Observations on man, his frame, his duty, and his expectations : In two parts. Part. I. Containing observations on the frame of the human body and mind, and on their mutual connexions and influences. Part. II. Containing observations on the duty and expectations of mankind / by David Hartley.

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Dr Bruce
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For his care and attention
while an out patient at the
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March 26th 1878

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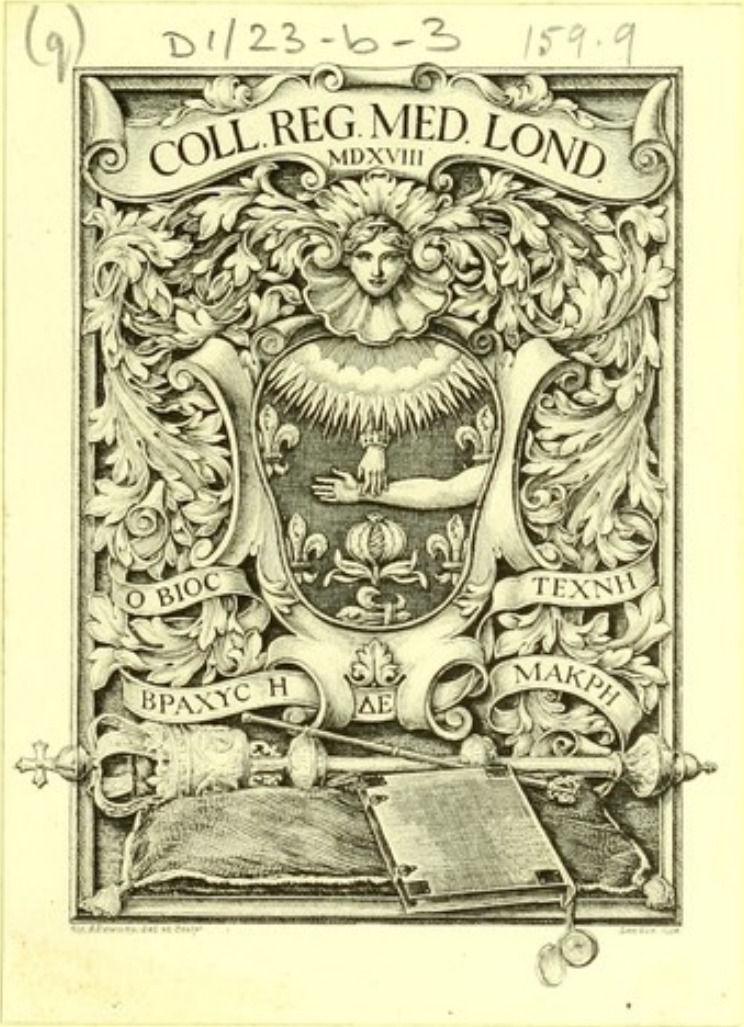

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OBSERVATIONS

ON

MAN,

HIS FRAME, HIS DUTY, AND HIS EXPECTATIONS.

IN TWO PARTS.

PART. I.

CONTAINING OBSERVATIONS ON THE

FRAME OF THE HUMAN BODY AND MIND,

AND ON THEIR

MUTUAL CONNEXIONS AND INFLUENCES.

PART. II.

CONTAINING OBSERVATIONS ON THE

DUTY AND EXPECTATIONS OF MANKIND.

By DAVID HARTLEY, M. A.

Reprinted from the Author's Edition in 1749.

TO WHICH ARE NOW ADDED,

NOTES AND ADDITIONS

TO THE SECOND PART;

Tranſlated from the German of the Rev. HERMAN ANDREW PISTORIUS, Rector of POSERITZ in the Iſland of RUGEN.

ALSO

A SKETCH OF THE LIFE AND CHARACTER,

AND A

HEAD OF THE AUTHOR.

LONDON:

PRINTED FOR J. JOHNSON, N°. 72, ST. PAUL'S CHURCH-YARD.

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THE BOOKSELLER's ADVERTISEMENT.

THIS Volume, as far as page 574, contains Dr. Hartley's Work entire, as publiſhed by himſelf, in two Parts, in the year 1749, without any alterations or additions.

The Notes and Additions to the Second Part, written by a learned German, Mr. Piſtorius, have been faithfully rendered into Engliſh, and added to this edition by the advice of ſome literary friends, who are well acquainted with Dr. Hartley's ſyſtem, and thought they would form a valuable addition to it.

A ſketch of the life and character of the Author, written by his ſon David Hartley, Eſq. is prefixed to the volume.

For the uſe of a portrait, from which an engraving has been taken by Mr. Blake, and the liberal encouragement given to the preſent edition by the Author's family, the bookſeller returns his thanks.

A SKETCH

A SKETCH

OF THE

LIFE and CHARACTER of Dr. HARTLEY.

DOCTOR DAVID HARTLEY was born on the 30th of Auguſt, 1705. He was the ſon of a very worthy and reſpectable clergyman at Armley, in the county of York. He received the firſt rudiments of inſtruction at a private ſchool, and his academical education at Cambridge. He was admitted at Jeſus' College at the age of fifteen years, and was afterwards elected a fellow of that ſociety. He was originally intended for the church, and proceeded for ſome time in his thoughts and ſtudies towards that object: but upon a cloſer conſideration of the conditions attached to the clerical profeſſion, he was reſtrained by ſome ſcruples which made him reluctant to ſubſcribe the thirty-nine articles. In conſequence of theſe ſcruples he became diſqualified for the purſuit of his firſt plan of devoting himſelf to the perſonal functions and ſervice of the church. However he ſtill continued to the end of his life a well affected member of the church of England, approving of its practical doctrines and conforming to its public worſhip. As the church of England maintains all the uſeful and practical doctrines of Chriſtian morality, he did not think it neceſſary to ſeparate himſelf from its communion on account of ſome conteſted articles of ſpeculative and abſtruſe opinion. He was a Catholic Chriſtian in the moſt extenſive and liberal ſenſe of that term. On the ſubject of religious controverſy he has left the following teſtimony of his ſentiments, in the laſt ſection of propoſition eighty-eight *on Religious Knowledge*; viz. " The great differ-
" ences of opinion and contentions which happen on religious matters

" are plainly owing to the violence of men's paſſions more than to any " other cauſe. When religion has had its due effect in reſtraining theſe, " and begetting true candour, we may expect a unity of opinion both in " religious and other matters, as far as is neceſſary for uſeful and prac- " tical purpoſes."

Though his talents were very general, yet undoubtedly his pre-eminent faculties were formed for the moral and religious ſciences. Theſe talents diſplayed themſelves in the earlieſt parts of life with ſo much diſtinction, as could not fail to hold out to his ambition a future career of honeſt fame, in the ſervice of the national church, if he could have complied with the conditions, conſiſtently with the ſatisfaction of his own mind. But he had at all times a moſt ſcrupulous and diſintereſted mind, which diſpoſed him in every part of his life, and under all circumſtances, to adhere firmly to thoſe principles which appeared to him to form the ſtrict and conſcientious line of moral duty. It proceeded therefore from the moſt ſerious ſcruples, irreſiſtibly impreſſed upon his mind, that he relinquiſhed the profeſſion of his firſt choice, which may properly be called the prerogative profeſſion of moral and religious philoſophy.

In conſequence of this determination he applied his talents and ſtudies to the medical profeſſion, in which he ſoon became equally and in the firſt degree eminent for ſkill, integrity, and charitable compaſſion. His mind was formed to benevolence and univerſal philanthropy. He exerciſed the healing art with anxious and equal fidelity to the poor and to the rich. He viſited, with affectionate ſympathy, the humbleſt receſſes of poverty and ſickneſs, as well as the ſtately beds of pampered diſtemper and premature decrepitude. His manners were gentle; his countenance affable; his eloquence moral and pathetic, not harſh or importunate; yet he was not unmindful that bodily ſickneſs ſoftens the mind to moral ſenſi-

bilities,

bilities, which afforded frequent opportunities to him of exerciſing mental charities to afflicted minds, whilſt he employed the powers of medical ſcience to the reſtoration of bodily health. He thus united all the talents of his own mind for natural and moral ſcience, conformably to that univerſal ſyſtem of final morality, which he inculcates, by which each effort of ſenſation or ſcience in the various gradations of life muſt be eſteemed defective, until it ſhall have attained to its correſponding moral conſummation.

It aroſe from the union above mentioned, of talents in the moral ſcience with natural philoſophy, and particularly from the profeſſional knowledge of the human frame, that Dr. Hartley was enabled to bring into one view the various arguments for his extenſive ſyſtem, from the firſt rudiments of ſenſation through the maze of complex affections and paſſions in the path of life, to the final, moral end of man.

He was induſtrious and indefatigable in the purſuit of all collateral branches of knowledge, and lived in perſonal intimacy with the learned men of his age. Dr. Law, Dr. Butler, Dr. Warburton, afterwards biſhops of Carliſle, Durham, and Glouceſter, and Dr. Jortin, were his intimate friends and fellow labourers in moral and religious philoſophy, in metaphyſics, in divinity and eccleſiaſtical hiſtory. He was much attached to the highly reſpected character of Dr. Hoadley, biſhop of Wincheſter, for the liberality of his opinions, both in church and ſtate, and for the freedom of his religious ſentiments. Dr. Hales, and Dr. Smith maſter of Trinity College in Cambridge, with other members of the Royal Society, were his companions in the ſciences of optics, ſtaticks, and other branches of natural philoſophy. Mr. Hawkins Browne, the author of an elegant Latin poem, *De Animi Immortalitate*, and Dr. Young, the moral poet, ſtood high in his eſteem. Dr. Byrom, the inventor of a ſcientific ſhort-hand writing, was much reſpected by him for uſeful and accurate judgment in the branch of philology. Mr.

Hooke, the Roman hiſtorian and diſciple of the Newtonian chronology, was amongſt his literary intimates.

The celebrated Mr. Pope was likewiſe admired by him, not only as a man of genius, but alſo as a moral poet. Yet, as Dr. Hartley was a zealous Chriſtian without guile, and (if the phraſe may be admitted) a partizan for the Chriſtian religion, he felt ſome jealouſy of the rivalſhip of human philoſophy, and regarded the Eſſay on Man, by Mr. Pope, as tending to inſinuate that the divine revelation of the Chriſtian religion was ſuperfluous, in a caſe where human philoſophy was adequate. He ſuſpected the ſecret influence of Lord Bolingbroke as guiding the poetical pen of his unſuſpecting friend, to deck out in borrowed plumes the plagiariſms of modern ethics from Chriſtian doctrines; not without farther diſtruſt of the inſidious effect of poetic licence, in ſoftening ſome rugged points of unaccommodating moral truths. It was againſt this principle that his jealouſy was directed. His heart, from conſcious ſympathy of human infirmities, was totally devoid of religious pride. His only anxiety was to preſerve the rule of life inviolate, becauſe he deemed errors of human frailty leſs injurious to the moral cauſe, than ſyſtematical perverſions of its principle.

It was in the ſociety and friendly intercourſe of the learned men above mentioned, and many others, that Dr. Hartley arranged his work and brought it to a concluſion. His genius was penetrating and active; his induſtry indefatigable; his philoſophical obſervations and attentions unremitting. From his earlieſt youth he was devoted to the ſciences; particularly to logic and mathematics. He ſtudied mathematics, together with natural and experimental philoſophy, under the celebrated profeſſor Saunderſon. He was an enthuſiaſtic admirer and diſciple of Sir Iſaac Newton in every branch of literature and philoſophy, natural and experimental, mathematical, hiſtorical and religious, which that immortal man diffuſed throughout the world. He received

his

his firſt principles of logic and metaphyſics from the works of that good and great philoſopher Locke. He took the firſt rudiments of his own work from Sir Iſaac Newton and Mr. Locke: the doctrine of vibrations, as inſtrumental to ſenſation and motion, from the former, and the principle of aſſociation originally from the latter, farther explained in a diſſertation by the Rev. Mr. Gay; as he himſelf has informed us. His work was begun when he was about twenty-five years of age; which is a very early period for deep and comprehenſive reſearches. And yet it remains upon his own authority, as declared by himſelf to his private friends and connexions, that the ſeeds of this work were lying in latent germination for ſome years antecedent even to that early bud, which in the work itſelf has diſplayed, in full maturity, the mechanical, rational, and moral ſyſtem of man, reſpecting his frame, his duty, and his expectations.

Dr. Hartley's work was publiſhed in the beginning of the year 1749, when he was a little more than forty-three years of age. It had been completed and finiſhed about two or three years before. He did not expect that it would meet with any general or immediate reception in the philoſophical world, or even that it would be much read or underſtood; neither did it happen otherwiſe than as he had expected. But at the ſame time he did entertain an expectation that, at ſome diſtant period, it would become the adopted ſyſtem of future philoſophers. That period ſeems now to be approaching.

He lived about nine years after the publication of his work. The labour of digeſting the whole ſyſtem, and of the compoſition, was exceedingly great and conſtant upon his mind for many years, as may eaſily be ſuppoſed from the very great ſcope of learning which it embraces. But after the completion and publication of it, his mind was left in perfect repoſe. He kept a general and vigilant attention upon the work, to receive and to conſider any ſubſequent thoughts which might have occurred

occurred from his own reflections, or from the ſuggeſtions of others, by which he might have modified or arranged any incongruous or diſcordant parts. But no ſuch alterations or modifications ſeem to have occurred to him: and at his death he left his original work untouched, without addition or diminution, without alteration or comment. He has left no additional paper on the ſubject whatſoever.

The learned and ingenious Dr. Prieſtley publiſhed in the year 1775 ſome parts of Dr. Hartley's works in an octavo volume, entitled, *Hartley's Theory of the Human Mind on the Principle of the Aſſociation of Ideas, with Eſſays on the Subject of it.* Dr. Prieſtley had commenced a correſpondence with the author a ſhort time before his death, and has in ſubſequent literary works commented with great acuteneſs and erudition upon his metaphyſical and moral ſyſtem.

The ſyſtem is in itſelf ſo extenſive, and was, at the time of its publication ſo entirely novel and original, that the author did not appear diſpoſed to multiply his anxieties for the particular fate of each tenet or doctrine; but he bequeathed the whole, as one compact and undivided ſyſtem, to the candour and mature judgment of time and poſterity. There was but one point in which he appeared anxious to prevent any miſapprehenſion of his principles: that point reſpected the immateriality of the ſoul. He was apprehenſive leſt the doctrine of corporeal vibrations, being inſtrumental to ſenſation, ſhould be deemed unfavourable to the opinion of the immateriality of the ſoul. He was therefore anxious to declare, and to have it underſtood, that he was not a materialiſt. He has not preſumed to declare any ſentiment reſpecting the nature of the ſoul, but the negative one, that it cannot be material according to any idea or definition that we can form of matter. He has given the following definition of matter, viz. "That it is a mere paſ-
"ſive thing, of whoſe very eſſence it is to be endued with a *vis inertiæ*;
"for this *vis inertiæ* preſents itſelf immediately in all our obſervations

" and experiments upon it, and is inſeparable from it, even in idea." The materiality therefore of the ſenſitive ſoul is precluded, by the definition of matter being incapable of ſenſation. If there be any other element capable of ſenſation, the ſoul may conſiſt of that element; but that is a new ſuppoſition, ſtill leaving the original queſtion concluded in the negative, by the fundamental definition of matter. If indeed we could ſuppoſe that matter may have ſome occult powers and properties, different and ſuperior to thoſe which appear to us, ſo that it might be endued with the moſt ſimple kinds of ſenſation, it might then attain, according to the demonſtrations of the author's theory, to all that intelligence of which the human mind is poſſeſſed; that is to ſay, through all the paths of ſenſation, imagination, ambition, ſelf-intereſt, ſympathy and theopathy, finally to the moral ſenſe. And if to the moral ſenſe, whatever may be the origin of the ſoul by divine creation, whether material or immaterial, tranſitory or deſtined to immortality, it is a moral eſſence, the nobleſt work of God.

The philoſophical character of Dr. Hartley is delineated in his works. The features of his private and perſonal character were of the ſame complexion. It may with peculiar propriety be ſaid of him, that the mind was the man. His thoughts were not immerſed in worldly purſuits or contentions, and therefore his life was not eventful or turbulent, but placid and undiſturbed by paſſion or violent ambition. From his earlieſt youth his mental ambition was pre-occupied by purſuits of ſcience. His hours of amuſement were likewiſe beſtowed upon objects of taſte and ſentiment. Muſic, poetry, and hiſtory were his favourite recreations. His imagination was fertile and correct, his language and expreſſion fluent and forcible. His natural temper was gay, cheerful, and ſociable. He was addicted to no vice in any part of his life, neither to pride, nor to ſenſuality, nor intemperance, nor oſtentation, nor envy, nor to any ſordid ſelf-intereſt: but his heart was replete with every

contrary

contrary virtue. The virtuous principles which are inſtilled in his works were the invariable and decided principles of his life and conduct.

His perſon was of the middle ſize and well proportioned. His complexion fair, his features regular and handſome. His countenance open, ingenuous and animated. He was peculiarly neat in his perſon and attire. He was an early riſer, and punctual in the employments of the day; methodical in the order and diſpoſition of his library, papers and writings, as the companions of his thoughts, but without any pedantry, either in theſe habits, or in any other part of his character. His behaviour was polite, eaſy, and graceful; but that which made his addreſs peculiarly engaging, was the benevolence of heart from which that politeneſs flowed. He never converſed with a fellow creature without feeling a wiſh to do him good. He conſidered the moral end of our creation to conſiſt in the performance of the duties of life attached to each particular ſtation, to which all other conſiderations ought to be inferior and ſubordinate, and conſequently that the rule of life conſiſts in training and adapting our faculties, through the means of moral habits and aſſociations, to that end. In this he was the faithful diſciple of his own theory, and by the obſervance of it he avoided the tumult of worldly vanities and their diſquietudes, and preſerved his mind in ſerenity and vigour, to perform the duties of life with fidelity, and without diſtraction. His whole character was eminently and uniformly marked by Sincerity of heart, Simplicity of manners, and manly Innocence of mind. He died at Bath on the 28th of Auguſt, 1757, at the age of fifty-two years.

He was twice married, and has left iſſue by both marriages now living:
From whom this memorial teſtimony is the tribute of
Truth, Piety, and Affection.

THE

PREFACE.

THE work here offered to the public conſiſts of papers written at different times, but taking their riſe from the following occaſion.

About eighteen years ago I was informed, that the Rev. Mr. GAY, then living, aſſerted the poſſibility of deducing all our intellectual pleaſures and pains from aſſociation. This put me upon conſidering the power of aſſociation. Mr. GAY publiſhed his ſentiments on this matter, about the ſame time, in a Diſſertation on the fundamental Principle of Virtue, prefixed to Mr. Archdeacon LAW's Tranſlation of Archbiſhop KING's Origin of Evil.

From inquiring into the power of aſſociation I was led to examine both its conſequences, in reſpect of morality and religion, and its phyſical cauſe. By degrees many diſquiſitions foreign to the doctrine of aſſociation, or at leaſt not immediately connected with it, intermixed themſelves. I have here put together all my ſeparate papers on theſe ſubjects, digeſting them in ſuch order as they ſeemed naturally to ſuggeſt; and adding ſuch things as were neceſſary to make the whole appear more complete and ſyſtematical.

I think, however, that I cannot be called a ſyſtem-maker, ſince I did not firſt form a ſyſtem, and then ſuit the facts to it, but was carried on by a train of thoughts from one thing to another, frequently without any expreſs deſign, or even any previous ſuſpicion of the conſequences that might ariſe. And this was moſt remarkably the caſe, in reſpect of the doctrine of *neceſſity*; for I was not at all aware, that it followed from that of aſſociation, for ſeveral years after I had begun my inquiries; nor did I admit it at laſt without the greateſt reluctance.

There are two things in theſe papers, which require a particular apology. Firſt, The imperfect ſtate in which they are preſented to the reader. Secondly, The great freedom which I have uſed in reſpect of all orders of men in the concluſion of the ſecond part.

As to the firſt; If the reader will be ſo favourable to me as to expect nothing more than hints and conjectures in difficult and obſcure matters, and a ſhort detail of the principal reaſons and evidences in thoſe that are clear, I hope he will not be much diſappointed. However, be this

this as it will, I have in one part or other of theſe papers alleged all that I know material, in ſupport of my ſyſtem; and therefore am now deſirous to recommend it to the conſideration of others.

I have tried to reconcile ſuch inconſiſtencies, real or apparent, and to cut off ſuch repetitions and redundancies, as have ariſen from my writing the ſeparate parts of this work at different times, and in different ſituations of mind. But I have ſtill need of great indulgence from the reader on theſe and other accounts.

As to the ſecond thing; I can truly ſay, that my free and unreſerved manner of ſpeaking has flowed from the ſincerity and earneſtneſs of my heart. But I will not undertake to juſtify all that I have ſaid. Some things may be too haſty and cenſorious; or, however, be unbecoming my place and ſtation. I heartily wiſh, that I could have obſerved the true medium. For, want of candour is not leſs an offence againſt the goſpel of Chriſt, than falſe ſhame, and want of courage in his cauſe.

Some perſons may perhaps think, that I ought not to have delivered my opinions ſo freely and openly, concerning the neceſſity of human actions, and the ultimate happineſs of all mankind; but have left the reader to deduce theſe conſequences, or not, as ſhould appear moſt reaſonable to him. But this would, in my opinion, have been a diſingenuous procedure. Beſides, theſe tenets appear to me not only innocent, but even highly conducive to the promotion of piety and virtue amongſt mankind. However, that no one may miſapprehend me to his own hurt, I will here make two remarks by way of anticipation.

Firſt, then, I no where deny practical free-will, or that voluntary power over our affections and actions, by which we deliberate, ſuſpend, and chooſe, and which makes an eſſential part of our ideas of virtue and vice, reward and puniſhment; but, on the contrary, eſtabliſh it (if ſo plain a thing will admit of being farther eſtabliſhed) by ſhewing in what manner it reſults from the frame of our natures.

Secondly, I do moſt firmly believe, upon the authority of the ſcriptures, that the future puniſhment of the wicked will be exceedingly great both in degree and duration, *i. e.* infinite and eternal, in that real practical ſenſe to which alone our conceptions extend. And were I able to urge any thing upon a profane careleſs world, which might convince them of the infinite hazard to which they expoſe themſelves, I would not fail to do it, as the reader may judge even from thoſe paſſages for which I have above apologized.

DECEMBER, 1748.

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OBSERVATIONS

OBSERVATIONS

ON

MAN, *&c.*

IN TWO PARTS.

PART I.

Containing OBSERVATIONS *on the* FRAME *of the* HUMAN BODY *and* MIND, *and on their* MUTUAL CONNECTIONS *and* INFLUENCES.

INTRODUCTION.

MAN conſiſts of two parts, body and mind.

The firſt is ſubjected to our ſenſes and inquiries, in the ſame manner as the other parts of the external material world.

The laſt is that ſubſtance, agent, principle, &c. to which we refer the ſenſations, ideas, pleaſures, pains, and voluntary motions.

Senſations are thoſe internal feelings of the mind, which ariſe from the impreſſions made by external objects upon the ſeveral parts of our bodies.

All our other internal feelings may be called *ideas*. Some of theſe appear to ſpring up in the mind of themſelves, ſome are ſuggeſted by words, others ariſe in other ways. Many writers comprehend *ſenſations* under *ideas*; but I every where uſe theſe words in the ſenſes here aſcribed to them.

The ideas which reſemble ſenſations, are called *ideas of ſenſation*: all the reſt may therefore be called *intellectual ideas*.

It will appear in the courſe of theſe obſervations, that the *ideas of ſenſation* are the elements of which all the reſt are compounded. Hence *ideas of ſenſation* may be termed *ſimple*, *intellectual* ones *complex*.

The *pleaſures* and *pains* are comprehended under the ſenſations and ideas, as theſe are explained above. For all our pleaſures and pains are internal feelings, and, converſely, all our internal feelings ſeem to be attended with ſome degree either of *pleaſure* or *pain*. However, I ſhall, for the moſt part, give the names of *pleaſure* and *pain* only to ſuch degrees as are conſiderable; referring all low, evaneſcent ones to the head of *mere ſenſations* and *ideas*.

The pleaſures and pains may be ranged under ſeven general claſſes, viz.

1. Senſation;
2. Imagination;
3. Ambition;
4. Self-intereſt;
5. Sympathy;
6. Theopathy; and,
7. The moral ſenſe; according as they ariſe from,

1. The impreſſions made on the external ſenſes;
2. Natural or artificial beauty or deformity;
3. The opinions of others concerning us;
4. Our poſſeſſion or want of the means of happineſs, and ſecurity from, or ſubjection to, the hazards of miſery;
5. The pleaſures and pains of our fellow-creatures;
6. The affections excited in us by the contemplation of the Deity; or,
7. Moral beauty and deformity.

The human mind may alſo be conſidered as indued with the faculties of *memory*, *imagination* or *fancy*, *underſtanding*, *affection*, and *will*.

Memory is that faculty, by which traces of ſenſations and ideas recur, or are recalled, in the ſame order and proportion, accurately or nearly, as they were once actually preſented.

When ideas, and trains of ideas, occur, or are called up, in a vivid manner, and without regard to the order of former actual impreſſions and perceptions, this is ſaid to be done by the power of *imagination* or *fancy*.

The *underſtanding* is that faculty, by which we contemplate mere ſenſations and ideas, purſue truth, and aſſent to, or diſſent from, propoſitions.

The *affections* have the pleaſures and pains for their objects; as the *underſtanding* has the mere ſenſations and ideas. By the affections we are excited to purſue happineſs, and all its means, fly from miſery, and all its apparent cauſes.

The

The *will* is that ſtate of mind, which is immediately previous to, and cauſes, thoſe expreſs acts of memory, fancy, and bodily motion, which are termed *voluntary*.

The *motions* of the body are of two kinds, *automatic* and *voluntary*. The *automatic* motions are thoſe which ariſe from the mechaniſm of the body in an evident manner. They are called *automatic*, from their reſemblance to the motions of *automata*, or machines, whoſe principle of motion is within themſelves. Of this kind are the motion of the heart, and periſtaltic motion of the bowels. The *voluntary motions* are thoſe which ariſe from ideas and affections, and which therefore are referred to the mind; the immediately preceding ſtate of the mind, or of the ideas and affections, being termed *will*, as noted in the laſt article. Such are the actions of walking, handling, ſpeaking, &c. when attended to, and performed with an expreſs deſign.

This may ſerve as a ſhort account of the chief ſubjects conſidered in the firſt part of theſe *obſervations*. Theſe ſubjects are ſo much involved in each other, that it is difficult, or even impoſſible, to begin any where upon clear ground, or ſo as to proceed entirely from the *Data* to the *Quæſita*, from things known to ſuch as are unknown. I will endeavour it as much as I can, and for that purpoſe ſhall obſerve the following order.

Firſt, I ſhall lay down the general laws, according to which the ſenſations and motions are performed, and our ideas generated.

Secondly, I ſhall conſider each of the ſenſations and motions in particular, and inquire how far the phænomena of each illuſtrate, and are illuſtrated by, the foregoing general laws.

Thirdly, I ſhall proceed in like manner to the particular phænomena of ideas, or of underſtanding, affection, memory, and imagination; applying to them what has been before delivered.

Laſtly, I ſhall endeavour to give a particular hiſtory and analyſis of the ſix claſſes of intellectual pleaſures and pains, viz. thoſe of imagination, ambition, ſelf-intereſt, ſympathy, theopathy, and the moral ſenſe.

OF THE

DOCTRINES OF VIBRATIONS

AND

ASSOCIATION IN GENERAL.

CHAP. I.

Of the GENERAL LAWS *according to which the* SENSATIONS *and* MOTIONS *are performed, and our* IDEAS GENERATED.

MY chief deſign in the following chapter, is, briefly, to explain, eſtabliſh, and apply the doctrines of *vibrations* and *aſſociation*. The firſt of theſe doctrines is taken from the hints concerning the performance of ſenſation and motion, which Sir *Iſaac Newton* has given at the end of his *Principia*, and in the *queſtions* annexed to his *Optics*; the laſt, from what Mr. *Locke*, and other ingenious perſons ſince his time, have delivered concerning the influence of *aſſociation* over our opinions and affections, and its uſe in explaining thoſe things in an accurate and preciſe way, which are commonly referred to the power of habit and cuſtom, in a general and indeterminate one.

The doctrine of *vibrations* may appear at firſt ſight to have no connection with that of *aſſociation*; however, if theſe doctrines be found in fact to contain the laws of the bodily and mental powers reſpectively, they muſt be related to each other, ſince the body and mind are. One may expect, that *vibrations* ſhould infer *aſſociation* as their effect, and *aſſociation* point to *vibrations* as its cauſe. I will endeavour, in the preſent chapter, to trace out this mutual relation.

The proper method of philoſophizing ſeems to be, to diſcover and eſtabliſh the general laws of action, affecting the ſubject under conſideration, from certain ſelect, well-defined, and well-atteſted phænomena, and then to explain and predict the other phænomena by theſe laws. This is the method of analyſis and ſyntheſis recommended and followed by Sir *Iſaac Newton*.

I ſhall

I ſhall not be able to execute, with any accuracy, what the reader might expect of this kind, in reſpect of the doctrines of *vibrations* and *aſſociation*, and their general laws, on account of the great intricacy, extenſiveneſs, and novelty of the ſubject. However, I will attempt a ſketch in the beſt manner I can, for the ſervice of future inquirers.

SECT. I.

OF THE DOCTRINE OF VIBRATIONS, AND ITS USE FOR EXPLAINING THE SENSATIONS.

PROP. I.

The white medullary Subſtance of the Brain, ſpinal Marrow, and the Nerves proceeding from them, is the immediate Inſtrument of Senſation and Motion.

UNDER the word *brain*, in theſe *obſervations*, I comprehend all that lies within the cavity of the ſkull, *i. e.* the *cerebrum*, or *brain* properly ſo called, the *cerebellum*, and the *medulla oblongata*.

This propoſition ſeems to be ſufficiently proved in the writings of phyſicians and anatomiſts; from the ſtructure and functions of the ſeveral organs of the human body; from experiments on living animals; from the ſymptoms of diſeaſes, and from diſſections of morbid bodies. Senſibility, and the power of motion, ſeem to be conveyed to all the parts, in their natural ſtate, from the brain and ſpinal marrow, along the nerves. Theſe ariſe from the medullary, not the cortical part, every where, and are themſelves of a white medullary ſubſtance. When the nerves of any part are cut, tied, or compreſſed in any conſiderable degree, the functions of that part are either entirely deſtroyed, or much impaired. When the ſpinal marrow is compreſſed by a diſlocation of the *vertebræ* of the back, all the parts, whoſe nerves ariſe below the place of diſlocation, become paralytic. When any conſiderable injury is done to the medullary ſubſtance of the brain, ſenſation, voluntary motion, memory, and intellect, are either entirely loſt, or much impaired; and if the injury be very great, this extends immediately to the vital motions alſo, viz. to thoſe of the heart, and organs of reſpiration, ſo as to occaſion death. But this does not hold equally in reſpect of the cortical ſubſtance of the brain; perhaps not at all, unleſs as far as injuries done to it extend themſelves to the medullary ſubſtance. In diſſections after apoplexies, palſies, epilepſies, and other diſtempers affecting the ſenſations and motions, it is uſual to find ſome great diſorder in the brain, from preternatural tumors, from blood, matter, or ſerum, lying upon the brain, or in its ventricles, &c. This may ſuffice as general evidence for the preſent. The particular reaſons of ſome of theſe phænomena, with more definite evidences, will offer themſelves in the courſe of theſe *obſervations*.

SECT.

PROP. II.

The white medullary Subſtance of the Brain is alſo the immediate Inſtrument, by which Ideas are preſented to the Mind: or, in other Words, whatever Changes are made in this Subſtance, correſponding Changes are made in our Ideas; and vice verſâ.

THE evidence for this propoſition is alſo to be taken from the writings of phyſicians and anatomiſts; but eſpecially from thoſe parts of theſe writings, which treat of the faculties of memory, attention, imagination, &c. and of mental diſorders. It is ſufficiently manifeſt from hence, that the perfection of our mental faculties depends upon the perfection of this ſubſtance; that all injuries done to it, affect the trains of ideas proportionably; and that theſe cannot be reſtored to their natural courſe, till ſuch injuries be repaired. Poiſons, ſpirituous liquors, opiates, fevers, blows upon the head, &c. all plainly affect the mind, by firſt diſordering the medullary ſubſtance. And evacuations, reſt, medicines, time, &c. as plainly reſtore the mind to its former ſtate, by reverſing the foregoing ſteps. But there will be more and more definite evidence offered in the courſe of theſe *obſervations*.

PROP. III.

The Senſations remain in the Mind for a ſhort Time after the ſenſible Objects are removed.

THIS is very evident in the ſenſations impreſſed on the eye. Thus, to uſe Sir *Iſaac Newton*'s words, "If a burning coal be nimbly moved round in a circle, with gyrations "continually repeated, the whole circle will appear like fire; the reaſon of which is, "that the ſenſation of the coal, in the ſeveral places of that circle, *remains impreſſed* "*on the ſenſorium*, until the coal return again to the ſame place. And ſo in a quick "conſecution of the colours" (viz. red, yellow, green, blue, and purple, mentioned in the experiment, whence this paſſage is taken) "the impreſſion of every colour "*remains on the ſenſorium*, until a revolution of all the colours be completed, and that "firſt colour return again. The impreſſions therefore of all the ſucceſſive colours, "*are at once in the ſenſorium*—and beget a ſenſation of white." *Opt.* B. I. p. 2. *Experiment* 10.

Thus alſo, when a perſon has had a candle, a window, or any other lucid and well-defined object, before his eyes, for a conſiderable time, he may perceive a very clear and preciſe image thereof to be left in the *ſenſorium*, fancy, or mind (for theſe I conſider as equivalent expreſſions in our entrance upon theſe diſquiſitions), for ſome time after he has cloſed his eyes. At leaſt this will happen frequently to perſons, who are attentive to theſe things, in a gentle way: for as this appearance eſcapes the notice of thoſe who are entirely inattentive, ſo too earneſt a deſire and attention prevents it, by introducing another ſtate of mind or fancy.

To

To theſe may be referred the appearance mentioned by Sir *Iſaac Newton, Opt. Qu.* 16. viz. " When a man in the dark preſſes either corner of his eye with his finger, and " turns his eye away from his finger, he will ſee a circle of colours like thoſe in the " feather of a peacock's tail. And this appearance continues about a ſecond of time, " after the eye and finger have remained quiet." The ſenſation continues therefore in the mind about a ſecond of time after its cauſe ceaſes to act.

The ſame continuance of the ſenſations is alſo evident in the ear. For the ſounds which we hear, are reflected by the neighbouring bodies; and therefore conſiſt of a variety of ſounds, ſucceeding each other at different diſtances of time, according to the diſtances of the ſeveral reflecting bodies; which yet cauſes no confuſion, or apparent complexity of ſound, unleſs the diſtance of the reflecting bodies be very conſiderable, as in ſpacious buildings. Much leſs are we able to diſtinguiſh the ſucceſſive pulſes of the air, even in the graveſt ſounds.

As to the ſenſes of taſte and ſmell, there ſeems to be no clear direct evidence for the continuance of their ſenſations, after the proper objects are removed. But analogy would incline one to believe, that they muſt reſemble the ſenſes of ſight and hearing in this particular, though the continuance cannot be perceived diſtinctly, on account of the ſhortneſs of it, or other circumſtances. For the ſenſations muſt be ſuppoſed to bear ſuch an analogy to each other, and ſo to depend in common upon the brain, that all evidences for the continuance of ſenſations in any one ſenſe, will extend themſelves to the reſt. Thus all the ſenſes may be conſidered as ſo many kinds of feeling; the taſte is nearly allied to the feeling, the ſmell to the taſte, and the ſight and hearing to each other. All which analogies will offer themſelves to view, when we come to examine each of theſe ſenſes in particular.

In the ſenſe of feeling, the continuance of heat, after the heating body is removed, and that of the ſmart of a wound, after the inſtant of infliction, ſeem to be of the ſame kind with the appearances taken notice of in the eye and ear.

But the greateſt part of the ſenſations of this ſenſe reſemble thoſe of taſte and ſmell, and vaniſh to appearance as ſoon as the objects are removed.

PROP. IV.

External Objects impreſſed upon the Senſes occaſion, firſt in the Nerves on which they are impreſſed, and then in the Brain, Vibrations of the ſmall, and, as one may ſay, infiniteſimal, medullary Particles.

THESE vibrations are motions backwards and forwards of the ſmall particles; of the ſame kind with the oſcillations of pendulums, and the tremblings of the particles of ſounding bodies. They muſt be conceived to be exceedingly ſhort and ſmall, ſo as not to have the leaſt efficacy to diſturb or move the whole bodies of the nerves or brain.

brain. For that the nerves themſelves ſhould vibrate like muſical ſtrings, is highly abſurd; nor was it ever aſſerted by Sir *Iſaac Newton*, or any of thoſe who have embraced his notion of the performance of ſenſation and motion, by means of *vibrations*.

In like manner, we are to ſuppoſe the particles which vibrate, to be of the inferior orders, and not thoſe biggeſt particles, on which the operations in chemiſtry, and the colours of natural bodies, depend, according to the opinion of Sir *Iſaac Newton*. Hence, in the *propoſition*, I term the medullary particles, which vibrate, *infiniteſimal*.

Now that external objects impreſs vibratory motions upon the medullary ſubſtance of the nerves and brain (which is the immediate inſtrument of ſenſation, according to the *firſt propoſition*), appears from the continuance of the ſenſations mentioned in the third; ſince no motion, beſides a vibratory one, can reſide in any part for the leaſt moment of time. External objects, being corporeal, can act upon the nerves and brain, which are alſo corporeal, by nothing but impreſſing motion on them. A vibrating motion may continue for a ſhort time in the ſmall medullary particles of the nerves and brain, without diſturbing them, and after a ſhort time would ceaſe; and ſo would correſpond to the above-mentioned ſhort continuance of the ſenſations; and there ſeems to be no other ſpecies of motion that can correſpond thereto.

Cor. As this *propoſition* is deduced from the foregoing, ſo if it could be eſtabliſhed upon independent principles (of which I ſhall treat under the next), the foregoing might be deduced from it. And, on this ſuppoſition, there would be an argument for the continuance of the ſenſations, after the removal of their objects; which would extend to the ſenſes of feeling, taſte, and ſmell, in the ſame manner as to thoſe of ſight and hearing.

PROP. V.

The Vibrations mentioned in the laſt Propoſition are excited, propagated, and kept up, partly by the Æther, i. e. *by a very ſubtle and elaſtic Fluid, and partly by the Uniformity, Continuity, Softneſs, and active Powers of the medullary Subſtance of the Brain, ſpinal Marrow, and Nerves.*

This *propoſition* is chiefly an evidence and explanation of the foregoing; and accordingly might have been included in it. However, as it is of great importance in the preſent ſubject, I thought it beſt to give it a diſtinct place and conſideration.

Before I enter upon the proof of it, it will be proper to premiſe ſomething by way of explanation, concerning the æther, and the qualities of the medullary ſubſtance juſt mentioned.

Sir *Iſaac Newton* ſuppoſes, that a very ſubtle and elaſtic fluid, which he calls *æther*, for the ſake of treating upon it commodiouſly under an appropriated name, is diffuſed through the pores of groſs bodies, as well as through the open ſpaces, that are void of groſs matter. He ſuppoſes likewiſe, that it is rarer in the pores of bodies than in open

ſpaces, and even rarer in ſmall pores and denſe bodies, than in large pores and rare bodies; and alſo, that its denſity increaſes in receding from groſs matter, ſo, for inſtance, as to be greater at the $\frac{1}{100}$ of an inch from the ſurface of any body than at its ſurface; and ſo on. To the action of this æther he aſcribes the attractions of gravitation and coheſion, the attractions and repulſions of electrical bodies, the mutual influences of bodies and light upon each other, the effects and communication of heat, and the performance of animal ſenſation and motion. My buſineſs in theſe *obſervations*, is only with the laſt; but the reader will do well to conſult what Sir *Iſaac Newton* has himſelf advanced concerning the exiſtence of this æther, and the properties and powers which he has aſcribed to it, in the laſt paragraph of his *Principia*, the *queſtions* annexed to his *Optics*, and a *Letter* from him to Mr. *Boyle*, lately publiſhed in Mr. *Boyle*'s Life. As to myſelf, I am not ſatisfied, that I underſtand him perfectly on this ſubject. I will hint a few things partly from him, partly from my own reflections, concerning the exiſtence and properties of this æther.

Since a thermometer kept, *in vacuo*, varies with the heat and cold of the room, in which it is placed, as much as another ſurrounded by air; and ſince the ſmall parts of hot bodies probably vibrate to and fro, and by thus vibrating keep up the heat for a certain time; one may conjecture, that a ſubtle medium remains after the air is exhauſted, and that heat is communicated to the thermometer ſuſpended *in vacuo* by the vibrating motions of this medium. See *Opt. Qu.* 18.

The greater denſity of the æther at a diſtance from bodies than at their ſurface, may be conjectured from the various phænomena ſolved by this ſuppoſition; which phænomena may alſo be alleged as probable evidences of the exiſtence of the æther. See *Opt. Qu.* and the *Letter to Mr. Boyle.*

The great ſubtlety and elaſticity of the æther may be inferred from the motions of the planets, and quick propagation of light, if we firſt ſuppoſe its exiſtence, and concurrence in the propagation of light, and efficacy in cauſing gravity. And from its great elaſticity we may infer, that it is extremely ſuſceptible of vibrations and pulſes, in the ſame manner as common air. See *Opt. Quer.*

Since the groſs bodies that lie upon the ſurface of the earth emit air particles, conſtituting a thin, elaſtic fluid, of great efficacy in performing the ordinary operations of nature, it ſeems not unnatural to expect, that the ſmall particles of bodies ſhould emit a proportionably attenuated air, *i. e.* an æther, which may likewiſe have a great ſhare in the ſubtle actions of the ſmall particles of bodies over each other. The emiſſion of odoriferous particles, light, magnetical and electrical effluvia, may alſo be ſome preſumption in favour of the exiſtence of the æther. Moreover, it is reaſonable to expect, that it ſhould have a repulſive force in reſpect of the bodies which emit it; and for the ſame reaſons, its particles may repel each other. It may therefore be elaſtic, compreſſible, and apt to receive vibrations from the laſt cauſe; and, from the firſt, may be rarer within the pores of bodies than in large open ſpaces, and grow

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denſer as the diſtance from groſs matter increaſes. Our air is indeed denſer near the earth than in the higher regions; but this is owing to its gravity, prevailing againſt its expanſive force. If we ſuppoſe the gravity of the æther to be very ſmall, and its elaſticity or expanſive and repulſive force very great, both which muſt be ſuppoſed, if we admit it at all in the manner propoſed by Sir *Iſaac Newton*, its denſity may increaſe in receding from groſs matter, and be much leſs in the pores of bodies, than in open ſpaces void of groſs matter. Thus we may ſuppoſe even the air, which remains in the large pores of ſuch bodies as repel its particles, to be rarer than the common external air.

Laſtly, Let us ſuppoſe the exiſtence of the æther, with theſe its properties, to be deſtitute of all direct evidence, ſtill, if it ſerves to explain and account for a great variety of phænomena, it will have an indirect evidence in its favour by this means. Thus we admit the key of a cypher to be a true one, when it explains the cypher completely; and the decypherer judges himſelf to approach to the true key, in proportion as he advances in the explanation of the cypher; and this without any direct evidence at all. And as the falſe and imperfect keys, which turn up to the decypherer in his reſearches, prepare the way for the diſcovery of the true and complete one, ſo any hypotheſis that has ſo much plauſibility, as to explain a conſiderable number of facts, helps us to digeſt theſe facts in proper order, to bring new ones to light, and to make *Experimenta Crucis* for the ſake of future inquirers. The rule of falſe affords an obvious and ſtrong inſtance of the poſſibility of being led, with preciſion and certainty to a true concluſion from a falſe poſition; and it is of the very eſſence of algebra to proceed in the way of ſuppoſition.

We come next to conſider the uniformity and continuity of the white medullary ſubſtance of the brain, ſpinal marrow, and nerves. Now theſe are evident to the eye, as far as that can be a judge of them. The white medullary ſubſtance appears to be every where uniform and ſimilar to itſelf throughout the whole brain, ſpinal marrow, and nerves; and though the cortical ſubſtance be mixed with the medullary in the brain, and ſpinal marrow, and perhaps in the ganglions and plexuſes, yet it does not appear, that the communication of any one part of the medullary ſubſtance with every other, is cut off any where by the intervention of the cortical. There is no part of the medullary ſubſtance ſeparated from the reſt, but all make one continuous white body; ſo that if we ſuppoſe vibrations apt to run freely along this body from its uniformity, they muſt pervade the whole, in whatever part they are firſt excited, from its continuity.

The exceſſive minuteneſs of the veſſels of which the medullary ſubſtance conſiſts, may alſo be conceived as inferring its uniformity and continuity. Theſe veſſels are, by all anatomiſts and phyſiologiſts, ſuppoſed to ariſe from thoſe of the cortical ſubſtance, this being agreeable to the analogy of the other parts of the body. And it follows from the ſame analogy, that they muſt be ſmaller than thoſe veſſels from which they ariſe. But

the finer orders of the veſſels of the cortical ſubſtance are far too minute to admit of the moſt ſubtle injections, the beſt injectors having never penetrated farther than the groſſer orders of veſſels in the cortical ſubſtance. We may therefore well ſuppoſe, that the medullary ſubſtance conſiſts of a texture of veſſels ſo ſmall and regular, as that it may have no vacuity or interval in it, ſufficient to interrupt or diſturb the vibrations of the æther, and concomitant ones of the ſmall medullary particles, propagated through this ſubſtance in the manner to be deſcribed below.

The ſoftneſs of the medullary ſubſtance is, in like manner, evident to the ſenſes, and the natural conſequence of the extreme ſmallneſs of the compounding veſſels, and fluids circulating through them.

If we admit the foregoing account of the uniform continuous texture of the medullary ſubſtance, it will follow, that the nerves are rather ſolid capillaments, according to Sir *Iſaac Newton*, than ſmall *tubuli*, according to *Boerhaave*. And the ſame concluſion ariſes from admitting the doctrine of *vibrations*. The *vibrations* hereafter to be deſcribed may more eaſily be conceived to be propagated along ſolid capillaments, ſo uniform in their texture as to be pellucid when ſingly taken, than a long hollow *tubuli*. For the ſame reaſons, the doctrine of *vibrations* will ſcarce permit us to ſuppoſe the brain to be a gland properly ſo called; ſince the difformity of texture required in a gland, appears inconſiſtent with the free propagation of vibrations. Neither can we conclude the brain to be a gland, from the great quantity of blood ſent to it by the heart. It is probable indeed, that this is required on account of the important functions of accretion, nutrition, ſenſation, and motion, which are plainly performed by the brain. But then theſe functions admit of as eaſy an explanation on the hypotheſis here propoſed, as on that of a glandular ſecretion, called nervous fluid, animal ſpirits, &c. In the mean time, I cannot but acknowledge many, or even moſt things, in the *Boerhaavian* doctrine concerning the ſtructure and functions of the brain, to be beautiful, juſt, and uſeful. And it may even be, that the doctrine of a glandular ſecretion, properly qualified, is not inconſiſtent with that of vibrations.

Sir *Iſaac Newton* ſuppoſes the nerves, when ſingly taken, to be pellucid, becauſe otherwiſe they could not be ſufficiently uniform for the purpoſe of tranſmitting vibrations freely to and from the brain; the opacity of any body being, according to him, an argument, that its pores are ſo large and irregular, as to diſturb and interrupt the vibrations of the æther. For the ſame reaſons, we muſt ſuppoſe the fibrils of the medullary ſubſtance of the brain to be pellucid, when ſingly taken. And this conſideration may incline one to conjecture, that, in palſies, the infiniteſimal veſſels of the fibrils of the brain, and capillaments of the nerves, are ſo obſtructed, as to render theſe fibrils and capillaments white and opake, in the ſame manner as the hair in old age, or the *Cornea* in an *Albugo*.

Since the *Pia Mater*, with its blood veſſels, enters the interſtices of the ſeveral folds of the brain, one may ſuſpect, that it penetrates not only the cortical ſubſtance, but alſo the

the medullary, along with the ſeveral deſcending orders of veſſels, and conſequently that it divides and ſubdivides the medullary ſubſtance into various greater and leſſer regions. One may affirm at leaſt, that ſuch a diſtribution of the *Pia Mater* would be greatly analagous to that of the cellular membrane, through the ſyſtem of muſcles, their ſeparate portions, fibres, and fibrils. But then we may reaſonably ſuppoſe the *Pia Mater* to be ſo attenuated in theſe its proceſſes, as that the medullary ſubſtance may ſtill remain ſufficiently uniform for the free propagation of vibrations. Or, if there be ſome little impediment and confinement in certain regions, on account of ſome exceedingly ſmall continuity, ariſing from this intervention of the *Pia Mater* between certain regions, it may, as it ſeems to me, ſuit this theory rather better than an abſolute and perfect continuity, as before ſuppoſed. It is reaſonable alſo to think, that the nerves of different parts have innumerable communications with each other in the brain, in the ganglions (which are, as it were, little brains, according to the opinion of *Winſlow*), and even in the plexuſes; and that many phænomena, particularly thoſe of the ſympathetic kind, are deducible from theſe communications. But as it ſeems impoſſible to trace out theſe communications anatomically, on account of the great ſoftneſs of the brain, we muſt content ourſelves with ſuch conjectures as the phænomena ſhall ſuggeſt, trying them by one another, and admitting for the preſent thoſe which appear moſt conſiſtent upon the whole, till farther light appears. The ſame, or even a greater, obſcurity attends all inquiries into the uſes of the particular ſhape and protuberances of the medullary ſubſtance of the brain.

We come, in the laſt place, to conſider what active properties may belong to the ſmall particles of the medullary ſubſtance, *i. e.* to the ſmall particles which compoſe either the ultimate veſſels of this ſubſtance, or the fluid which circulates in theſe ultimate veſſels. The common doctrine concerning the powers of the nervous ſyſtem ſuppoſes the fluid ſecreted by, and circulating through, the medullary ſubſtance, to be of a very active nature; and this may be, though the taſte of the medullary ſubſtance in brute animals diſcovers no ſuch activity. For the power of impreſſing taſtes ſeems to reſide in particles much larger than thoſe which we are here conſidering. And it is ſufficiently obvious, that many poiſons, mineral, vegetable, and animal, have the moſt active properties concealed under inſipid, or at leaſt moderate ſavours. Now that ſome powers of attraction or repulſion, or rather of both at different diſtances, reſide in the ſmall particles of the medullary ſubſtance, can ſcarce be doubted after ſo many inſtances and evidences, as Sir *Iſaac Newton* has produced, of attractive and repulſive powers in the ſmall particles of various bodies, *Optics*, *Query* 31. meaning, as he does, by attraction and repulſion, a mere mathematical tendency to approach and recede, be the cauſe what it will, impulſe, preſſure, an unknown one, or no phyſical cauſe at all, but the immediate agency of the Deity. The ſmallneſs alſo of the particles of the medullary ſubſtance may not improbably increaſe their activity, in reſpect of their bulk, agreeably to Sir *Iſaac Newton*'s conjecture concerning the particles of the

æther.

æther. Which may be farther inferred from the nature of theſe attractions and repulſions; for ſince they ſeem to be as ſome reciprocal power of the diſtance, we may judge, that only the neareſt parts of large particles will be eminently active, and that the more remote ones will be an impediment to their actions; whence ſmall particles, having nearly as great active powers, and much leſs matter to be moved, will, upon the whole, be more active in proportion to their bulk, than large ones. If we farther ſuppoſe the particles of the fluids, which circulate through the ultimate veſſels of the medullary ſubſtance, to be ſmaller than the particles which compoſe theſe veſſels, then will they alſo be more active. And thus we ſeem to approach to all that is probable in the received doctrines concerning the nervous fluid, and the animal ſpirits, ſuppoſed to be either the ſame or different things; and all the arguments which *Boerhaave* has brought for his hypotheſis, of a glandular ſecretion of a very ſubtle active fluid in the brain, may be accommodated to the *Newtonian* hypotheſis of vibrations.

Having thus endeavoured to ſettle our notions concerning the æther, and eſtabliſh our evidences for its exiſtence and properties, and for the uniformity, continuity, ſoftneſs, and active powers of the medullary ſubſtance, we come, in the next place, to inquire in what manner theſe may ſerve to explain or evince the vibrations of the medullary particles, aſſerted in the foregoing *propoſition*.

Firſt then, We are to conceive, that when external objects are impreſſed on the ſenſory nerves, they excite vibrations in the æther reſiding in the pores of theſe nerves, by means of the mutual actions interceding between the objects, nerves, and æther. For there ſeem to be mutual actions of all the varieties between theſe three, in all the ſenſes, though of a different nature in different ſenſes. Thus it ſeems, that light affects both the optic nerve and the æther; and alſo, that the affections of the æther are communicated to the optic nerve, and *vice verſâ*. And the ſame may be obſerved of frictions of the ſkin, taſtes, ſmells, and ſounds. The impulſe, attraction, or whatever elſe be the action of the object, affects both the nerves and the æther; theſe affect each other, and even the object or impreſſion itſelf, in moſt or all caſes, ſo as to alter or modify it. And the reſult of theſe actions, upon the whole, may be ſuppoſed ſuch a compreſſion or increaſe of denſity in the æther, as muſt agitate its particles with vibrations analogous to thoſe which are excited in the air by the diſcharge of guns, by thunder-claps, or by any other method of cauſing a ſudden and violent compreſſion in it.

Secondly, We are to conceive, that the vibrations thus excited in the æther will agitate the ſmall particles of the medullary ſubſtance of the ſenſory nerves with ſynchronous vibrations in the ſame manner as the vibrations of the air in ſounds agitate many regular bodies with correſponding vibrations or tremblings. And here the uniformity, ſoftneſs, and active powers of the medullary ſubſtance, muſt be conſidered as previous requiſites and aſſiſtances. A want of uniformity in the medullary ſubſtance, would argue a like want of uniformity in the æther contained within it. The hardneſs of it, if it extended to the particles, would cauſe an ineptitude to vibratory motions in the

particles

particles of theſe particles, *i. e.* in the infiniteſimal particles conſidered in this and the foregoing *propoſition*. And a want of active powers in theſe particles would ſuffer the excited motions to die away prematurely.

One may conjecture, indeed, that the rays of light excite vibrations in the ſmall particles of the optic nerve, by a direct and immediate action. For it ſeems probable, from the alternate fits of eaſy tranſmiſſion and reflection, that the rays of light are themſelves agitated by very ſubtle vibrations, and conſequently that they muſt communicate theſe directly and immediately to the particles of the optic nerves. And it may be alſo, that ſapid and odoriferous particles are agitated with ſpecific vibrations, and that they communicate theſe directly and immediately to the ſmall particles of the guſtatory and olfactory nerves reſpectively, as well as to the interjacent æther. Upon this ſuppoſition, the vibrations of the æther muſt be conceived as regulating and ſupporting the vibrations of the particles, not as exciting them originally.

Thirdly, The vibrations thus excited in the æther, and particles of the ſenſory nerves, will be propagated along the courſe of theſe nerves up to the brain. For the æther reſiding in the medullary ſubſtance, being of an uniform denſity on account of the ſmallneſs of the pores of the medullary ſubſtance, and uniformity of its texture, before taken notice of, will ſuffer the excited vibrations to run freely through it. And the ſame uniformity, together with the continuity, ſoftneſs, and active powers of the medullary ſubſtance, will farther contribute to the free propagation of the vibrations; ſince, on theſe accounts, it follows, that the particles, which were laſt agitated, may eaſily communicate their agitations or vibrations to the ſimilarly poſited and equal contiguous ones, without interruption, and almoſt without any diminution of force. This free propagation of vibrations along the courſe of the nerves may be illuſtrated and confirmed by the like free propagation of ſounds along the ſurface of water, which has ſometimes been obſerved in ſtill calm nights.

Fourthly, The vibrations here deſcribed are confined to the medullary ſubſtance, or at leaſt are only propagated feebly and imperfectly into the neighbouring parts, on account of the heterogeneity and greater hardneſs of the neighbouring parts. The firſt will make the æther of different denſities, and, in ſome caſes, there may be almoſt an interruption or diſcontinuity of it; and the laſt will indiſpoſe the particles to receive and communicate vibrations; and we may ſuppoſe from both together, agreeably to what has been already remarked, that only ſmall vibrations, and ſuch irregular ones as oppoſe each other, will juſt begin to take place in the immediately contiguous parts, and there ceaſe without proceeding farther. It is ſomewhat analogous to this in ſounds, that they are much ſooner loſt in paſſing over rough ſurfaces than ſmooth ones; and particularly, that they receive a much greater diminution from the irregular ſurface of the earth, than from that of ſtill water. However, a particular exception is here to be made in reſpect of the fibres of the muſcles and membranes, into which the vibrations

of

of the æther and medullary particles ſeem to be propagated with great freedom and ſtrength, as will be ſeen hereafter. Which may perhaps be ſome argument, that muſcular fibres are, according to *Boerhaave*'s opinion, mere productions of the ultimate nerves.

Fifthly, As ſoon as the vibrations enter the brain, they begin to be propagated freely every way over the whole medullary ſubſtance; being diminiſhed in ſtrength, in proportion to the quantity of matter agitated, juſt as in ſounds, *i. e.* as it were in a reciprocal duplicate *ratio* of the diſtance from the place where the ſenſory nerve affected by the vibrations enters the brain. Or, if we ſuppoſe the *Pia Mater* to make ſome ſmall diſcontinuity in the medullary ſubſtance by its proceſſes, as has been hinted above, then we muſt alſo ſuppoſe, that the vibrations, which aſcend along any ſenſory nerve, affect the region of the brain which correſponds to this ſenſory nerve more, and the other regions leſs, than according to this proportion.

Sixthly, Since the vibrations, or reciprocal motions, of the ſmall particles of each nerve are made in the ſame line of direction with the nerve, they muſt enter the brain in that direction, and may preſerve ſome ſmall regard to this direction at conſiderable diſtances within the brain; eſpecially if this be favoured by the ſtructure of the nervous fibrils in the brain. Hence the ſame internal parts of the brain may be made to vibrate in different directions, according to the different directions of the nerves by which the vibrations enter.

And thus it appears, that, admitting the exiſtence and ſubtlety of the æther, and the qualities of the medullary ſubſtance here alleged, a probable account may be given, how the vibrations, aſſerted in the laſt propoſition, may be excited in the ſenſory nerves, and propagated thence over the whole medullary ſubſtance, and over that alone. And the ſuitableneſs of this propoſition to the laſt, and of both to a variety of phænomena, which will be ſeen in the courſe of theſe obſervations, may be conſidered as ſome evidence for both.

Let it be remarked alſo, that, if the performance of ſenſation by vibratory motions of the medullary particles be admitted, the exiſtence of a ſubtle elaſtic fluid muſt be admitted in conſequence thereof, as the only means that can be conceived for their riſe and free propagation, ſo as to anſwer to the phænomena of ſenſe, motion and ideas; and reciprocally, if the exiſtence of ſo ſubtle and elaſtic a fluid, as the æther deſcribed by Sir *Iſaac Newton*, can be eſtabliſhed upon independent principles, it may reaſonably be ſuppoſed to penetrate the pores of the medullary ſubſtance, how ſmall ſoever they be, in the ſame manner as air penetrates groſſer cavities and pores, and, like air, both be itſelf agitated by vibrations from a variety of cauſes, and alſo communicate theſe to the medullary particles. We may therefore either deduce the doctrine of vibrations here propoſed from the conſideration of the æther, or the exiſtence of the æther from the doctrine of vibrations, according as either of theſe can be firſt eſtabliſhed.

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There is alſo ſome light and evidence to be caſt upon one or both of theſe propoſitions, from ſeveral natural phænomena; as I will endeavour to ſhew in the following remarks.

1. Heat in natural bodies is probably attended by vibrations of the ſmall parts. This may be inferred from the duration and gradual declenſion of heat, and from the groſs general proportion which is obſerved between this duration and the denſity of the heated body. For a vibratory motion would ſubſiſt for ſome time, decline gradually, and be kept up longer, *cæteris paribus*, where the number of vibrating particles were many, than where few. The ſame hypotheſis is well ſuited to the rarefaction, fluidity, diſſolution, and other changes of texture which heat produces in bodies, according to their various natures. And if we farther conſider, that all bodies, contiguous to each other, come, after a ſhort time, to the ſame degree of heat, viz. that of the circumambient air; thoſe which are hotter loſing ſomething, and thoſe which are colder gaining; and yet that the air is not neceſſary for the conveyance of heat, as appears from Sir *Iſaac Newton*'s experiment of the two thermometers above-mentioned; it will appear highly probable, both that heat in bodies is attended by vibratory motions of the ſmall parts, and alſo that theſe are communicated to contiguous bodies by vibrations of a ſubtle fluid, by an argument ſomething different from that urged above, in ſpeaking of the two thermometers; at leaſt the conſideration of the equality of temperature, to which all contiguous bodies are known, by common obſervations, to arrive, will caſt ſome light upon that argument. And, upon the whole, it will follow, that heat in us is cauſed, or attended, by ſubtle vibrations of the medullary ſubſtance, which is the immediate inſtrument of all the ſenſations; and that a ſubtle fluid is concerned in the production of this effect. And what is thus proved of heat, may be inferred to hold in reſpect of all the other ſenſations, from the argument of analogy.

2. Light is ſo nearly related to heat, that we muſt ſuppoſe the argument of analogy to be particularly ſtrong in reſpect of it: but, beſides this, we have an independent argument for the exiſtence of vibrations here, alſo for their communication by a ſubtle fluid, if we admit Sir *Iſaac Newton*'s hypotheſis concerning the cauſe of the alternate fits of eaſy reflection and tranſmiſſion, as I have above remarked.

3. As ſounds are cauſed by pulſes or vibrations excited in the air by the tremors of the parts of ſounding bodies, they muſt raiſe vibrations in the *membrana tympani*; and the ſmall bones of the ear ſeem peculiarly adapted, by their ſituation and muſcles, to communicate theſe vibrations to the cavities of the *veſtibulum*, ſemicircular canals, and *cochlea*, in which the auditory nerve is expanded; *i. e.* to the nerve itſelf. Now though theſe are groſs vibrations, in reſpect of thoſe which we muſt ſuppoſe to take place in the æther itſelf, yet they prepare the way for the ſuppoſition of the more ſubtle vibrations of the æther, and may be the inſtrument of theſe, in the ſame manner as very groſs reciprocal motions of bodies in the air are obſerved to produce, by percuſſion, thoſe quicker vibrations in which ſound conſiſts.

4. We are, in ſome meaſure, prepared alſo for admitting the doctrine of vibrations in the animal functions, from that diſpoſition to yield a ſound upon percuſſion, which appears in ſome degree in almoſt all bodies; ſince this ſhews, that the diſpoſition to vibrate is general, or even univerſal, in the bigger orders of particles; and therefore makes it more eaſy to conceive, that there may be a like diſpoſition in the leſſer orders, *i. e.* in the infiniteſimal medullary particles, conſidered in this and the foregoing *propoſition.*

5. The mutual attractions and repulſions which ſeem to intercede between all ſmall particles, concur to the ſame purpoſe. For when the attractions and repulſions are changed, by changing the diſtances of the particles, theſe muſt oſcillate to and fro for ſome time, before they can gain their former equilibrium.

6. Elaſticity ſeems to reſult from mutual attractions and repulſions of ſome kind, and is evidently the cauſe of vibrations in muſical ſtrings, and many other bodies. It ſeems alſo, that there is ſcarce any body entirely devoid of elaſticity. And thus elaſticity is connected with the doctrine of vibrations in different ways.

7. The effluvia of electric bodies ſeem to have vibrating motions. For they are excited by friction, patting, and heat; and excite light, ſound, and a pricking ſenſation. They have alſo a repulſive power in reſpect of each other, as the particles of air have; and therefore muſt, like them, be eaſily ſuſceptible of vibrations. Their motions along hempen ſtrings reſemble the motions along the nerves in ſenſation and muſcular contraction; and their attractive powers, at the end of ſuch ſtrings, reſemble the powers of the ſenſations over the muſcles for contracting them. So that electricity is alſo connected in various ways with the doctrine of vibrations.

Laſtly, To ſum up in one what has been remarked in the laſt five paragraphs: as the attractions of gravitation, electricity, magnetiſm, and coheſion, with the repulſions which attend upon the three laſt, intimate to us the general tenor of nature in this reſpect; viz. that many of its phænomena are carried on by attractions and repulſions; and that theſe may be expected to take place in the ſmall deſcending orders of particles, as well as in groſs bodies, and in the biggeſt component particles; ſo the pulſes of the air, the tremors of ſounding bodies, the propagation of ſounds both through the air, and along contiguous ſolid bodies, the oſcillations of elaſtic bodies, and the phænomena of electricity, may, in like manner, ſerve as a clue and guide to the invention, and afford a preſumption, that other reciprocal motions or vibrations have a great ſhare in the production of natural phænomena.

Nor is it an objection to this, but rather a confirmation of it, that theſe principles of attraction and repulſion of the ſeveral kinds, and of vibrations, are dependent upon, and involved within each other, ſince this alſo is agreeable to the tenor of nature, as it is obſerved in the body, in the mind, in ſcience in general, and in the ſeveral branches of each ſcience in particular. Each part, faculty, principle, &c. when conſidered and purſued ſufficiently, ſeems to extend itſelf into the boundaries of the others, and, as it were,

were, to incloſe and comprehend them all. Thus magnetiſm mixes itſelf with the gravitation both of bodies upon the ſurface of the earth, and with that of the moon to the earth: a polar virtue of the ſame kind ſeems to have a principal ſhare in the formation of natural bodies, eſpecially thoſe whoſe parts cohere in regular figures: electricity may alſo extend, without being excited by friction or otherwiſe, to ſmall diſtances, and join with the juſt mentioned polar virtue, in making the parts of bodies cohere, and, in ſome caſes, in regular figures. The effervescence which attends the mixture of acids and alkalis, and the ſolution of certain bodies in menſtruums, fermentation, and putrefaction, are all general principles of very extenſive influence, nearly related to each other, and to the fore-mentioned mutual attractions and repulſions, and are poſſeſſed of the ſame unlimited power of propagating themſelves, which belongs to the ſeveral ſpecieſes of plants and animals. A repulſion which ſhould throw off indefinitely ſmall corpuſcles with indefinitely great velocity from all the bodies of the univerſe (a thing that would be very analogous to the emiſſion of light, odoriferous particles, and magnetical and electrical effluvia, and to the generation of air and vapour), might cauſe the gravitation of all the great bodies of the univerſe to each other, and perhaps other kinds of attraction. Some of theſe corpuſcles, by ſtopping each other in the intermundane ſpaces, or other mutually repulſive corpuſcles lodged there from cauſes not yet diſcovered, may compoſe a ſubtle vibrating medium. The vibrations of this medium, being continued to the great bodies of the univerſe, may ſo far agitate their ſmall parts, as to give their attractive and repulſive powers an opportunity to exert themſelves with great vigour; and the emiſſion of the above-mentioned corpuſcles may be, in part, occaſioned by the attractions and conſequent colliſions of ſmall parts thus agitated; ſo that elaſtic corpuſcles may be thrown off from theſe ſmall parts with indefinitely great velocity. And it would be no objection to theſe or ſuch like ſuppoſitions, that we could not explain, in any definite manner, how theſe things are effected, nor put any limits to the ſizes of decreaſing corpuſcles, or their active powers in reſpect of each other. Nor would this be to reaſon in a circle, more than when we argue, that the heart and brain, or the body and the mind, depend upon each other for their functions; which are undeniable truths, however unable we may be to give a full and ultimate explanation of them. However, it is not impoſſible, on the other hand, but future ages may analyſe all the actions of bodies upon each other, up to a few ſimple principles, by making ſuch ſuppoſitions as the phænomena ſhall ſuggeſt, and then trying and modelling them by the phænomena. At leaſt this is what one is led to hope, from the many ſimple and eaſy ſolutions of very complex problems, which have been produced within the two laſt centuries.

We may draw the following corollaries from the hypotheſis of vibrations, as laid down in the two foregoing *propoſitions*.

Corollary 1. The vibrations of the medullary particles may be affected with four ſorts of differences; viz. thoſe of degree, kind, place, and line of direction. Vibra-

tions differ in degree, according as they are more or leſs vigorous; *i. e.* as the particles oſcillate to and fro, through a longer or ſhorter very ſhort ſpace; *i. e.* as the impreſſion of the object is ſtronger or weaker, and thus affects the medullary particles more or leſs vigorouſly, either directly and immediately, or mediately, by generating a greater or leſs degree of condenſation in the pulſes of the æther. Vibrations differ in kind, according as they are more or leſs frequent, *i. e.* more or leſs numerous, in the ſame ſpace of time. They differ in place, according as they affect this or that region of the medullary ſubſtance of the brain primarily. And they differ in the line of direction, according as they enter by different external nerves.

Cor. 2. The magnitude of each ſenſation is chiefly to be eſtimated from the vibrations which take place in the medullary ſubſtance of the brain, thoſe which are excited in the ſpinal marrow and nerves being, for the moſt part, ſo inconſiderable, in reſpect of the juſt mentioned ones, that they may be neglected.

Cor. 3. The brain may therefore, in a common way of ſpeaking, be reckoned the ſeat of the ſenſitive ſoul, or the ſenſorium, in men, and all thoſe animals where the medullary ſubſtance of the nerves and ſpinal marrow is much leſs than that of the brain; and this even upon the ſuppoſition laid down in the firſt propoſition, viz. that the whole medullary ſubſtance of the brain, ſpinal marrow, and nerves, is the immediate inſtrument of ſenſation, and equally related to the ſenſitive ſoul, or principle. But if there be any reaſon to ſuppoſe, that the firſt propoſition is not ſtrictly true, but that the ſpinal marrow and nerves are only inſtruments ſubſervient to the brain, juſt as the organs of the hand, eye, ear, &c. are to them, and the brain itſelf to the ſoul, we may conclude abſolutely, that the ſenſorium of ſuch animals is to be placed in the brain, or even in the innermoſt regions of it. Now there are ſome phænomena which favour this, by ſhewing, that whatever motions be excited in the nerves, no ſenſation can ariſe, unleſs this motion penetrate to, and prevail in, the brain. Thus, when a nerve is compreſſed, we loſe the ſenſe of feeling in the part to which it leads: a perſon much intent upon his own thoughts does not hear the ſound of a clock; *i. e.* the vibrations excited by this ſound in the auditory nerve cannot penetrate to, and prevail in, the brain, on account of thoſe which already occupy it: and a perſon who has loſt a limb often feels a pain, which ſeems to proceed from the amputated limb; probably becauſe the region of the brain correſponding to that limb, is ſtill affected.

If it be certain, that ſome of the medullary parts have been diſcharged, in abſceſſes of the brain, one would incline to think, that the external parts of the *medulla* are inſtrumental, in reſpect of the internal. And, on the other hand, one may queſtion, whether, in animals of the ſerpentine form, and thoſe whoſe brains are comparatively ſmall, and in all thoſe of the polypous kind, the ſenſorium be not equally diffuſed over the whole medullary ſubſtance, or even over all the living parts. I only hint theſe things, not preſuming even to conjecture, but only to excite thoſe who have proper opportunities, to inquire carefully into theſe matters.

Cor. 4.

Cor. 4. If we allow the exiſtence of the æther, and its uſe, in performing ſenſation, thought, and motion, as it may be inferred from the two foregoing propoſitions, compared with ſuch other things as follow in theſe obſervations, in favour of the doctrine of vibrations; we may conclude, that the æther muſt have a conſiderable ſhare in the production of many other natural phænomena; and therefore ſhall have a ſufficient foundation for trying how far it will carry us, agreeably to the facts. I would recommend this, in a particular manner, to thoſe perſons who are much converſant with electrical phænomena; eſpecially as Sir *Iſaac Newton* himſelf, whoſe great caution and reſervedneſs, in difficult and doubtful matters, are ſufficiently known, has made no ſcruple to affirm, that the powers of electrical bodies are owing to the action of the æther. *See the laſt paragraph of the* Principia.

Scholium. It may be proper to remark here, that I do not, by thus aſcribing the performance of ſenſation to vibrations excited in the medullary ſubſtance, in the leaſt preſume to aſſert, or intimate, that matter can be endued with the power of ſenſation. It is common to all ſyſtems, to ſuppoſe ſome motions attendant upon ſenſation, ſince corporeal objects muſt, by their actions, impreſs ſome motion upon our bodies, and particularly upon that part which is moſt nearly related to the ſentient principle; *i. e.* upon the medullary ſubſtance, according to the firſt and ſecond propoſitions. I lay down theſe propoſitions, therefore, as eſtabliſhed by the common conſent of phyſicians and philoſophers; and upon that foundation proceed to inquire into, and determine, ſome matters of a more difficult nature; ſuch as the complex problems concerning ſenſations, ideas, and motions, and their mutual influences and relations.

The following inſtance may illuſtrate this: the quantity of matter in bodies is always found to be proportional to their gravity: we may therefore either make the quantity of matter the exponent of the gravity, or the gravity the exponent of it, according as either can be beſt aſcertained; notwithſtanding that we are entirely at a loſs to determine, in what mechanical way each atom contributes to the gravity of the whole maſs; and even though we ſhould, with ſome, ſuppoſe this effect to be immechanical, and to ariſe from the immediate agency of God. And, by parity of reaſon, if that ſpecies of motion which we term vibrations, can be ſhewn by probable arguments, to attend upon all ſenſations, ideas, and motions, and to be proportional to them, then we are at liberty either to make vibrations the exponent of ſenſations, ideas, and motions, or theſe the exponents of vibrations, as beſt ſuits the inquiry; however impoſſible it may be to diſcover in what way vibrations cauſe, or are connected with ſenſations, or ideas; *i. e.* though vibrations be of a corporeal, ſenſations and ideas of a mental nature.

If we ſuppoſe an infiniteſimal elementary body to be intermediate between the ſoul and groſs body, which appears to be no improbable ſuppoſition, then the changes in our ſenſations, ideas, and motions, may correſpond to the changes made in the medullary ſubſtance, only as far as theſe correſpond to the changes made in the elementary

tary body. And if theſe laſt changes have ſome other ſource beſides the vibrations in the medullary ſubſtance, ſome peculiar original properties, for inſtance, of the elementary body, then vibrations will not be adequate exponents of ſenſations, ideas, and motions. Other ſuppoſitions to the ſame purpoſe might be made; and, upon the whole, I conjecture, that though the firſt and ſecond propoſitions are true, in a very uſeful practical ſenſe, yet they are not ſo in an ultimate and preciſe one.

PROP. VI.

The Phænomena of ſenſible Pleaſure and Pain appear to be very ſuitable to the Doctrine of Vibrations.

The moſt vigorous of our ſenſations are termed ſenſible pleaſures and pains, as noted above, in the introduction. And the vivid nature of theſe engages us to be very attentive to their ſeveral properties, relations, and oppoſitions. It is requiſite therefore, in our inquiry into the doctrine of vibrations, to examine, how far the phænomena of the ſenſible pleaſure and pain can be deduced from, or explained by it.

Firſt then, The doctrine of vibrations ſeems to require, that each pain ſhould differ from the correſponding and oppoſite pleaſure, not in kind, but in degree only; *i. e.* that pain ſhould be nothing more than pleaſure itſelf, carried beyond a due limit. For of the four differences of vibrations mentioned in the firſt corollary of the foregoing propoſition, three are given, viz. thoſe of kind, place, and line of direction, in the pleaſures and pains which correſpond, as oppoſites to each other: there is therefore nothing left, from whence the difference of ſuch pleaſures and pains can ariſe, except the difference of degree. But the phænomena appear to be ſufficiently ſuitable to this reaſoning, inaſmuch as all pleaſure appears to paſs into pain, by increaſing its cauſe, impreſſion, duration, ſenſibility of the organ upon which it is impreſſed, &c. Thus an agreeable warmth may be made to paſs into a troubleſome, or burning heat, by increaſe, or continuance; and the ſame thing holds, in reſpect of friction, light, and ſounds. And as medicinal bodies appear, from obſervations both philoſophical and vulgar, to be endued with more active properties than common aliments; *i. e.* to be fitted for exciting ſtronger vibrations; ſo that taſtes and ſmells are, for the moſt part, ungrateful; whereas thoſe of common aliments are pleaſant. It may be obſerved alſo, that ſome painful ſenſations, as they decreaſe by time, or the removal of the cauſe, paſs into poſitive local pleaſures, of the ſame ſpecies as the preceding pain; thus ſhewing the near alliance between pleaſure and pain; and that a mere difference in degree puts on the appearance of one in kind, at a certain point. I ſuppoſe it may be referred to this head, that ſome bitter and acrimonious taſtes leave an agreeable reliſh of the ſweet kind upon the tongue, after ſome time.

Secondly,

Secondly, It agrees well with the doctrine of vibrations, that all evident ſolutions of continuity in the living parts occaſion pain, inaſmuch as a ſolution of continuity cannot happen without a violent impreſſion of ſome ſenſible object, nor, by conſequence, without violent mutual actions between the object, nerves, and æther. The ſolution of continuity does therefore preſuppoſe that degree of violence in the vibrations, which exceeds the limit of pleaſure, and is proper to pain, according to the foregoing paragraph.

Thirdly, We may, in like manner, give a reaſon, from the doctrine of vibrations, both why a moderate degree of diſtention in the parts is neceſſary to their growth, and pleaſurable ſtate; and alſo why all great diſtentions are attended with pain for a conſiderable time, before they are raiſed to ſuch a pitch as to cauſe a viſible ſolution of continuity. For a great diſtention is equivalent to a vigorous impreſſion of a ſenſible object, being often cauſed by ſuch; and as the ſituation of the ſmall particles is changed in great diſtentions, their mutual actions will be changed alſo, and ſo may give riſe to more vigorous vibrations; and theſe increaſed vibrations may either fall within the limits of pleaſure, or go beyond them, according to their degree. We are alſo to conſider, that, in all conſiderable diſtentions there is an increaſe of friction between the veſſels and circulating fluids, and conſequently of heat, *i. e.* of vibrations.

But beſides this, it ſeems not improbable, that in preternatural and painful diſtentions, the ſmall particles are perpetually ſeparating themſelves from their former coheſions, and running into new ones; ſo that a minute and inviſible ſolution of continuity is carried on during the whole diſtention, till ſuch time as this degree of diſtention becomes familiar to the parts, and the ſituation and mutual actions of the ſmall particles be accommodated to it. Thus the cauſe of the pain in diſtentions will ariſe from the ſolution of continuity, and may be referred to the foregoing head. And converſely it appears, that in manifeſt ſolutions of continuity, occaſioned by wounds, burns, &c. there always ariſes in the neighbouring parts, which are inflamed, a preternatural diſtention of the ſmall fibres and veſſels; by which means the pain is renewed and continued. Every manifeſt ſolution of continuity does therefore, according to the explanation of diſtention juſt laid down, include within itſelf an infinite number of minute inviſible ſolutions.

Hence we may aſk, whether this minute inviſible ſolution of continuity in the infiniteſimal medullary particles of the brain, is not that common limit, and middle point, which ſeparates pleaſure from pain, and of which the viſible ſolutions of continuity, which are cauſed by external injuries, are a type, and alſo a means, viz. by propagating violent vibrations up to the brain. It is ſome preſumption in favour of this poſition, that all conjectures concerning inviſible things ought to be taken from viſible ones of the ſame kind; alſo that it is particularly ſuitable to the doctrine of vibrations; inaſmuch as, laying down this doctrine, one may eaſily conceive how moderate and pleaſant impreſſions may agitate the medullary particles in ſo moderate a degree, as that they ſhall again return to their former ſituations and connections, when the agitation is over;

whereas

whereas violent and painful ones may force the particles from thence, and give rise to new ones; *i. e.* to the solution of continuity. And as the body is so formed, that great and visible solutions of continuity may be healed again, and the parts restored, in great measure, to their primitive integrity and perfection, by the power of nature, unless where there is a loss of substance (and yet even here the same end is obtained in part); so we may suppose, that the power of nature restores all minute solutions of continuity in the constituent, infinitesimal particles, almost instantaneously, and so that the body receives no perceptible detriment from single instances, though it probably does from frequent repetitions; agreeably to which, it is generally supposed, that pain, by often returning, impairs the faculties, both bodily and mental.

Fourthly, The bones, nails, hair, and cuticle, may consistently with the doctrine of vibrations, have a solution of continuity produced in their parts, without pain ensuing; for they are hard, and therefore incapable, as it seems, of receiving and communicating to the contiguous nerves, and thence to the brain, vibrations of any considerable degree of strength. We are also to suppose, that in palsies, mortifications, &c. changes of texture of somewhat a like kind are produced, so as to render the parts affected thereby incapable of conveying sensation to the medullary substance of the brain. Old age, inactivity, inflammation, pain, &c. are in like manner to be considered, as inducing such a degree of condensation, fixation, and callosity, in the medullary substance itself, as must end at last in insensibility and death.

Fifthly, It is not unsuitable to the doctrine of vibrations, that the frequent repetition of the same external impressions should have the power of converting original pains into pleasures, and pleasures into mere sensations, *i. e.* into evanescent pleasures; as we find it has in fact. For this may be effected by such a change in the organ and brain, as that the organ shall send weaker and weaker vibrations perpetually to the brain, upon every successive renewal of the same impression, and the brain become perpetually less and less disposed to receive strong vibrations, though the power of communication from the impressions should continue the same. It remains therefore to be inquired, what general tendencies in the small medullary particles, might dispose them to undergo such changes. And it appears to me, that a change of the spheres of attraction and repulsion in these particles, upon every change in their situations, so as always to lean towards the situation last superinduced, might be sufficient for this purpose. However, this is a mere supposition, and that of a very recluse nature. Only let it be observed, that the fact to be here accounted for, viz. the decrease in the efficacy of impressions frequently repeated, is both an evident one, and also must have its rise from some powers in the small parts of matter over each other. It must therefore admit of an explanation, either from the doctrine of vibrations, or from some other law of matter and motion. And if the doctrine of vibrations be found suitable to other phænomena, it may be presumed not to be unsuitable to this, till such time as some manifest inconsistency between them shall appear.

It

It ought to be remarked here, that this tranſit of original pains into pleaſures, and of vivid pleaſures into faint ones, by frequent repetition, bears ſome relation to the above-mentioned tranſition of pains into poſitive local pleaſures, of the ſame kind with themſelves.

To this head of conſideration may be referred Dr. *Jurin*'s obſervation, viz. " That " when we have been for ſome time affected with one ſenſation, as ſoon as we ceaſe to " be ſo affected, a contrary ſenſation is apt to ariſe in us, ſometimes of itſelf, and ſome- " times from ſuch cauſes, as at another time would not produce that ſenſation at all, or, at " leaſt, not to the ſame degree." For the continued impreſſion of the ſame object will ſo fix upon the ſenſory nerve, and region of the brain correſponding thereto, a tendency to one peculiar ſort of vibrations, that an impreſſion of an oppoſite, or very different ſort, muſt do more than uſual violence to the brain, *i. e.* will excite a glaring ſenſation of an oppoſite nature. *See the Inſtances mentioned by Dr.* Jurin, *in his Eſſay on diſtinct and indiſtinct Viſion.*

Sixthly, We may account for the different kinds and degrees of pleaſure and pain, from the four differences of vibrations mentioned above, viz. thoſe of degree, kind, place, and line of direction, and their various combinations with each other. For it is obvious to conceive, that theſe combinations may be ſufficiently numerous and diſtinct from each other, to anſwer to the facts. If the vibrations go beyond the common limit of pleaſure and pain in one part of the brain, at the ſame time that they fall ſhort of it in others, the reſult will be a pleaſure or pain, according as this or that ſort of vibrations prevails; and if they be nearly equal, it will be difficult to determine of which kind it is. If the vibrations fall a little ſhort in all the parts, they will generate a high degree of pleaſure; which, however, muſt be leſs than the leaſt general pain, *i. e.* ſuch a one wherein the vibrations go beyond the limits in all the parts: but it may be far greater than partial pains, or than thoſe which affect only one particular region of the brain. Hence we may ſee, that the pains are in general greater than the pleaſures; but then they are more rare for the ſame reaſon, being ſuch violent ſtates as cannot ariſe from common impreſſions. Or, if we ſuppoſe the pains to be frequent, they will then ſo far alter the diſpoſition of the medullary ſubſtance, according to what was ſaid above, as that many original pains will be converted into pleaſures: which indeed ſeems to be the caſe not unfrequently; for the organs of the new-born infant are ſo delicate, as to receive pain from many of thoſe impreſſions which afterwards yield pleaſure. But then, his ſources of pleaſure ſeem to be multiplied more than in proportion to what he ſuffers by this previous paſſage through pain.

In certain caſes of exceſſive pains, the violent vibrations appear at laſt to excite a latent attractive power in the medullary particles, in the manner hereafter to be deſcribed, in reſpect of the fibres of the muſcles and membranes, which puts a ſtop to thoſe very vibrations that excited it. Hence faintings and ſtupors, *i. e.* the ceſſation of pain from violent pains. However, a greater degree of vibrations is probably required

for exciting this attractive power in the medullary particles than in white fibres, and in white fibres than in red ones, as will appear hereafter.

It follows alſo, from the principles here laid down, that all the pleaſures, though particularly different from each other, ought to have a general reſemblance, in their circumſtances and conſequences; and the pains likewiſe.

Seventhly, All the mere ſenſations, which enter the mind by the five external ſenſes, admit of a general analyſis, upon the ſame principles as the pleaſures and pains do. For all the mere ſenſations were, in their original ſtate, either pleaſures or pains, and vary now from their original ſtate only by the diminution of the degree. Let therefore all the differences of kind, place, and line of direction, be combined in all their varieties, the degree being ſuppoſed every where evaneſcent; and we ſhall have all the particular vibrations from whence each mere ſenſation ariſes. This is the general account. But it is a moſt difficult problem to explain, by what differences of kind the particular ſenſations, either of the ſame, or of different ſenſes, are diſtinguiſhed from each other.

It ſeems probable to me, that the limits of the ſeven primary colours, viz. the extreme red, the limit of the red and orange, of the orange and yellow, yellow and green, green and blue, blue and indigo, indigo and violet, and the extreme violet, excite vibrations in the optic nerve, whoſe times are proportional to the times of vibration of a ſtring which ſounds the notes in order, according to the key mentioned by Sir *Iſaac Newton* in his *Optics*, *i. e.* the notes D, E, F, G, A, B, C, D. This hypotheſis affords at leaſt a probable reaſon for the ſeveral very particular breadths of the primary colours, in the priſmatic oblong image of the ſun, as I ſhall endeavour to ſhew in its place, *Prop.* 56.

If the frequency of the vibrations excited by the ſeveral ſapid and odorous bodies in the nerves of the tongue and membrana ſchneideriana, could be diſcovered, it is not improbable but this would be a clue to lead us into the inner conſtitution of natural bodies, ſince one may reaſonably ſuppoſe, that each ſapid and odorous body excites vibrations of the ſame frequency as thoſe which take place in it before it is taſted or ſmelt to.

The ſolution of the ſame problem, in the ſeveral ſenſes, might alſo a little unfold to us the different internal ſtructure of the ſeveral nerves, and of the parts of the brain that correſpond thereto. For it ſeems probable to me, that each nerve and region is originally fitted to receive, and, as one may ſay, ſympathize with, ſuch vibrations as are likely to be impreſſed upon them in the various incidents of life; and not that the auditory nerve could perform the office of the optic, if put into its place, or *vice verſâ*, &c. according to *Raw*.

Eighthly, It is obſerved by medical writers, that pain is apt to excite a contraction in the fibres of the neighbouring membranes. Now this is very agreeable to that power which ſenſory vibrations have, in general, over the red fleſhy muſcles, for contracting them, in the manner to be deſcribed hereafter. For ſince vibrations of a mid-

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dle ſtrength, by deſcending into the red fibres of the muſcles, are ſufficient to contract them in the ordinary functions and actions of life, it is not unreaſonable to expect, that the ſtronger vibrations, which attend pain, ſhould be ſufficient to contract the pale fibres of membranes, though theſe be in themſelves of a leſs contractile diſpoſition.

It is agreeable to this, that titillation and itching, which lie, as it were, upon the confines of pleaſure and pain, are more apt to diffuſe themſelves over the neighbouring parts than pain. For titillation and itching only agitate the ſmall particles of the membranes, and therefore run along their ſurfaces, by the ſucceſſive communication of theſe agitations; whereas pain, by contracting the fibres, puts a ſtop to theſe agitations, and conſequently to its own diffuſion over the neighbouring parts.

Ninthly, Extreme and pointed parts, ſuch as the extremity of the noſe, the uvula, the epiglottis, the nipples, and the ends of the fingers, are in general more ſubject to irritation, itching, and inflammation, and endued with a greater degree of ſenſibility than the other parts. Now this phænomenon agrees with the doctrine of vibrations, inaſmuch as ſuch parts muſt, according to the *Newtonian* hypotheſis, be ſurrounded with an æther of a greater denſity than that within their pores, and which alſo grows denſer and denſer, in a regular manner. For one may conceive, that the vibrations communicated to this denſer æther, will be ſtronger in proportion to its denſity; and conſequently, that they will agitate the ſmall particles of the extreme parts alſo with vibrations ſtronger than ordinary.

It is true, indeed, that the ſenſibility of each part does depend, in great meaſure, on the number, ſtructure, and diſpoſition of the nervous papillæ, which are the immediate organ in the ſenſes of feeling, taſte, and ſmell; but then we may remark, that the ſame obſervation holds in reſpect of theſe nervous papillæ. For they are alſo extreme and pointed parts, and that eſpecially, if we ſuppoſe, which ſeems probable, that when any part is in a ſtate of exquiſite ſenſibility, the nervous papillæ are erected (in ſome ſuch manner as the hairs of the neck and back in certain animals, when enraged), ſo as to recede from each other, and conſequently, to admit the denſer æther between them. They may alſo, upon the ſame occaſions, be made turgid, by the conſtriction of their baſes, and thus have their ſenſibility, or power of receiving vibrations, increaſed by diſtention.

We may remark likewiſe, in purſuing this method of reaſoning, that the æther which lies contiguous to the medullary ſubſtance in the ventricles of the brain, is denſer than that which lies in the medullary ſubſtance itſelf. May we not therefore conjecture, that one uſe of the cavities of the ventricles is to increaſe and keep up all the vibrations propagated from the external nerves into the medullary ſubſtance of the brain, by means of the denſer æther lodged in thoſe cavities; that blood and ſerum extravaſated, and lying in the ventricles, ſuffocate ſenſations, by excluding this denſer æther, as well as by preſſing on the medullary ſubſtance; and, laſtly, that thoſe brutes whoſe olfactory nerves have cavities within them continued from the ventricles, are more acute

than men, in perceiving odours, and diſtinguiſhing them from each other, in part, upon this account?

Boerhaave is, indeed, of opinion, that the oppoſite ſides of the ventricle always touch each other, ſo as to leave no cavity. But it ſeems more reaſonable to ſuppoſe, that a ſubtle vapour, which is exhaled from the veſſels of the inveſting membrane, and whoſe particles, like the vapour of water, have a repulſive power, in reſpect of each other, prevents the abſolute mutual contact of the oppoſite ſides, in common caſes. And the ſame thing is favoured by the experiments tried upon the *Pariſian* beggar. Since the brain in him could be ſomewhat preſſed in, it ſeems that the ſkull was not entirely full before.

PROP. VII.

The Phænomena of Sleep appear to be very ſuitable to the Doctrine of Vibrations.

Here I obſerve, firſt, that new-born children ſleep almoſt always. Now this may be accounted for by the doctrine of vibrations, in the following manner: the fœtus ſleeps always, having no ſenſation from without impreſſed upon it, and only becomes awake upon its entrance into a new world, viz. by means of the vigorous vibrations which are impreſſed upon it. It is reaſonable therefore to expect, that the new-born child ſhould fall back into its natural ſtate of ſleep, as ſoon as theſe vibrations ceaſe, and return again to a ſtate of vigilance, only from the renewal of vigorous impreſſions; and ſo on alternately, agreeably to the fact.

Secondly, Even adults are diſpoſed to ſleep, when the impreſſions of external objects are excluded, and their bodies kept in a ſtate of reſt, for the ſame reaſons as thoſe juſt mentioned in the ſimilar ſtate of young children. However, they incline more to vigilance than children, partly becauſe their ſolids and fluids are more active, and leſs compreſſible, *i. e.* more ſuſceptible and retentive of vibrations; and partly, becauſe aſſociation brings in perpetual trains of ideas, and conſequently of vibrations, ſufficiently vivid to keep up vigilance in common caſes.

Thirdly, Having preſented the reader with the two foregoing obſervations, which are of a very obvious kind, I will now inquire with more minuteneſs, into the intimate and preciſe nature of ſleep. It appears then, that, during ſleep, the blood is accumulated in the veins, and particularly in the venal ſinuſes which ſurround the brain and ſpinal marrow; and alſo, that it is rarefied, at leaſt for the moſt part. For as the actions of the muſcles ſqueeze the blood out of the veins during vigilance, ſo their inactivity during ſleep ſuffers the blood to lodge in the veins; and the decumbent poſture, which is common to animals in ſleep, ſuffers it to lodge particularly in the venal ſinuſes of the brain and ſpinal marrow. And it is agreeable to this, that, in moſt diſſections, the blood is found chiefly in veins, and, in diſſections after lethargies, apoplexies, &c. the venal ſinuſes of the brain, and conſequently thoſe of the ſpinal marrow,

marrow, which communicate freely with them, are particularly full. As to the rarefaction of the blood, it follows from the warmth of the body, which is an uſual attendant upon ſleep, and is cauſed by the reſt of the body, the warmth of the place where the perſon ſleeps, the coverings, and the fermentative diſpoſition of the freſh chyle, which then enters the blood. It follows therefore, that the brain and ſpinal marrow will be particularly compreſſed during ſleep, ſince the blood then takes up more ſpace, is particularly accumulated within the cavities of the ſkull and vertebræ, and the hardneſs of theſe bones will not ſuffer them to yield or make more room. It follows alſo, that the ſoftneſs of the medullary ſubſtance will ſubject it to the effects of this compreſſion, more than the cortical; ſo that, if we ſuppoſe its functions to conſiſt in receiving, retaining, and communicating vibrations, it will be rendered peculiarly unfit for theſe functions, from the compreſſion here mentioned, *i. e.* the animal will be indiſpoſed to ſenſation and motion, agreeably to obſervation.

There are many other arguments which might be brought to ſhew, that during ſleep, and ſleepy diſtempers, the brain is particularly compreſſed, if it were neceſſary. But the inſtance of the *Pariſian* beggar, above noted, is moſt to this purpoſe. This perſon had a perforation in his ſkull, which did not oſſify; whence, by external preſſure upon that part, the internal regions of the brain might be affected; and it was conſtantly obſerved, that, as the preſſure increaſed, he grew more and more ſleepy, and at laſt fell into a temporary apoplexy.

In young children, there ſeems to be a conſtant moderate preſſure of the ſkull upon the brain. For the brain is of a great relative magnitude in them, and, by its endeavour to expand itſelf, it keeps the ſutures from uniting too firmly, till ſuch time as it is arrived at its full growth. It muſt therefore be compreſſed in return, by the re-action of the ſkull. And this may be conſidered as a circumſtance, which concurs to render young children more apt to ſleep than adults. When old perſons are ſleepy, it is a morbid affection, and may ariſe either from an hydropical diſpoſition, whereby the turgeſcence of the neighbouring parts compreſſes the medullary ſubſtance; or from a defect of nutrition in this ſubſtance, which renders it ſoft and compreſſible in a preternatural degree. If the venal ſinuſes, and other blood veſſels, of the brain, be, by any accident preternaturally diſtended, and continue ſo for a conſiderable time, they will ſcarce ever recover their priſtine tone and dimenſions; and this ſo much the more, as the perſon approaches to old age.

For the ſame reaſon, as the medullary ſubſtance within the ſkull and vertebræ is compreſſed during ſleep, that of the ganglions, plexuſes, and trunks of the nerves in other parts of the body, will be compreſſed alſo, though in a leſs degree. For this ſubſtance has no blood or groſs fluids within it, and is far the ſofteſt of all the parts of the body; and the membranes, which inveſt all the parts of the body, perform the ſame office to them, in a leſs degree, as the ſkull does to the brain, *i. e.* check their diſtention. The ſurrounding membranes muſt therefore compreſs the ſoft medullary ſubſtance in

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the ganglions, plexuſes, and trunks of the nerves, during ſleep, on account of the rarefaction of the humours at that time; whence, according to the doctrine of vibrations, ſenſory ones can neither aſcend freely from the external organs to the brain, nor motory ones deſcend into the limbs, *i. e.* the animal will be inſenſible and inactive, as it is found to be in fact.

Is it not probable, that, as ſleep comes on, the oppoſite ſides of the ventricles of the brain approach towards each other, on account of the compreſſion here aſſerted; alſo, that they become contiguous at the inſtant of ſleep, excluding the denſer æther, mentioned in the foregoing propoſition, thereby? By this means, the power of ſenſation would receive a remarkable diminution at the inſtant of falling aſleep, as it ſeems to do. There might alſo, in certain circumſtances, ariſe a very vivid exertion of the perceptive and motive faculties at that inſtant, from the compreſſion of the æther previous to its rarefaction, ſuch as would account for the ſudden terrors and ſtartings which happen at the inſtant of going to ſleep, in ſome morbid caſes.

Fourthly, It is obſerved, that vigilance continued, fatigue, and pain, all diſpoſe ſtrongly to ſleep. For all vigorous or long-continued vibrations muſt both generate heat, whereby the blood and juices will be rarefied, ſo as to compreſs the medullary ſubſtance, and alſo exhauſt this ſubſtance of its fluid and active particles, ſo as to render it more eaſily compreſſible, and leſs ſuſceptible and retentive of vibrations. Great degrees of heat ſeem to produce an extraordinary propenſity to ſleep, in nearly the ſame way.

And when perſons expoſed to extreme cold are overcome by a pleaſing, but fatal ſleep, it ſeems as if the internal parts were affected with a preternatural warmth, from the vigorous ſenſations and concomitant vibrations impreſſed on the external parts by the cold, and thence aſcending to the brain. It agrees with the hypotheſis here propoſed, that theſe uneaſy ſenſations decline by degrees, till they fall within the limits of pleaſure, and, at laſt, end in inſenſibility. This ſleep may prove fatal, from the great difference between the internal and external parts, in reſpect of heat; alſo from the cold's penetrating farther and farther. Muſcular motion may prevent it, and its ill effects, partly as the veins are emptied by this, partly as it warms the external parts, and cools the internal, from the return of the cool blood into the courſe of the circulation. If we ſuppoſe the circulation to ceaſe entirely, at the ſurface of the body from the cold, then will warm blood circulate through the internal parts alone; and theſe parts will continue to be defended from the cold by the external ones, for a time. And thus the body will approach to the common ſtate of a perſon going to ſleep.

It is eaſy to ſee, from the method of reaſoning here uſed, how perſons recovering from long illneſſes ſhould be much diſpoſed to ſleep, viz. from the exhauſtion of the medullary ſubſtance, their almoſt conſtant reſt, their being kept warm, and the frequent taking ſuſtenance, ſo as to beget great quantities of freſh chyle, and conſequently, an extraordinary degree of a fermentative heat.

Fifthly,

Fifthly, The manner in which opiates produce ſleep may be thus explained, agreeably to the doctrine of vibrations. Opiates evidently excite grateful ſenſations in the ſtomach and bowels. This appears from the ſhort time in which liquid opiates take effect; and even from immediate and direct ſenſations: a perſon may even feel, that the ſtomach is the ſeat of the pleaſurable impreſſions made by opiates. We are to ſuppoſe therefore, that vivid vibrations, which, however, lie within the limits of pleaſure, aſcend perpetually from the ſtomach and bowels along the par vagum, and intercoſtal nerves, up to the brain and ſpinal marrow, diffuſe themſelves over theſe, and from thence deſcend along the nerves into all the parts of the body. Hence it follows, that they will obſcure and overpower all moderate ſenſations, or vibrations, which ſubſiſted before, or which external objects may from time to time endeavour to excite, and introduce a general pleaſurable ſtate over the whole nervous ſyſtem; with trains of pleaſurable ideas, in the manner to be explained hereafter, when we come to treat of ideas, their generations, aſſociations, and dependencies on bodily ſtates. During this pleaſurable ſtate, the body will of courſe be compoſed to reſt; reſtleſſneſs, toſſings, and changes of poſture, being cauſed, for the moſt part, by uneaſy ſenſations. Hence the blood will be accumulated in the veins and venal ſinuſes, and grow warm both from the vigorous vibrations excited by the opiate, and from the abſolute reſt of the body. For abſolute reſt conduces, in a peculiar manner, to make the body grow warm, by the heat reflected from the contiguous coverings; as, on the contrary, the ſlighteſt motions frequently returning, ventilate and cool the parts. And thus the compreſſion of the medullary ſubſtance requiſite for ſleep, will be induced by the action of the opiate upon the ſtomach and bowels.

But, beſides this, we may conceive, that the opiate particles excite vibrations of the ſame kind in all the parts of the body, after they are taken into the blood, and circulate with it, till ſuch time as, by a perfect aſſimilation, they loſe all their peculiar qualities.

It ſeems alſo, that the continued deſcent of vibrations, from the brain, and ſpinal marrow, into the limbs, and external parts, agitate them ſo much, as to render them unfit for receiving ſenſation and motion, in the ſame manner as continued friction of the head, when newly ſhaved, or ſhaking the hand, occaſion a kind of numbneſs in the head and hand reſpectively. For a diſorder raiſed in the motory nerves, and muſcular fibres, analogous to numbneſs in the ſenſory nerves, and ſentient papillæ, muſt produce ineptitude to motion. It ſeems therefore, that the inſenſibility and immobility which proceed from opiates, and which concur in haſtening the ſleep, and increaſing its degree, ariſe in great part from this cauſe. The numbneſs, and paralytic weakneſſes, which frequently ſucceed after opiates, are evidences for what is here alleged.

Opium ſeems to have an intermediate degree of activity between narcotics, or ſtupefying poiſons, on one hand, and grateful aliments, particularly vinous liquors, on the other.

other. Narcotics operate ſo violently on the ſtomach and bowels, the brain, and the external parts, as to bring confuſion on the ſenſations, and trains of ideas, and convulſions on the muſcular ſyſtem. And that theſe effects are produced by a local influence on the ſtomach, in the manner propoſed concerning opiates, appears, becauſe they ceaſe, or abate much, ſoon after the narcotic is ejected by vomiting; alſo becauſe whipping a dog, after he has taken the nux vomica, contributes to obviate its ill effects. Wines, and grateful aliments, diſpoſe to ſleep, partly by their immediate effects on the ſtomach, partly by their effects after they are abſorbed. But the degree not being ſo great as in opiates, it may more eaſily be overcome by a variety of common or vigorous impreſſions; in which caſe the vivid vibrations excited by the wine, or aliment, will illuminate all the impreſſions, and add ſtrength to all the motions. The ſame thing is obſerved of opiates, in thoſe who take them frequently.

Sixthly, Chylification, ſanguification, nutrition, and growth, ſeem to proceed beſt during ſleep. This may be conjectured from the ſleepineſs of all animals after eating, ſince ſleep and chylification, &c. muſt here concur; and from the almoſt conſtant ſleep of new-born children, above taken notice of, ſince nature ſeems chiefly intent on the due performance of theſe functions, for ſome time after birth. Now the doctrine of vibrations may be made to illuſtrate theſe points, in ſome meaſure. For ſince reſpiration becomes ſtrong and convulſive at the inſtant of going to ſleep, it will renew and increaſe the vibrations excited in the nerves of the ſtomach and bowels by their contents, which we muſt ſuppoſe to have languiſhed before, in the ſame manner as thoſe which ſubſiſted in the external ſenſes. The organs of digeſtion therefore, as well as thoſe of reſpiration, are in a ſtate of vigilance, and are intent upon the performance of their proper functions, while the other parts are in a ſtate of ſleep and inaction, and recruiting, in order to perform their functions in a due manner, upon a return of vigilance. And this holds moſt particularly in reſpect of the medullary ſubſtance of the brain, ſpinal marrow, and nerves, which, by the conſent of all, is the chief inſtrument of nutrition and growth. Since the vibrations which take place in it during ſleep are languid, it will then be filled and recruited, and conſequently fitted for nutrition and growth; which will be farther favoured by the concurrence of a complete chylification and ſanguification, at the ſame time.

The increaſed convulſive reſpiration, and increaſed force of the heart, which take place at the inſtant of going to ſleep, and continue frequently during ſleep, may perhaps be thus accounted for, agreeably to the doctrine of vibrations. When vivid vibrations ceaſe in the external ſenſes, and regions of the brain belonging to them, alſo in the muſcles of the limbs, and parts of the ſpinal marrow correſponding thereto, this abatement of vibrations muſt either extend to the whole medullary ſubſtance, which ſeems to be the caſe in the night-mare; or if the nerves of the heart, and organs of reſpiration, and the regions of the brain and ſpinal marrow correſponding thereto, be exempted, they may be agitated even with more vigorous vibrations, on account of the

abatement

abatement in the other parts, becauſe the vibrations raiſed in theſe regions during ſleep, by ſuch of their cauſes as take place then, will be hindered from diffuſing themſelves freely, and abating their own force thereby, as ſoon as the other regions are collapſed and compreſſed. Theſe cauſes are, firſt, the heat of the blood, and pulſation of the arteries of the medullary ſubſtance; both which, when increaſed on any account, muſt farther increaſe themſelves by a reflected influence, ſince both increaſe the force of the heart. Secondly, the fulneſs and diſtention of the lungs. Theſe ariſe from the rarefaction of the blood, and accumulation of it in the veins juſt before ſleep (at which time reſpiration is languid), and muſt at laſt ſtimulate the organs of reſpiration to a vigorous exertion of themſelves, *i. e.* raiſe vigorous vibrations in the region of the brain correſponding thereto, juſt as in the caſes of ſighing, and recovering from the night-mare. Thirdly, we may ſuppoſe, that the heart, and muſcles of reſpiration, do not exert themſelves during vigilance, with a degree of force at all approaching to their utmoſt powers, as the limbs do; and therefore, that they, and the correſponding regions of the brain, may be qualified for a vigorous exertion during ſleep. Fourthly, an increaſe in the force of reſpiration muſt alſo increaſe the force with which the heart moves, becauſe it propels the blood in greater quantities upon the heart. Fifthly, an increaſe of force in the heart muſt increaſe both itſelf, and the action of reſpiration, becauſe the blood veſſels of the heart and organs of reſpiration are particularly near to the heart, and therefore muſt be particularly under its influence.

Corollary 1. By laying together what has been delivered concerning ſleep, in this propoſition, the difference between the ſtates of ſleep and vigilance may be thus ſet before the reader, in one view. In ſleep, the nerves of the five external ſenſes are indiſpoſed to receive vibrations, and the objects themſelves are either abſent, or impreſſed feebly. The nerves of the ſtomach and bowels ſympathize with theſe at firſt, but recover themſelves at the inſtant of ſleep, the impreſſions of the aliment, &c. being then made with unuſual vigour; and this continues during the time of ſleep. In like manner the muſcular ſyſtem becomes inactive in general; the heart, however, and muſcles of reſpiration, are excepted, and even exert themſelves with an extraordinary degree of force. The blood is rarefied ſo as to take up more ſpace upon the whole; and as there is more in the veins, and particularly in thoſe of the brain, and ſpinal marrow, than in a ſtate of vigilance, the medullary ſubſtance is hereby expoſed to a conſtant uniform compreſſion; whereas, in vigilance, the action of the muſcles ſqueezes the blood out of the veins, and cools it, unleſs this action be violent, or long continued. The glands are filled during ſleep, and conſequently, by drawing off from the fulneſs of the blood veſſels, prepare the body for vigilance, and are themſelves fitted for the functions to be then performed, *i. e.* to excrete their proper fluids from muſcular compreſſion, or vibrations running up their excretory ducts, in the manner to be hereafter explained. The medullary ſubſtance is, in like manner, fitted and prepared for vigilance, whether it be of a glandular nature, or not. However, ſome vibrations muſt

take place in it throughout, and they are particularly vivid in the regions correſponding to the heart, organs of reſpiration, and organs of digeſtion; alſo in the regions correſponding to the eye and ear, where they excite the trains of images which are preſented to us in our dreams. But the nature of theſe cannot be unfolded till we have treated of ideas, their generation and aſſociations, and the nature of true and erroneous judgments, aſſent, diſſent, imagination and memory.

Cor. 2. It appears alſo to follow from the foregoing account of ſleep, and the effect of heat, labour, pain, and opiates, in diſpoſing to it, that, in many caſes of ſleep, the medullary ſubſtance tends to a ſubtle kind of inflammation, and is preſerved from it, and reſtored to its natural ſtate, and degree of heat, by means of ſleep ſufficiently continued. Thus, in the acceſs of moſt fevers, the patient is liſtleſs and ſleepy, the external ſenſes, muſcles, and brain, being affected, in ſome reſpects, as by opiates. If the patient ſleeps, the diſtemper is cut ſhort; but if the ſubtle inflammation be ſo great as to prevent that, the diſtemper increaſes, and comes to its period in ſome other way, according to the nature of the fever, and circumſtances of the patient. In a *coma vigil* it ſeems to me, that the approach of the oppoſite ſides of the ventricles excites ſuch violent vibrations, on account of the inflammation of the medullary ſubſtance, perhaps of theſe ſides particularly, as to awake the patient, and throw him into great confuſion and conſternation. In a frenzy, the medullary ſubſtance itſelf ſeems to labour under an acute temporary inflammation, the other parts having often no more than a due heat, whereas, in the delirium of a fever, the medullary ſubſtance only ſympathizes with the other parts. If the inflammation of the medullary ſubſtance be very ſubtle, moderate, and permanent, madneſs of ſome ſpecies enſues. And it ſeems to agree very well with the theory here propoſed, that in deliriums, frenzies, and ſome kinds of madneſs, the patient does not ſleep at all, or, if he does, in a quiet manner, is freed from his diſtemper; and that, in other kinds of madneſs, and in caſes of melancholy, the ſleep is very deep, and the patient extremely ſluggiſh.

SECT. II.

OF IDEAS, THEIR GENERATION AND ASSOCIATIONS; AND OF THE AGREEMENT OF THE DOCTRINE OF VIBRATIONS WITH THE PHÆNOMENA OF IDEAS.

PROP. VIII.

Senſations, by being often repeated, leave certain Veſtiges, Types, or Images, of themſelves, which may be called, Simple Ideas of Senſation.

I TOOK notice in the introduction, that thoſe ideas which reſemble ſenſations were called ideas of ſenſation; and alſo that they might be called *ſimple* ideas, in reſpect of the intellectual ones which are formed from them, and of whoſe very eſſence it is to be *complex*. But the ideas of ſenſation are not entirely ſimple, ſince they muſt conſiſt of parts both co-exiſtent and ſucceſſive, as the generating ſenſations themſelves do.

Now, that the ſimple ideas of ſenſation are thus generated, agreeably to the propoſition, appears, becauſe the moſt vivid of theſe ideas are thoſe where the correſponding ſenſations are moſt vigorouſly impreſſed, or moſt frequently renewed; whereas, if the ſenſation be faint, or uncommon, the generated idea is alſo faint in proportion, and, in extreme caſes, evaneſcent and imperceptible. The exact obſervance of the order of place in viſible ideas, and of the order of time in audible ones, may likewiſe ſerve to ſhew, that theſe ideas are copies and offſprings of the impreſſions made on the eye and ear, in which the ſame orders were obſerved reſpectively. And though it happens, that trains of viſible and audible ideas are preſented in ſallies of the fancy, and in dreams, in which the order of time and place is different from that of any former impreſſions, yet the ſmall component parts of theſe trains are copies of former impreſſions; and reaſons may be given for the varieties of their compoſitions.

It is alſo to be obſerved, that this propoſition bears a great reſemblance to the third, and that, by this reſemblance, they ſomewhat confirm and illuſtrate one another. According to the third propoſition, ſenſations remain for a ſhort time after the impreſſion is removed; and theſe remaining ſenſations grow feebler and feebler, till they vaniſh. They are therefore, in ſome part of their declenſion, of about the ſame ſtrength with ideas, and, in their firſt ſtate, are intermediate between ſenſations and ideas. And it ſeems reaſonable to expect, that, if a ſingle ſenſation can leave a perceptible effect, trace, or veſtige, for a ſhort time, a ſufficient repetition of a ſenſation may leave a perceptible effect of the ſame kind, but of a more permanent nature, *i. e.* an idea, which ſhall recur occaſionally, at long diſtances of time, from the impreſſion of

the correſponding ſenſation, and *vice verſâ*. As to the occaſions and cauſes, which make ideas recur, they will be conſidered in the next propoſition but one.

The method of reaſoning uſed in the laſt paragraph, is farther confirmed by the following circumſtance; *viz.* that both the diminutive declining ſenſations, which remain for a ſhort ſpace after the impreſſions of the objects ceaſe, and the ideas, which are the copies of ſuch impreſſions, are far more diſtinct and vivid, in reſpect of viſible and audible impreſſions, than of any others. To which it may be added, that, after travelling, hearing muſick, &c. trains of vivid ideas are very apt to recur, which correſpond very exactly to the late impreſſions, and which are of an intermediate nature between the remaining ſenſations of the third propoſition, in their greateſt vigour, and the ideas mentioned in this.

The ſenſations of feeling, taſte, and ſmell, can ſcarce be ſaid to leave ideas, unleſs very indiſtinct and obſcure ones. However, as analogy leads one to ſuppoſe, that theſe ſenſations may leave traces of the ſame kind, though not in the ſame degree, as thoſe of ſight and hearing; ſo the readineſs with which we reconnoiter ſenſations of feeling, taſte, and ſmell, that have been often impreſſed, is an evidence, that they do ſo; and theſe generated traces or diſpoſitions of mind may be called the ideas of feeling, taſte, and ſmell. In ſleep, when all our ideas are magnified, thoſe of feeling, taſte, and ſmell, are often ſufficiently vivid and diſtinct; and the ſame thing happens in ſome few caſes of vigilance.

PROP. IX.

Senſory Vibrations, by being often repeated, beget, in the medullary Subſtance of the Brain, a Diſpoſition to diminutive Vibrations, which may alſo be called Vibratiuncles and Miniatures, correſponding to themſelves reſpectively.

This correſpondence of the diminutive vibrations to the original ſenſory ones, conſiſts in this, that they agree in kind, place, and line of direction; and differ only in being more feeble, *i. e.* in degree.

This propoſition follows from the foregoing. For ſince ſenſations, by being often repeated, beget ideas, it cannot but be that thoſe vibrations, which accompany ſenſations, ſhould beget ſomething which may accompany ideas in like manner; and this can be nothing but feebler vibrations, agreeing with the ſenſory generating vibrations in kind, place, and line of direction.

Or thus: By the firſt propoſition it appears, that ſome motion muſt be excited in the medullary ſubſtance, during each ſenſation; by the fourth, this motion is determined to be a vibratory one: ſince therefore ſome motion muſt alſo, by the ſecond, be excited in the medullary ſubſtance during the preſence of each idea, this motion cannot be any other than a vibratory one: elſe how ſhould it proceed from the original vibration attending the ſenſation, in the ſame manner as the idea does from the ſenſation itſelf?

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It muſt alſo agree in kind, place, and line of direction, with the generating vibration. A vibratory motion, which recurs t times in a ſecond, cannot beget a diminutive one that recurs $\frac{1}{2}t$, or $2t$ times; nor one originally impreſſed on the region of the brain correſponding to the auditory nerves, beget diminutive vibrations in the region correſponding to the optic nerves; and ſo of the reſt. The line of direction muſt likewiſe be the ſame in the original and derivative vibrations. It remains therefore, that each ſimple idea of ſenſation be attended by diminutive vibrations of the ſame kind, place, and line of direction, with the original vibrations attending the ſenſation itſelf: or, in the words of the propoſition, that ſenſory vibrations, by being frequently repeated, beget a diſpoſition to diminutive vibrations correſponding to themſelves reſpectively. We may add, that the vibratory nature of the motion which attends ideas, may be inferred from the continuance of ſome ideas, viſible ones for inſtance, in the fancy for a few moments.

This proof of the preſent propoſition from the foregoing, appears to be inconteſtable, admitting the fourth: however, it will much eſtabliſh and illuſtrate the doctrines of vibrations and aſſociation, to deduce it directly, if we can, from the nature of vibratory motions, and of an animal body; and not only from the relation between ſenſations and ideas. Let us ſee, therefore, what progreſs we can make in ſuch an attempt.

Firſt then, If we admit vibrations of the medullary particles at all, we muſt conceive, that ſome take place in the *fœtus in utero*, both on account of the warmth in which it lies, and of the pulſation of thoſe conſiderable arteries, which paſs through the medullary ſubſtance, and which conſequently muſt compreſs and agitate it upon every contraction of the heart. And theſe vibrations are probably either uniform in kind and degree, if we conſider ſhort ſpaces of time; or, if long ones, increaſe in a ſlow uniform manner, and that in degree only, as the *fœtus in utero* increaſes in bulk and ſtrength. They are alſo probably the ſame in all the different regions of the medullary ſubſtance. Let theſe vibrations be called the *natural vibrations*.

Secondly, As ſoon as the child is born, external objects act upon it violently, and excite vibrations in the medullary ſubſtance, which differ from the natural ones, and from each other, in degree, kind, place, and line of direction. We may alſo conceive, that each region of the medullary ſubſtance has ſuch a texture as to receive, with the greateſt facility, the ſeveral ſpecific vibrations, which the objects correſponding reſpectively to theſe regions, *i. e.* to their nerves, are moſt diſpoſed to excite. Let theſe vibrations be, for the preſent, called *preternatural ones*, in contradiſtinction to thoſe which we juſt now called *natural ones*.

Thirdly, Repreſenting now the natural vibrations by N, and the preternatural ones, from various objects, by A, B, C, &c. let us ſuppoſe the firſt object to impreſs the vibrations A, and then to be removed. It is evident from the nature of vibratory motions, that the medullary ſubſtance will not, immediately upon the removal of this object, return to its natural ſtate N, but will remain, for a ſhort ſpace of time,

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in the preternatural ſtate *A*, and paſs gradually from *A* to *N*. Suppoſe the ſame object to be impreſſed again and again, for a ſufficient number of times, and it ſeems to follow, that the medullary ſubſtance will be longer in paſſing from *A* to *N*, after the ſecond impreſſion, than after the firſt, after the third impreſſion than ſecond, &c. till, at laſt, it will not return to its natural original ſtate of vibrations *N* at all, but remain in the preternatural ſtate *A*, after the vibrations have fallen to a diminutive pitch, their kind and place, or chief ſeat, and their line of direction, continuing the ſame. This ſtate may therefore be fitly denoted by *a*, and being now in the place of the natural ſtate *N*, it will be kept up by the heat of the medullary ſubſtance, and the pulſation of its arteries. All this ſeems to follow from the above-mentioned diſpoſition of animal bodies to accommodate themſelves to, and continue in, almoſt any ſtate that is often impreſſed; which is evident from innumerable both common and medical obſervations, whatever be determined concerning the manner of explaining and accounting for theſe facts. For the alterations which habit, cuſtom, frequent impreſſion, &c. make in the ſmall conſtituent particles, can ſcarce be any thing beſides alterations of the diſtances, and mutual actions, of theſe particles; and theſe laſt alterations muſt alter the natural tendency to vibrate. We muſt, however, here reſume the ſuppoſition made in the laſt paragraph, viz. that the ſeveral regions of the brain have ſuch a texture as diſpoſes them to thoſe ſpecific vibrations, which are to be impreſſed by the proper objects in the events of life. And this will much facilitate and accelerate the tranſition of the ſtate *N* into *a*; ſince we are to ſuppoſe a prediſpoſition to the ſtate *A*, or *a*.

It will ſomewhat illuſtrate and confirm this reaſoning, to remark, that muſical ſtrings always accommodate themſelves to, and lean towards, the ſtate into which they were laſt put. Thus the tone of a muſical ſtring either riſes or falls upon altering its tenſion, according as the preceding tenſion was greater or leſs than its preſent tenſion. Now the ſmall component parts of a muſical ſtring muſt recede from, and approach to each other, *i. e.* muſt oſcillate lengthways, during every tranſverſe oſcillation of the ſtring. And this muſt ariſe from the mutual influences of the component particles tending to their laſt ſuperinduced ſtate. Let us ſuppoſe ſomething analogous to this to take place in the component molecules of the brain, the molecules of the molecules, &c. and it will follow, that *A* may over-power *N*, and *a* become the natural ſtate. Now, ſince the human body is compoſed of the ſame matter as the external world, it is reaſonable to expect, that its component particles ſhould be ſubjected to the ſame ſubtle laws. And the exquiſite ſtructure of animal bodies in ſo many other reſpects, makes it eaſier to conceive, that the organ of organs, viz. the medullary ſubſtance ſhould be endued with a proper ſubtle ultimate ſtructure, for the purpoſe of retaining a ſtate that is frequently impreſſed. One may gueſs alſo, that it is better ſuited to this purpoſe during its growth, *i. e.* in paſſing from infancy to adult age, than afterwards; as this would be very agreeable to the phænomena.

Fourthly,

Fourthly, Suppoſe now the vibrations *A*, *B*, *C*, *D*, &c. belonging to each of the ſenſes, to be excited, and repeated in ſuch order and manner as uſually happens to the new-born infant upon its entrance into this new ſcene of things. It is evident, that theſe will have a greater power to over-rule the natural ſtate *N*, than the vibrations *A* from one ſingle object could have: for *A* affected only one region of the medullary ſubſtance primarily; whereas *A*, *B*, *C*, *D*, &c. affect all the regions primarily in their turn. It is evident alſo, that the ſecondary vibrations, or thoſe which are propagated from the region of the medullary ſubſtance primarily affected into the reſt, will be over-ruled, in great meaſure, in each region, by the primary vibrations peculiar to that region. Laſtly, It is evident, that of the vibrations which are excited in each region, no one can prevail over all the reſt, but each muſt leave an effect, in proportion to its ſtrength and frequency. We may conceive therefore, that each region of the medullary ſubſtance will have a tendency generated in it, to vibrate with vibrations of the ſame frequency (but weaker in degree) as thoſe which the ſeveral appropriated objects impreſs upon it reſpectively; and that diminutive vibrations reſembling them will riſe in ſucceſſion in each region. for each region may eaſily be conceived to lean ſometimes to the vibrations from one object, ſometimes to thoſe from another, according to the ſtrength, frequency, and novelty of the impreſſion, the then preſent diſpoſition of the nervous ſyſtem, aſſociation (of which in the two next propoſitions), and other ſuch-like cauſes. And for the ſame reaſon, as in every ſenſe the idea of ſome one object of that ſenſe muſt prevail over all the reſt, we may conclude, that ſometimes the ideas belonging to one ſenſe, ſometimes thoſe belonging to another, will prevail over the reſt.

Or thus: Some vibrations there muſt always be in the medullary ſubſtance, on account of its heat, and the pulſation of the arteries which paſs through it. Theſe cannot be the natural ones *N*, becauſe they will ſoon be over-ruled by the great force and variety of the impreſſions made on the new-born infant, which muſt alſo diſpoſe each region of the brain to lean to ſome or other of thoſe vibrations which are excited in it primarily. Hence we may conceive, that a very complex ſet of vibrations, ariſing from the mixture and combinations of degree, kind, place, and line of direction, exiſts always in the medullary ſubſtance, being kept up by its heat, and the pulſation of its arteries, when other cauſes are wanting, almoſt in the ſame manner as in a concert of muſic the air is agitated by vibrations of a very complex kind. But then, as in a concert, ſome one inſtrument generally ſtrikes the ear more than the reſt, ſo of the complex vibrations which exiſt in the medullary ſubſtance, ſome one part will prevail over the reſt, and preſent the correſponding idea to the mind. Some region muſt be diſpoſed, at each inſtant, to vibrate ſtronger than the reſt; and of the ſpecific vibrations which are generally impreſſed upon this region, ſome one will have a more favourable concurrence of circumſtances than the reſt. And thus it will follow, according to the terms of the propoſition, that ſenſory vibrations, by being ſufficiently repeated, will beget

beget a diſpoſition to miniature vibrations correſponding to them reſpectively; or, uſing the appellations above-aſſumed, that *A*, *B*, *C*, &c. will beget *a*, *b*, *c*, &c.

If we allow the proof of this propoſition, thus deduced from the nature of vibratory motions, and of an animal body, the foregoing propoſition will follow from it, and hold equally, in reſpect of the ſenſes of feeling, taſte, and ſmell, as of ſight and hearing. Or, in other words, if we allow, that original impreſſed vibratory motions leave a tendency to miniature ones of the ſame kind, place, and line of direction, it will follow, that ſenſations muſt beget ideas, and that not only in the ſenſes of ſight and hearing, where the ideas are ſufficiently vivid and diſtinct, but in the three others, ſince their ſenſations are alſo conveyed to the mind by means of vibratory motions. We may alſo, perhaps, diſcover hereafter, from the nature of vibratory motions, and of the human brain, compared with the circumſtances of life, why the ideas of one ſenſe are more vivid and diſtinct than thoſe of another.

PROP. X.

Any Senſations A, B, C, *&c. by being aſſociated with one another a ſufficient Number of Times, get ſuch a Power over the correſponding Ideas* a, b, c, *&c. that any one of the Senſations* A, *when impreſſed alone, ſhall be able to excite in the Mind* b, c, *&c. the Ideas of the Reſt.*

SENSATIONS may be ſaid to be aſſociated together, when their impreſſions are either made preciſely at the ſame inſtant of time, or in the contiguous ſucceſſive inſtants. We may therefore diſtinguiſh aſſociation into two ſorts, the ſynchronous, and the ſucceſſive.

The influence of aſſociation over our ideas, opinions and affections, is ſo great and obvious, as ſcarce to have eſcaped the notice of any writer who has treated of theſe, though the word *aſſociation*, in the particular ſenſe here affixed to it, was firſt brought into uſe by Mr. *Locke*. But all that has been delivered by the ancients and moderns, concerning the power of habit, cuſtom, example, education, authority, party-prejudice, the manner of learning the manual and liberal arts, &c. goes upon this doctrine as its foundation, and may be conſidered as the detail of it, in various circumſtances. I here begin with the ſimpleſt caſe, and ſhall proceed to more and more complex ones continually, till I have exhauſted what has occurred to me upon this ſubject.

This propoſition, or firſt and ſimpleſt caſe of aſſociation, is manifeſt from innumerable common obſervations. Thus the names, ſmells, taſtes, and tangible qualities of natural bodies, ſuggeſt their viſible appearances to the fancy, *i. e.* excite their viſible ideas; and, *vice verſâ*, their viſible appearances impreſſed on the eye raiſe up thoſe powers of reconnoitering their names, ſmells, taſtes, and tangible qualities, which may not improperly be called their ideas, as above noted; and in ſome caſes raiſe up ideas, which may be compared with viſible ones, in reſpect of vividneſs. All

which

which is plainly owing to the aſſociation of the ſeveral ſenſible qualities of bodies with their names, and with each other. It is remarkable, however, as being agreeable to the ſuperior vividneſs of viſible and audible ideas before taken notice of, that the ſuggeſtion of the viſible appearance from the name, is the moſt ready of any other; and, next to this, that of the name from the viſible appearance; in which laſt caſe, the reality of the audible idea, when not evident to the fancy, may be inferred from the ready pronunciation of the name. For it will be ſhewn hereafter, that the audible idea is moſt commonly a previous requiſite to pronunciation. Other inſtances of the power of aſſociation may be taken from compound viſible and audible impreſſions. Thus the ſight of part of a large building ſuggeſts the idea of the reſt inſtantaneouſly; and the ſound of the words which begin a familiar ſentence, brings the remaining part to our memories in order, the aſſociation of the parts being ſynchronous in the firſt caſe, and ſucceſſive in the laſt.

It is to be obſerved, that, in ſucceſſive aſſociations, the power of raiſing the ideas is only exerted according to the order in which the aſſociation is made. Thus, if the impreſſions *A*, *B*, *C*, be always made in the order of the alphabet, *B* impreſſed alone will not raiſe *a*, but *c* only. Agreeably to which, it is eaſy to repeat familiar ſentences in the order in which they always occur, but impoſſible to do it readily in an inverted one. The reaſon of this is, that the compound idea, *c*, *b*, *a*, correſponds to the compound ſenſation *C*, *B*, *A*; and therefore requires the impreſſion of *C*, *B*, *A*, in the ſame manner as *a*, *b*, *c*, does that of *A*, *B*, *C*. This will, however, be more evident, when we come to conſider the aſſociations of vibratory motions, in the next propoſition.

It is alſo to be obſerved, that the power of aſſociation grows feebler, as the number either of ſynchronous or ſucceſſive impreſſions is increaſed, and does not extend, with due force, to more than a ſmall one, in the firſt and ſimpleſt caſes. But, in complex caſes, or the aſſociations of aſſociations, of which the memory, in its full extent, conſiſts, the powers of the mind, deducible from this ſource, will be found much greater than any perſon, upon his firſt entrance on theſe inquiries, could well imagine.

PROP. XI.

Any Vibrations, A, B, C, *&c. by being aſſociated together a ſufficient Number of Times, get ſuch a Power over* a, b, c, *&c. the correſponding miniature Vibrations, that any of the Vibrations* A, *when impreſſed alone, ſhall be able to excite* b, c, *&c. the Miniatures of the Reſt.*

This propoſition may be deduced from the foregoing, in the ſame manner as the ninth has been from the eighth.

But it ſeems alſo deducible from the nature of vibrations, and of an animal body. Let *A* and *B* be two vibrations, aſſociated ſynchronically. Now, it is evident, that the

vibration *A* (for I will, in this propoſition, ſpeak of *A* and *B* in the ſingular number, for the ſake of greater clearneſs) will, by endeavouring to diffuſe itſelf into thoſe parts of the medullary ſubſtance which are affected primarily by the vibration *B*, in ſome meaſure modify and change *B*, ſo as to make *B* a little different from what it would be, if impreſſed alone. For the ſame reaſons the vibration *A* will be a little affected, even in its primary ſeat, by the endeavour of *B* to diffuſe itſelf all over the medullary ſubſtance. Suppoſe now the vibrations *A* and *B* to be impreſſed at the ſame inſtant, for a thouſand times; it follows, from the ninth propoſition, that they will firſt over-come the diſpoſition to the natural vibrations *N*, and then leave a tendency to themſelves, which will now occupy the place of the original natural tendency to vibrations. When therefore the vibration *A* is impreſſed alone, it cannot be entirely ſuch as the object would excite of itſelf, but muſt lean, even in its primary ſeat, to the modifications and changes induced by *B*, during their thouſand joint impreſſions; and therefore much more, in receding from this primary ſeat, will it lean that way; and when it comes to the ſeat of *B*, it will excite *B*'s miniature a little modified and changed by itſelf.

Or thus: when *A* is impreſſed alone, ſome vibration muſt take place in the primary ſeat of *B*, both on account of the heat and pulſation of the arteries, and becauſe *A* will endeavour to diffuſe itſelf over the whole medullary ſubſtance. This cannot be that part of the natural vibrations *N*, which belongs to this region, becauſe it is ſuppoſed to be over-ruled already. It cannot be that which *A* impreſſed alone would have propagated into this region, becauſe that has always hitherto been over-ruled, and converted into *B*; and therefore cannot have begotten a tendency to itſelf. It cannot be any full vivid vibration, ſuch as *B*, *C*, *D*, &c. belonging to this region, becauſe all full vibrations require the actual impreſſion of an object upon the correſponding external organ. And of miniature vibrations belonging to this region, ſuch as *b*, *c*, *d*, &c. it is evident, that *b* has the preference, ſince *A* leans to it a little, even in its own primary ſeat, more and more, in receding from this, and almoſt intirely, when it comes to the primary ſeat of *B*. For the ſame reaſons *B* impreſſed alone will excite *a*; and, in general, if *A*, *B*, *C*, &c. be vibrations ſynchronically impreſſed on different regions of the medullary ſubſtance, *A* impreſſed alone will, at laſt, excite *b*, *c*, &c. according to the propoſition.

If *A* and *B* be vibrations impreſſed ſucceſſively, then will the latter part of *A*, viz. that part which, according to the third and fourth propoſitions, remains, after the impreſſion of the object ceaſes, be modified and altered by *B*, at the ſame time that it will a little modify and alter it, till at laſt it be quite over-powered by it, and end in it. It follows therefore, by a like method of reaſoning, that the ſucceſſive impreſſion of *A* and *B*, ſufficiently repeated, will ſo alter the medullary ſubſtance, as that when *A* is impreſſed alone, its latter part ſhall not be ſuch as the ſole impreſſion of *A* requires, but lean towards *B*, and end in *b* at laſt. But *B* will not excite *a* in a retrograde order,

ſince,

ſince, by ſuppoſition, the latter part of *B* was not modified and altered by *A*, but by ſome other vibration, ſuch as *C* or *D*. And as *B*, by being followed by *C*, may at laſt raiſe *c*, ſo *b*, when raiſed by *A*, in the method here propoſed, may be alſo ſufficient to raiſe *c*, inaſmuch as the miniature *c* being a feeble motion, not ſtronger, perhaps, than the natural vibrations *N*, requires only to have its kind, place, and line of direction, determined by aſſociation, the heat and arterial pulſation conveying to it the requiſite degree of ſtrength. And thus *A* impreſſed alone, will raiſe *b*, *c*, &c. in ſucceſſive aſſociations, as well as in ſynchronous ones, according to the propoſition.

It ſeems alſo, that the influence of *A* may, in ſome degree, reach through *B* to *C*; ſo that *A* of itſelf may have ſome effect to raiſe *c*, as well as by means of *b*. However, it is evident, that this chain muſt break off, at laſt, in long ſucceſſions, and that ſooner or later, according to the number and vigour of the repeated impreſſions. The power of miniature vibrations to raiſe other miniatures may, perhaps, be made clearer to mathematicians, by hinting, that the efficacy of any vibration to raiſe any other, is not in the ſimple ratio of its vividneſs, but as ſome power thereof leſs than unity; for thus *b* may raiſe *c*, a weaker vibration than *b*, *c* may raiſe *d*, &c. with more facility than if the efficacy was in the ſimple ratio of the vividneſs, and yet ſo, that the ſeries ſhall break off at laſt.

If the ninth propoſition be allowed, we may prove this in ſomewhat a ſhorter and eaſier manner, as follows. Since the vibrations *A* and *B* are impreſſed together, they muſt, from the diffuſion neceſſary to vibratory motions, run into one vibration; and conſequently, after a number of impreſſions ſufficiently repeated, will leave a trace, or miniature, of themſelves, as one vibration, which will recur every now and then, from ſlight cauſes. Much rather, therefore, may the part *b* of the compound miniature *a*+*b* recur, when the part *A* of the compound original vibration *A*+*B* is impreſſed.

And as the ninth propoſition may be thus made to prove the preſent, ſo it ought to be acknowledged and remarked here, that, unleſs the ninth be allowed, the preſent cannot be proved, or that the power of aſſociation is founded upon, and neceſſarily requires, the previous power of forming ideas, and miniature vibrations. For ideas, and miniature vibrations, muſt firſt be generated, according to the eighth and ninth propoſitions, before they can be aſſociated, according to the tenth and this eleventh. But then (which is very remarkable) this power of forming ideas, and their correſponding miniature vibrations, does equally preſuppoſe the power of aſſociation. For ſince all ſenſations and vibrations are infinitely diviſible, in reſpect of time and place, they could not leave any traces or images of themſelves, *i. e.* any ideas, or miniature vibrations, unleſs their infiniteſimal parts did cohere together through joint impreſſion; *i. e.* aſſociation. Thus, to mention a groſs inſtance, we could have no proper idea of a horſe, unleſs the particular ideas of the head, neck, body, legs, and tail, peculiar to this animal, ſtuck to each other in the fancy, from frequent joint impreſſion. And, therefore, in dreams, where complex aſſociations are much weakened, and various

parcels of viſible ideas, not joined in nature, ſtart up together in the fancy, contiguous to each other, we often ſee monſters, chimeras, and combinations, which have never been actually preſented.

Aſſociation ſeems alſo neceſſary to diſpoſe the medullary ſubſtance to this or that miniature vibration, in ſucceſſion, after the miniatures of a large number of original vibrations have been generated.

Nor does there ſeem to be any preciſe limit which can be ſet to this mutual dependence of the powers of generating miniatures, and of aſſociation upon each other: however, they may both take place together, as the heart and brain are ſuppoſed to do, or both depend upon one ſimple principle; for it ſeems impoſſible, that they ſhould imply one another, *ad infinitum*. There is no greater difficulty here than in many other caſes of mutual indefinite implication, known and allowed by all. Nay, one may almoſt deduce ſome preſumption in favour of the hypotheſis here produced, from this mutual indefinite implication of its parts, ſo agreeable to the tenor of nature in other things. And it is certainly a preſumption in its favour, that a leſs power of generating miniatures will be a foundation for a larger of a aſſociation, and *vice verſâ*, till, at laſt, the whole ſuperſtructure of ideas and aſſociations obſervable in human life, may, by proceeding upwards according to analyſis, and downwards according to ſyntheſis, be built upon as ſmall a foundation as we pleaſe. Thus we may obſerve, that neither does this eleventh propoſition neceſſarily require the ninth, in its full extent, nor *vice verſâ*, for their demonſtration. The leaſt miniatures, with the feebleſt coheſions of their parts, will, by degrees, run into larger, with ſtronger coheſions, from the ſame principles; nor are there any viſible limits to the influence and extent of theſe powers, ſuppoſing the natural faculties of the being under conſideration ſufficiently extended.

Let me add, that the generation of ſenſible ideas from ſenſations, and the power of raiſing them from aſſociation, when conſidered as faculties of the mind, are evident and unqueſtionable. Since therefore ſenſations are conveyed to the mind, by the efficiency of corporeal cauſes upon the medullary ſubſtance, as is acknowledged by all phyſiologiſts and phyſicians, it ſeems to me, that the powers of generating ideas, and raiſing them by aſſociation, muſt alſo ariſe from corporeal cauſes, and conſequently admit of an explication from the ſubtle influences of the ſmall parts of matter upon each other, as ſoon as theſe are ſufficiently underſtood, which is farther evinced from the manifeſt influences of material cauſes upon our ideas and aſſociations, taken notice of under the ſecond propoſition. And as a vibratory motion is more ſuitable to the nature of ſenſation than any other ſpecies of motion, ſo does it ſeem alſo more ſuitable to the powers of generating ideas, and raiſing them by aſſociation. However, theſe powers are evident independently, as juſt now obſerved; ſo that the doctrine of aſſociation may be laid down as a certain foundation, and a clue to direct our future inquiries, whatever becomes of that of vibrations.

PROP.

PROP. XII.

Simple Ideas will run into complex ones, by Means of Aſſociation.

In order to explain and prove this propoſition, it will be requiſite to give ſome previous account of the manner in which ſimple ideas of ſenſation may be aſſociated together.

Caſe 1. Let the ſenſation *A* be often aſſociated with each of the ſenſations *B*, *C*, *D*, &c. *i. e.* at certain times with *B*, at certain other times with *C*, &c. it is evident, from the tenth propoſition, that *A*, impreſſed alone, will, at laſt, raiſe *b*, *c*, *d*, &c. all together *i. e.* aſſociate them with one another, provided they belong to different regions of the medullary ſubſtance; for if any two, or more, belong to the ſame region, ſince they cannot exiſt together in their diſtinct forms, *A* will raiſe ſomething intermediate between them.

Caſe 2. If the ſenſations *A*, *B*, *C*, *D*, &c. be aſſociated together, according to various combinations of twos, or even threes, fours, &c. then will *A* raiſe *b*, *c*, *d*, &c. alſo *B* raiſe *a*, *c*, *d*, &c. as in caſe the firſt.

It may happen, indeed, in both caſes, that *A*, may raiſe a particular miniature, as *b*, preferably to any of the reſt, from its being more aſſociated with *B*, from the novelty of the impreſſion of *B*, from a tendency in the medullary ſubſtance to favour *b*, &c. and, in like manner, that *b* may raiſe *c* or *d* preferably to the reſt. However, all this will be over-ruled, at laſt, by the recurrency of the aſſociations; ſo that any one of the ſenſations will excite the ideas of the reſt, at the ſame inſtant, *i. e.* aſſociate them together.

Caſe 3. Let *A*, *B*, *C*, *D*, &c. repreſent ſucceſſive impreſſions, it follows from the tenth and eleventh propoſitions, that *A* will raiſe *b*, *c*, *d*, &c. *B* raiſe *c*, *d*, &c. And though the ideas do not, in this caſe, riſe preciſely at the ſame inſtant, yet they come nearer together than the ſenſations themſelves did in their original impreſſion; ſo that theſe ideas are aſſociated almoſt ſynchronically at laſt, and ſucceſſively from the firſt. The ideas come nearer to one another than the ſenſations, on account of their diminutive nature, by which all that appertains to them is contracted. And this ſeems to be as agreeable to obſervation as to theory.

Caſe 4. All compound impreſſions $A+B+C+D$, &c. after ſufficient repetition leave compound miniatures $a+b+c+d$, &c. which recur every now and then from ſlight cauſes, as well ſuch as depend on aſſociation, as ſome which are different from it. Now, in theſe recurrencies of compound miniatures, the parts are farther aſſociated, and approach perpetually nearer to each other, agreeably to what was juſt now obſerved, *i. e.* the aſſociation becomes perpetually more cloſe and intimate.

Caſe

Caſe 5. When the ideas *a*, *b*, *c*, *d*, &c. have been ſufficiently aſſociated in any one or more of the foregoing ways, if we ſuppoſe any ſingle idea of theſe, *a* for inſtance, to be raiſed by the tendency of the medullary ſubſtance that way, by the aſſociation of *A* with a foreign ſenſation or idea *X* or *x*, &c. this idea *a*, thus raiſed, will frequently bring in all the reſt, *b*, *c*, *d*, &c. and ſo aſſociate all of them together ſtill farther.

And, upon the whole, it may appear to the reader, that the ſimple ideas of ſenſation muſt run into cluſters and combinations, by aſſociation; and that each of theſe will, at laſt, coaleſce into one complex idea, by the approach and commixture of the ſeveral compounding parts.

It appears alſo from obſervation, that many of our intellectual ideas, ſuch as thoſe that belong to the heads of beauty, honour, moral qualities, &c. are, in fact, thus compoſed of parts, which, by degrees, coaleſce into one complex idea.

And as this coaleſcence of ſimple ideas into complex ones is thus evinced, both by the foregoing theory, and by obſervation, ſo it may be illuſtrated, and farther confirmed, by the ſimilar coaleſcence of letters into ſyllables and words, in which aſſociation is likewiſe a chief inſtrument. I ſhall mention ſome of the moſt remarkable particulars, relating to this coaleſcence of ſimple ideas into complex ones, in the following corollaries.

Cor. 1. If the number of ſimple ideas which compoſe the complex one be very great, it may happen, that the complex idea ſhall not appear to bear any relation to theſe its compounding parts, nor to the external ſenſes upon which the original ſenſations, which gave birth to the compounding ideas, were impreſſed. The reaſon of this is, that each ſingle idea is over-powered by the ſum of all the reſt, as ſoon as they are all intimately united together. Thus, in very compound medicines, the ſeveral taſtes and flavours of the ſeparate ingredients are loſt and over-powered by the complex one of the whole maſs: ſo that this has a taſte and flavour of its own, which appears to be ſimple and original, and like that of a natural body. Thus alſo, white is vulgarly thought to be the ſimpleſt and moſt uncompounded of all colours, while yet it really ariſes from a certain proportion of the ſeven primary colours, with their ſeveral ſhades, or degrees. And, to reſume the illuſtration above-mentioned, taken from language, it does not at all appear to perſons ignorant of the arts of reading and writing, that the great variety of complex words of languages can be analyſed up to a few ſimple ſounds.

Cor. 2. One may hope, therefore, that, by purſuing and perfecting the doctrine of aſſociation, we may ſome time or other be enabled to analyſe all that vaſt variety of complex ideas, which paſs under the name of ideas of reflection, and intellectual ideas, into their ſimple compounding parts, *i. e.* into the ſimple ideas of ſenſation, of which they conſiſt. This would be greatly analogous to the arts of writing, and reſolving the colours of the ſun's light, or natural bodies, into their primary conſtituent ones. The complex ideas which I here ſpeak of, are generally excited by words, or viſible objects; but

but they are alſo connected with other external impreſſions, and depend upon them, as upon ſymbols. In whatever way we conſider them, the trains of them which are preſented to the mind ſeem to depend upon the then preſent ſtate of the body, the external impreſſions and the remaining influence of prior impreſſions and aſſociations, taken together.

Cor. 3. It would afford great light and clearneſs to the art of logic, thus to determine the preciſe nature and compoſition of the ideas affixed to thoſe words which have complex ideas, in a proper ſenſe, *i. e.* which excite any combinations of ſimple ideas united intimately by aſſociation; alſo to explain, upon this foundation, the proper uſe of thoſe words, which have no ideas. For there are many words which are mere ſubſtitutes for other words, and many which are only auxiliaries. Now it cannot be ſaid, that either of theſe have ideas, properly ſo called. And though it may ſeem an infinite and impoſſible taſk, thus to analyſe the ſignifications and uſes of words, yet, I ſuppoſe, this would not be more difficult, with the preſent philological and philoſophical helps to ſuch a work, than the firſt making of dictionaries and grammars, in the infancy of philology. Perhaps it may not be amiſs juſt to hint, in this place, that the four following claſſes compriſe all the poſſible kinds into which words can be diſtinguiſhed, agreeably to the plan here propoſed:

1. Words which have ideas, but no definitions.
2. Words which have both ideas and definitions.
3. Words which have definitions, but no ideas.
4. Words which have neither ideas nor definitions.

It is quite manifeſt, that words ſeen or heard, can raiſe no ideas in the mind, or vibrations in the brain, diſtinct from their viſible and audible impreſſions, except as far as they get new powers from aſſociations, either incidental ones, or ariſing from expreſs deſign, as in definitions; and therefore, that all other ways of conſidering words, beſides what is here ſuggeſted, are either falſe or imperfect.

Cor. 4. As ſimple ideas run into complex ones by aſſociation, ſo complex ideas run into decomplex ones by the ſame. But here the varieties of the aſſociations, which increaſe with the complexity, hinder particular ones from being ſo cloſe and permanent, between the complex parts of decomplex ideas, as between the ſimple parts of complex ones: to which it is analogous, in languages, that the letters of words adhere cloſer together than the words of ſentences, both in writing and ſpeaking.

Cor. 5. The ſimple ideas of ſenſation are not all equally and uniformly concerned in forming complex and decomplex ideas, *i. e.* theſe do not reſult from all the poſſible combinations of twos, threes, fours, &c. of all the ſimple ideas; but, on the contrary, ſome ſimple ideas occur in the complex and decomplex ones much oftener than others: and the ſame holds of particular combinations by twos, threes, &c. and innumerable combinations never occur at all in real life, and conſequently are never aſſociated into complex or decomplex ideas. All which correſponds to what happens in real languages;

languages; ſome letters, and combinations of letters, occur much more frequently than others, and ſome combinations never occur at all.

Cor. 6. As perſons who ſpeak the ſame language have, however, a different uſe and extent of words, ſo, though mankind, in all ages and nations, agree, in general, in their complex and decomplex ideas, yet there are many particular differences in them; and theſe differences are greater or leſs, according to the difference, or reſemblance, in age, conſtitution, education, profeſſion, country, age of the world, &c. *i. e.* in their impreſſions and aſſociations.

Cor. 7. When a variety of ideas are aſſociated together, the viſible idea, being more glaring and diſtinct than the reſt, performs the office of a ſymbol to all the reſt, ſuggeſts them, and connects them together. In this it ſomewhat reſembles the firſt letter of a word, or firſt word of a ſentence, which are often made uſe of to bring all the reſt to mind.

Cor. 8. When objects and ideas, with their moſt common combinations, have been often preſented to the mind, a train of them, of a conſiderable length, may, by once occurring, leave ſuch a trace, as to recur in imagination, and in miniature, in nearly the ſame order and proportion as in this ſingle occurrence. For ſince each of the particular impreſſions and ideas is familiar, there will want little more for their recurrency, than a few connecting links; and even theſe may be, in ſome meaſure, ſupplied by former ſimilar inſtances. Theſe conſiderations, when duly unfolded, ſeem to me ſufficient to explain the chief phænomena of memory; and it will be eaſily ſeen from them, that the memory of adults, and maſters in any ſcience, ought to be much more ready and certain than that of children and novices, as it is found to be in fact.

Cor. 9. When the pleaſure or pain attending any ſenſations, and ideas, is great, all the aſſociations belonging to them are much accelerated and ſtrengthened. For the violent vibrations excited in ſuch caſes, ſoon over-rule the natural vibrations, and leave in the brain a ſtrong tendency to themſelves, from a few impreſſions. The aſſociations will therefore be cemented ſooner and ſtronger than in common caſes; which is found agreeable to the fact.

Cor. 10. As many words have complex ideas annexed to them, ſo ſentences, which are collections of words, have collections of complex ideas, *i. e.* have decomplex ideas. And it happens, in moſt caſes, that the decomplex idea belonging to any ſentence, is not compounded merely of the complex ideas belonging to the words of it; but that there are alſo many variations, ſome oppoſitions, and numberleſs additions. Thus propoſitions, in particular, excite, as ſoon as heard, aſſent or diſſent; which aſſent and diſſent conſiſt chiefly of additional complex ideas, not included in the terms of the propoſition. And it would be of the greateſt uſe, both in the ſciences and in common life, thoroughly to analyſe this matter, to ſhew in what manner, and by what ſteps, *i. e.* by what impreſſions and aſſociations, our aſſent and diſſent, both in ſcientifical and moral ſubjects, is formed.

PROP.

PROP. XIII.

When ſimple Ideas run into a complex one, according to the foregoing Propoſition, we are to ſuppoſe, that the ſimple miniature Vibrations correſponding to thoſe ſimple Ideas run, in like Manner, into a complex miniature Vibration, correſponding to the reſulting complex Idea.

THIS propoſition is analogous to the ninth and eleventh, and may be deduced from the laſt, as they are from the eighth and tenth reſpectively. It is alſo an evidence and illuſtration of the ſecond, ſhewing not only, that the ſtate of the medullary ſubſtance is changed, according to the ſeveral natures of the ideas which are preſented to the mind; but alſo ſhewing, in general, of what kind this change is, and in what manner it is effected.

PROP. XIV.

It is reaſonable to think, that ſome of the complex Vibrations attending upon complex Ideas, according to the laſt Propoſition, may be as vivid, as any of the ſenſory Vibrations excited by the direct Action of Objects.

FOR theſe complex vibrations may conſiſt of ſo many parts co-exiſtent and ſucceſſive, and theſe parts may ſo alter and exalt one another, as that the reſulting agitations in the medullary ſubſtance may no longer be miniature vibrations, but vivid ones, equal to thoſe excited by objects impreſſed on the ſenſes. This proceſs may be farther favoured by a mixture of vivid real impreſſions among the ideas, by the irritability of the medullary ſubſtance, by a previous diſpoſition to the vibrations to be excited, &c.

COR. 1. When the complex miniature vibrations are thus exalted in degree, we are to conceive, that the correſponding complex ideas are proportionally exalted, and ſo paſs into intellectual affections and paſſions. We are therefore to deduce the origin of the intellectual pleaſures and pains, which are the objects of theſe affections and paſſions, from the ſource here laid open.

COR. 2. Since the preſent propoſition unfolds the nature of the affections and will, in the ſame manner, and from the ſame principles, as the twelfth does that of ideas, intellect, memory, and fancy, it follows, that all theſe are of the ſame original and conſideration, and differ only in degree, or ſome accidental circumſtances. They are all deducible from the external impreſſions made upon the ſenſes, the veſtiges or ideas of theſe, and their mutual connections by means of aſſociation, taken together, and operating on one another.

COR. 3. It follows alſo from this propoſition, that the intellectual pleaſures and pains may be greater, equal, or leſs, than the ſenſible ones, according as each perſon unites

more or fewer, more vivid or more languid miniature vibrations, in the formation of his intellectual pleaſures and pains, &c.

Cor. 4. It is evident, that all the vibrations which belong to ideas, and intellectual affections, muſt reſide in the brain, or even in the moſt internal parts of it, not in the ſpinal marrow, or nerves. The brain is therefore the ſeat of the rational ſoul, *i. e.* of the ſoul, as far as it is influenced by reaſons and moral motives, even though we ſhould admit, that the ſpinal marrow and nerves are, in part, the ſenſorium, or the ſeat of the ſenſitive ſoul; which is ſome argument, that this ought not to be admitted, but that the ſenſorium, in men at leaſt, ought to be placed in the internal parts of the brain.

Cor. 5. It is of the utmoſt conſequence to morality and religion, that the affections and paſſions ſhould be analyſed into their ſimple compounding parts, by reverſing the ſteps of the aſſociations which concur to form them. For thus we may learn how to cheriſh and improve good ones, check and root out ſuch as are miſchievous and immoral, and how to ſuit our manner of life, in ſome tolerable meaſure, to our intellectual and religious wants. And as this holds, in reſpect of perſons of all ages, ſo it is particularly true, and worthy of conſideration, in reſpect of children and youth. The world is, indeed, ſufficiently ſtocked with general precepts for this purpoſe, grounded on experience; and whoſoever will follow theſe faithfully, may expect good general ſucceſs. However, the doctrine of aſſociation, when traced up to the firſt rudiments of underſtanding and affection, unfolds ſuch a ſcene as cannot fail both to inſtruct and alarm all ſuch as have any degree of intereſted concern for themſelves, or of a benevolent one for others. It ought to be added here, that the doctrine of aſſociation explains alſo the riſe and progreſs of thoſe voluntary and ſemivoluntary powers, which we exert over our ideas, affections, and bodily motions (as I ſhall ſhew hereafter, *prop.* 21.); and, by doing this, teaches us how to regulate and improve theſe powers.

Cor. 6. If beings of the ſame nature, but whoſe affections and paſſions are, at preſent, in different proportions to each other, be expoſed for an indefinite time to the ſame impreſſions and aſſociations, all their particular differences will, at laſt, be overruled, and they will become perfectly ſimilar, or even equal. They may alſo be made perfectly ſimilar, in a finite time, by a proper adjuſtment of the impreſſions and aſſociations.

Cor. 7. Our original bodily make, and the impreſſions and aſſociations which affect us in paſſing through life, are ſo much alike, and yet not the ſame, that there muſt be both a great general reſemblance amongſt mankind, in reſpect of their intellectual affections, and alſo many particular differences.

Cor. 8. Some degree of ſpirituality is the neceſſary conſequence of paſſing through life. The ſenſible pleaſures and pains muſt be transferred by aſſociation more and more every day, upon things that afford neither ſenſible pleaſure nor ſenſible pain in themſelves, and ſo beget the intellectual pleaſures and pains.

Cor.

Cor. 9. Let the letters *a*, *b*, *c*, *d*, *e*, &c. repreſent the ſenſible pleaſures; *x*, *y*, and *z*, the ſenſible pains, ſuppoſed to be only three in number; and let us ſuppoſe all theſe, both pleaſures and pains, to be equal to one another: if now the ideas of theſe ſenſible pleaſures and pains be aſſociated together, according to all the poſſible varieties, in order to form intellectual pleaſures and pains, it is plain, that pleaſure muſt prevail in all the combinations of ſeven or more letters; and alſo, that when the ſeveral parts of theſe complex pleaſures are ſufficiently united by aſſociation, the pains which enter their compoſition will no longer be diſtinguiſhed ſeparately, but the reſulting mixed and complex pleaſures appear to be pure and ſimple ones, equal in quantity to the exceſs of pleaſure above pain, in each combination. Thus aſſociation would convert a ſtate, in which pleaſure and pain were both perceived by turns, into one in which pure pleaſure alone would be perceived; at leaſt, would cauſe the beings who were under its influence to an indefinite degree, to approach to this laſt ſtate nearer than by any definite difference. Or, in other words, aſſociation, under the ſuppoſition of this corollary, has a tendency to reduce the ſtate of thoſe who have eaten of the tree of the knowledge of good and evil, back again to a paradiſiacal one. Now, though the circumſtances of mankind are not the ſame with thoſe ſuppoſed in this corollary, yet they bear a remarkable reſemblance thereto, during that part of our exiſtence which is expoſed to our obſervation. For our ſenſible pleaſures are far more numerous than our ſenſible pains; and though the pains be, in general, greater than the pleaſures, yet the ſum total of theſe ſeems to be greater than that of thoſe; whence the remainder, after the deſtruction of the pains by the oppoſite and equal pleaſures, will be pure pleaſure.

Cor. 10. The intellectual pleaſures and pains are as real as the ſenſible ones, being, as we have ſeen, nothing but the ſenſible ones variouſly mixed and compounded together. The intellectual pleaſures and pains are alſo all equally of a factitious and acquired nature. We muſt therefore eſtimate all our pleaſures equally, by their magnitude, permanency, and tendency to procure others; and our pains in like manner.

Cor. 11. The ſenſible pleaſures and pains have a greater tendency to deſtroy the body, than the intellectual ones; for they are of a particular local nature, and ſo bear hard upon the organs which convey them. But the deſtruction of any one conſiderable part of the body is the deſtruction of the whole, from the ſympathy of the parts; whereas the intellectual pleaſures and pains, being collected from all quarters, do not much injure any organ particularly, but rather bring on an equable gradual decay of the whole medullary ſubſtance, and all the parts thereon depending.

Cor. 12. This propoſition, and its corollaries, afford ſome pleaſing preſumptions; ſuch are, that we have a power of ſuiting our frame of mind to our circumſtances, of correcting what is amiſs, and improving what is right: that our ultimate happineſs appears to be of a ſpiritual, not corporeal nature; and therefore that death, or the ſhaking off the groſs body, may not ſtop our progreſs, but rather render us more

expedite in the purſuit of our true end: that aſſociation tends to make us all ultimately ſimilar; ſo that if one be happy, all muſt: and laſtly, that the ſame aſſociation may alſo be ſhewn to contribute to introduce pure ultimate ſpiritual happineſs, in all, by a direct argument, as well as by the juſt mentioned indirect one.

SECT. III.

OF MUSCULAR MOTION, AND ITS TWO KINDS, AUTOMATIC AND VOLUNTARY; AND OF THE USE OF THE DOCTRINES OF VIBRATIONS AND ASSOCIATION, FOR EXPLAINING THESE RESPECTIVELY.

PROP. XV.

It is probable, that muſcular Motion is performed in the ſame general Manner as Senſation, and the Perception of Ideas.

For, firſt, ſenſation, the perception of ideas, and a locomotive faculty, *i. e.* muſcular motion, are the three moſt eminent marks of diſtinction between the animal and vegetable world: therefore ſince it is already found, that the two firſt are performed by the ſame means, *i. e.* vibrations, there is ſome preſumption, that the laſt will not require a different one.

Secondly, Of the two ſorts of motion, viz. automatic and voluntary, the firſt depends upon ſenſation, the laſt upon ideas, as I ſhall ſhew particularly hereafter, and may appear, in general, to any one, upon a ſlight attention; whence it follows, that ſenſation, and automatic motion, muſt be performed in the ſame general manner, alſo the perception of ideas, and voluntary motion: and therefore, ſince ſenſation and perception, the two antecedents, agree in their cauſes, automatic and voluntary motion, the two conſequents, *i. e.* all the four, muſt likewiſe.

Thirdly, It appears from the firſt and ſecond propoſitions, that the white medullary ſubſtance is the common inſtrument of ſenſation, ideas, and motion; and by the fifth, that this ſubſtance is uniform and continuous every where. Hence it follows, that the ſubtle motions excited in the ſenſory nerves, and medullary ſubſtance of the brain, during ſenſation and intellectual perception, muſt, of whatever kind they be, paſs into the motory nerves; and when they are arrived there, it is probable, that they muſt cauſe the contraction of the muſcles, both becauſe otherwiſe their arrival at the motory nerves would be ſuperfluous, and becauſe ſome ſuch ſubtle motions are required for this purpoſe.

Cor. 1. All arguments therefore which prove the performance of ſenſation and intellectual perception, by means of vibrations of the ſmall medullary particles, muſt infer, that

that muſcular motion is performed by vibrations alſo. And converſely, if vibrations can be ſhewn to take place in muſcular motion, they muſt alſo be inſtrumental in ſenſation and intellectual perception.

Cor. 2. There are certain experiments and obſervations which favour the ſuppoſition of the performance of muſcular motion by ſubtle agitations in the ſmall particles of the muſcular fibres, *i. e.* by vibratory motions. It follows therefore, that theſe experiments and obſervations are ſome additional evidence for the exiſtence of ſenſory and ideal vibrations, as above explained. Such are, that the motion of the heart, and of other muſcles, may be renewed in dying animals, and thoſe that are newly dead, by heat, injection of a fluid, and punctures, it being eaſy to be conceived, that the two laſt cauſes ſhould put the particles of the fibres into agitations for a ſhort time, *i. e.* till they can recover their equilibrium, by altering their diſtances, and mutual actions: and the firſt cauſe, *i. e.* heat, is, by the common conſent of all, judged to conſiſt in, and to cauſe, ſubtle vibratory motions. It is alſo difficult to aſſign any other action which theſe cauſes can have. In like manner the alternate contractions and relaxations of the hearts of frogs, vipers, and ſome other animals, which continue for long ſpaces of time after theſe have been entirely ſeparated from their bodies, ſeem utterly inexplicable upon any of the common ſuppoſitions, but follow eaſily from the doctrine of vibrations, as it is applied to muſcular motion, in the two next propoſitions.

Cor. 3. Since the ſame motion which occaſions ſenſation, and intellectual perception, paſſes through the ſeats of theſe into the motory nerves, in order to excite there the automatic and voluntary motions, thus pervading the whole medullary ſubſtance, in various ways, according to the variety of the circumſtances, but in all with the greateſt preciſion and exactneſs, it follows, that this muſt be a vibratory one, and that of the moſt ſubtle kind. For the ſame exceſs of ſoftneſs, which renders the medullary ſubſtance totally inelaſtic as to ſenſe, and conſequently unfit for the groſſer vibrations of the particles of the firſt or largeſt order (by the vibrations of which, in ſonorous bodies, it ſeems, that ſound is excited in the air), may render it more ſuſceptible of vibrations, in the particles of the ſecond, third, &c. orders; and if we ſuppoſe a proper ultimate ſtructure in the ſeveral parts of the medullary ſubſtance, theſe vibrations may be conveyed with all that preciſion and variety which the phænomena require. And, unleſs we do ſuppoſe ſome ſuch ſubtle vibrations as theſe, it will be extremely difficult to conceive, how ſo ſoft a pulp as the medullary ſubſtance is, ſhould be the common inſtrument of ſenſation, thought, and motion; which yet all phyſicians and philoſophers muſt allow, according to the firſt and ſecond propoſitions. If we ſet aſide ſubtle vibratory motions, the impulſe of the objects of ſenſe can communicate nothing, as it ſeems, to ſo ſoft a ſubſtance, but an uniform preſſure, ſuſceptible of few or no modifications, and conſequently highly unſuitable to the great variety of the phænomena that are to be ſolved by it. This argument therefore tends to ſhew, that ſenſation, thought, and motion, muſt all be performed by vibrations.

PROP.

PROP. XVI.

The Phænomena of muſcular Contraction appear to be ſufficiently agreeable to the Doctrine of Vibrations.

In order to ſhew this, let us make the following ſuppoſitions:

Firſt, That vibrations deſcend along the motory nerves, *i. e.* the nerves which go to the muſcles, in ſome ſuch manner as ſound runs along the ſurfaces of rivers, or an electrical virtue along hempen ſtrings.

Secondly, That theſe vibrations, when they arrive at the muſcular fibres, are communicated to them, ſo that the ſmall particles of theſe fibres ſhall be agitated with like vibrations.

Thirdly, That the vibrations thus excited in the fibres, put into action an attractive virtue, perhaps of the electrical kind, which lies concealed in the particles of the fibres, or in the blood globules, or both. That the blood globules of animals are electrical, may be conjectured from the electricity of thoſe of the muſcle-ſhell fiſh, obſerved by Dr. *Hales*; and that the red blood has a principal ſhare in muſcular contraction, is highly probable, from the red colour of all the great muſcles of the body, and from the weakneſs of all young animals, and of ſuch as want a due ſhare of red blood. At the ſame time, it appears from exanguious and tranſparent animals, that pale fibres, and colourleſs fluids, have all the neceſſary requiſites for muſcular contraction, in certain degrees.

Fourthly, We muſt now ſuppoſe, in conſequence of the three foregoing ſuppoſitions, that each muſcular fibre, and conſequently the whole muſcle, is made ſhorter by this increaſe of attraction in its particles; whilſt yet their approach to each other is ſo ſmall, as that the whole bulk of the muſcle is but little diminiſhed; for though the length of the muſcle is leſſened, its other dimenſions are increaſed.

Fifthly, If we ſuppoſe the ſmall ultimate fibres of the muſcles to bend alternately to the right and left, as an eel does, at exceedingly ſhort intervals, agreeably to Dr. *Lower*, this may ſomewhat aſſiſt us to conceive in what manner a muſcle may be ſhortened, and yet ſo increaſed in breadth and thickneſs, as to remain of nearly the ſame dimenſions. For if theſe flexures be increaſed by the increaſe of the attraction of the parts, the whole muſcle will become ſhorter and thicker, as it is found to be in contraction; and converſely when the flexures are drawn out, the muſcle will be longer and thinner, *i. e.* in a ſtate of relaxation. The ſmall wrinkles which have been obſerved in the muſcular fibres, by *Leeuwenhoek*, and others, the wavings and curls which frequently appear to the eye in muſcles, after boiling or roaſting, and the rhomboidal pinnulæ taken notice of by Dr. *Hales* in the abdominal muſcles of a living frog, when under contraction, all ſeem to favour this fifth ſuppoſition.

Dr.

Dr. *Pemberton* conjectures, that the cauſe of the contraction of muſcular fibres is no other than the common cauſe of the coheſion of the ſmall particles of the muſcular fibres increaſed. And this ſeems very probable; for the muſcles are hard during contraction, ſoft during relaxation; and hardneſs and ſoftneſs are evidently nothing but variations in the coheſion of the ſmall particles of bodies. Neither is this conjecture at all repugnant to the ſuppoſition of an electrical attraction above made, or to the doctrine of vibrations; for electricity may reach to ſmall diſtances, without being excited by friction, and flow from the ſame principle as the coheſion of bodies, as Sir *Iſaac Newton* has obſerved. It may therefore be the general cauſe of coheſion, and may be excited in the muſcular fibres in an extraordinary degree, whenever extraordinary vibrations are communicated to them. Or, if we ſuppoſe the cauſe of coheſion to be ſomething diſtinct from electricity, it may, however, be increaſed by vibrations of the ſmall cohering particles.

PROP. XVII.

That Propenſity to alternate Contraction and Relaxation, which is obſerved in almoſt all the Muſcles of the Body, admits of a Solution from the Doctrine of Vibrations.

For, when the fibres are in a ſtate of contraction, they are hard; and this hardneſs, if it be ſuppoſed to extend to the ſmall particles (which is no unreaſonable ſuppoſition), muſt render the particles of theſe particles, *i. e.* the particles ſuppoſed in theſe propoſitions to be agitated with vibrations, indiſpoſed to receive theſe vibrations; but the free admiſſion of theſe vibrations is by ſuppoſition the cauſe which excites the attractions of the particles, and the conſequent contraction of the muſcle. It follows therefore, that the hardneſs which impedes theſe vibrations, muſt alſo leſſen the attraction and contraction; or, in other words, that the contraction of a muſcle, when carried to a certain degree, muſt check itſelf, and bring on a relaxation, after a time ſufficient for the proper cauſes to take effect.

In like manner, when a muſcle is relaxed, the vibrations which deſcend along the motory nerves, paſs freely into the muſcular fibres, increaſe the attractions of the particles, and bring on the oppoſite ſtate, that of contraction; and ſo on alternately.

The fibres of the relaxed muſcle may alſo be conſidered as under a ſtate of diſtention to a certain degree, and conſequently as liable to an increaſe of vibrations upon this account. To which we may farther add, that ſince vibrations are hindered from paſſing into the contracted muſcle, in the manner juſt now explained, they will paſs with greater force into the relaxed one, from the place of the common derivation of their nerves, wherever there are antagoniſt muſcles that derive nerves from the ſame trunk, as in the limbs, and muſcles of reſpiration.

Cor. It appears from this method of conſidering the contractions and relaxations of muſcles, that there is a certain degree of hardneſs or contraction in muſcular fibres, which

which may be ſuppoſed juſt to balance each degree of force with which vibrations deſcend into the muſcular fibres; and that, while this equilibrium ſubſiſts, the contraction can neither be increaſed nor abated.

PROP. XVIII.

The Vibrations, of which an Account has been given in this Chapter, may be ſuppoſed to afford a ſufficient Supply of motory Vibrations, for the Purpoſe of contracting the Muſcles.

In order to make this appear, it will be proper to diſtinguiſh the motory vibrations, or thoſe which deſcend along the nerves of the muſcles into their fibres, into the five following claſſes:

Firſt then, we are to conceive, that thoſe ſenſory vibrations which are excited in the external organs, and aſcend towards the brain, when they arrive, in their aſcent, at the origins of motory nerves, as they ariſe from the ſame common trunk, plexus, or ganglion, with the ſenſory ones affected, detach a part of themſelves at each of theſe origins down the motory nerves; which part, by agitating the ſmall particles of the muſcular fibres, in the manner explained in the ſixteenth propoſition, excites them to contraction.

Secondly, The remainder of the ſenſory vibrations, which arrives at the brain, not being detached down the motory nerves in its aſcent thither, muſt be diffuſed over the whole medullary ſubſtance. It will therefore deſcend from the brain into the whole ſyſtem of motory nerves, and excite ſome feeble vibrations, at leaſt, in them. The ſame may be obſerved of ideal vibrations generated in the brain by aſſociation; theſe muſt pervade the whole medullary ſubſtance, and conſequently affect all the motory nerves in ſome degree.

Thirdly, The heat of the blood, and pulſation of the arteries, which paſs through the medullary ſubſtance, muſt always excite, or keep up, ſome vibrations in it; and theſe muſt always deſcend into the whole ſyſtem of muſcles. And I apprehend, that from theſe two laſt ſources, taken together, we may account for that moderate degree of contraction, or tendency thereto, which is obſervable in all the muſcles, at leaſt in all thoſe of healthy adults, during vigilance.

Fourthly, When vivid vibrations are excited in membranes of an uniform texture, by a ſtimulus of any kind, they ſeem to run over the whole extent of ſuch membranes, and by this means to have a great influence in contracting all the muſcles that lie near any part of this membrane, though they be remote from the place of the ſtimulus. The manner in which this is effected, I conceive to be as follows: the repeated or continued action of the ſtimulus diffuſes vibrations from the place of its action over the whole membrane, which, by their reciprocal influences, become equal, or nearly ſo, in every part of it, and are, at laſt, ſo exalted, as to contract every part. As ſoon as this

contraction

contraction takes place, the vibrations in its ſmall particles muſt ceaſe for reaſons given above. They will therefore be propagated almoſt inſtantaneouſly over the neighbouring muſcles, from the nervous communications between the membrane and the neighbouring muſcles; by which all changes made in the nerves of the membrane muſt affect thoſe of the neighbouring muſcles. As therefore during the vivid vibrations of the particles of the membrane, we muſt ſuppoſe ſome to be propagated into the neighbouring muſcles, agreeably to the firſt article of this propoſition, ſo, upon their ſudden ceſſation, ſuch a change may reaſonably be ſuppoſed, in the communicating nervous fibrils, as ſhall agitate the æther contained in them with much more vivid vibrations than before, and theſe vibrations muſt now paſs into the muſcles alone, ſince the contraction of the membrane hinders them from returning into it. I ſhall hereafter produce ſeveral examples of this proceſs, in detail. It may ſuffice, at preſent, juſt to mention the action of ſneezing, and to deſire the reader to compare this action, in a curſory way, with the foregoing account.

Fifthly, I have, in the laſt article, ſhewn how a ceſſation of vibrations in the particles of a membrane, may increaſe thoſe in the neighbouring muſcles. But it ſeems alſo, that a ceſſation of vibrations in any other conſiderable part of the body, from whatever cauſe it proceeds, has a like tendency; and that this tendency is deducible from the change made in the nerves of the part affected, and thence propagated into the communicating branches, or even into the whole medullary ſubſtance. The yawnings and ſtretchings of perſons diſpoſed to ſleep, the convulſive reſpiration of thoſe that are juſt fallen aſleep, and the convulſive motions which attend the extinction of the ſenſes in epileptic fits, and the near approaches of death, may be derived, perhaps, in part, from this ſource, in part from ſome of the foregoing.

PROP. XIX.

The automatic Motion ſeem to admit of a commodious Explanation, from the three laſt Propoſitions taken together.

THE particular detail of this obſcure and intricate matter will be attempted in the proper places of the next chapter, which will contain the application of the general poſitions concerning ſenſation and motion, in this, to each of the moſt remarkable phænomena conſidered ſeparately. I will, however, preſent the reader here with a ſhort ſketch, to enable him to form ſome notion of the manner and plauſibility of the attempt.

The ordinary motions of the heart appear to ariſe from the ſecond and third claſſes of motory vibrations, mentioned in the laſt propoſition; and it is remarkable, that its motions are found to be, in general, and *cæteris paribus*, ſtronger or weaker, as the ſum total of theſe two claſſes is greater or leſs. The ſyſtole and diaſtole ſucceed each

other, from the cauſes aſſigned in the ſeventeenth propoſition. We are to conceive, however, that both the influx of the venal blood into the ventricles, and of the arterial into the coronary veſſels, have a conſiderable ſhare in bringing on the ſyſtole, in the way of diſtention and irritation.

May we not conjecture, from that experiment of Dr. *Hook*'s, in which he kept a dog alive, by a mere continued ſtream of freſh air paſſing through the lungs, without any ſuch alternate motion of the cheſt as takes place in common reſpiration, that one principal uſe of the air, which is an electric *per ſe*, in reſpiration, is to reſtore to the blood, as it paſſes through the lungs, that electricity which it has loſt in circulating through the body? For, upon this ſuppoſition, the blood which arrives at the left ventricle, will, in ceſſations of reſpiration, and alſo where foul air is reſpired, want its due electricity; whence, according to *prop.* 16. the muſcles, and eſpecially the heart, will want one of the principal requiſites for contraction. However, convulſive motions may enſue after a ſyncope, from the fifth claſs of motory vibrations.

It is remarkable here, that the hearts of frogs, vipers, and ſeveral other ſuch animals, as can live in great degrees of cold, and without reſpiration, continue to beat, as has been taken notice of above, for a long time after they are taken out of their bodies. We muſt therefore ſuppoſe, that the fibres of their hearts, and the blood globules which remain in them, are endued with an electric, or other attractive virtue, of a more durable kind than the fibres and blood globules of the more perfect animals; alſo, that this virtue may be put into action by a leſs degree of heat. All which is very agreeable to the other circumſtances of their œconomy.

Reſpiration and crying are excited in the new-born child from the cold, handling of the midwife, and other vivid ſenſations impreſſed immediately upon its coming into the world. Theſe vivid ſenſations put the whole ſyſtem of muſcles, or at leaſt thoſe of the trunk and larynx, into action at once, as far as their mutual antagoniſm will permit, the ſtronger ſet of conſpiring muſcles over-powering the weaker for a certain ſhort time, and then after their force is exhauſted, according to *prop.* 17. giving way for a ſhorter time to the weaker. But this alternate action of the muſcles of the trunk and larynx will be an imperfect kind of reſpiration, with crying, as may be eaſily ſeen from the diſpoſition of the muſcles. Reſpiration is afterwards kept up, partly by the propenſity of the muſcles to alternate action, explained *prop.* 17. partly, perhaps, by the power of habit, *i. e.* aſſociation; partly by the renewal of vivid impreſſions; and partly, as it ſeems, by vibrations excited in the pleura and peritonæum, and thence communicated to the diaphragm, and to the muſcles of the breaſt and belly.

That the laſt cauſe has a real efficacy, may appear from the following inſtance. Let reſpiration be ſuppoſed to be at a ſtand for a ſmall time, on account of the perſon's running, or exerting an act of great ſtrength. It is evident, that the blood will both be accumulated in the lungs, and heated there, during this interruption of reſpiration, ſince reſpiration both ventilates the blood, and promotes its motion through the lungs.

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The external membrane of the lungs will therefore be both diſtended and heated, *i. e.* will have an increaſe of vibrations communicated to it. But this membrane is continuous to the pleura, and, indeed, is the ſame membrane with it. An increaſe of vibrations will therefore be communicated to the pleura, and conſequently to the diaphragm, and muſcles of the breaſt, which it inveſts.

The periſtaltic motion of the inteſtines is, in part, to be deduced from the ſecond and third claſſes of motory vibrations, in the ſame manner as the motion of the heart, ſince that motion, like this, returns at intervals inceſſantly. And there is reaſon to believe, that vigorous vibrations, either of the ſenſory or ideal kind, impart an extraordinary degree of activity to the ſtomach and bowels. However, they derive alſo a great part of their motions, probably the major-part, from the impreſſions which the aliment, bile, and fæces, make upon the villous coat, the vibrations excited by theſe impreſſions both running directly into the muſcular coat, for the purpoſe of contracting that part which adjoins to the ſeat of impreſſion, and alſo running upwards and downwards along the villous coat, ſo as to exert ſome efficacy at a diſtance from this ſeat.

It is very remarkable that the pale fibres of the inteſtines, in men, and many other animals, preſerve their power of alternate contraction and relaxation for a conſiderable time after death, whereas the red fleſhy muſcles of the ſame animals loſe theirs ſoon after the effuſion of their blood. It is a phænomenon of a like kind with this, that the whole muſcular ſyſtem of ſome animals, that are exanguious, or nearly ſo, retain their activity for a conſiderable time after theſe animals are cut into pieces. And both may ſerve to intimate, that the electricity, or other attractive virtue, of pale fibres and fluids, at the ſame time that it is feebler than that of red ones, is, however, of a more durable kind, and, as was obſerved above of the hearts of frogs and vipers, capable of being put into action by a leſs degree of heat.

The actions of ſneezing, ſwallowing, coughing, hiccoughing, vomiting, and expelling the fæces and urine, with others of a like nature, are to be deduced from the firſt and fourth claſſes of motory vibrations, *i. e.* either from thoſe vibrations which firſt aſcend up the ſenſory nerves, and then are detached down the motory nerves, which communicate with theſe by ſome common trunk, plexus, or ganglion, or elſe from thoſe vibrations that run along the ſurfaces of uniform membranes, and ſo affect all the muſcles which lie contiguous to any part of theſe membranes. It is a ſtrong argument in favour of the hypotheſis here delivered, that all the above-mentioned motions ariſe in the neighbourhood of vivid ſenſations, increaſe when they increaſe, and languiſh when they languiſh.

In examining this hypotheſis by the actions of ſneezing, ſwallowing, and coughing, regard muſt be had to the noſe, uvula, and epiglottis, reſpectively, as being extreme and pointed parts, and conſequently liable to be affected with extraordinary vibrations, agreeably to the ninth phænomenon of the ſixth propoſition.

In like manner, the numerous plexuſes and ganglions of the eighth pair of nerves and intercoſtal nerve muſt have great influence in the motions and functions of the parts contained in the thorax and belly.

As the motory vibrations of the ſecond and third claſſes are of a gentle kind, for the moſt part, and deſcend conſtantly into the whole ſyſtem of the muſcles, it may be expected, that young children ſhould move all their limbs at times, with ſome irregular kind of ſucceſſion, from this cauſe. And this ſeems to be the fact. Strong contractions of the limbs are often excited by frictions, gripes, and other vivid ſenſations; but then the motory vibrations here are thoſe of the firſt and fourth claſſes. General convulſions, from acidities, and other irritations in the bowels, ſeem to be excited in the ſame way, the intercoſtal nerve ſerving to communicate the vibrations with more readineſs to the muſcles of the trunk and limbs.

It appears to me alſo, that the intercoſtal nerve, which makes thoſe of each ſide a ſeparate ſyſtem, as it were, has ſome ſhare in determining hemiplegias to one ſide. In like manner, the great brachial and crural ganglions make all the nerves of the ſame limb ſympathize with one another.

Whether the nerves of the ſame names throughout the body have not ſome ſympathetic influences over each other, may be doubted. If thoſe of the right ſide ariſe from the left part of the brain, and *vice verſâ*, which ſeems to be the opinion of the beſt anatomiſts, then one would imagine, that the homonymous nerves of the right and left ſides muſt, in croſſing over, lie ſomewhere contiguous to each other, and ſo impart vibrations to each other. And there ſeem to be ſome facts from whence this may be inferred; but we cannot expect to be able to diſtinguiſh, with certainty, ſo feeble an influence, amidſt ſo many others that are far ſtronger.

Yawning and ſtretching may, perhaps, when conſidered in all their circumſtances, take in all the five claſſes of motory vibrations. When they happen in the attacks of fever-fits, and other morbid caſes, the firſt ſeems to be owing to pretty ſudden and ſtrong contractions in the membrane of the mouth, fauces, aſpera arteria, and oeſophagus; the laſt to contractions in the whole ſkin.

As the bowels derive their periſtaltic motion, in part, from the ſecond and third claſſes, ſo it ſeems, that the ſecretory and excretory veſſels of the glands muſt be conſtantly agitated with a like motion, from the ſame cauſes, performing their ordinary ſecretions and excretions thereby. Their extraordinary ones are generally owing to irritations in the membranes, in which the mouths of their excretory veſſels lie. And this agrees remarkably with the doctrine of vibrations. For the vivid vibrations excited in the membranes by the irritating cauſe muſt diffuſe themſelves every way; and when they come to the mouths of the excretory veſſels, penetrate them, and, by paſſing up into the veſſels, both excretory and ſecretory, greatly increaſe their periſtaltic motion, and, by conſequence, their ſecretions and excretions. All this ſeems equally to hold, in reſpect of the exhaling and abſorbing veſſels diſperſed throughout the body.

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The external motions of the eyes in young children are probably owing, in part at leaſt, to the immediate action of light upon the tendinous expanſions of the four ſtrait muſcles, and particularly upon thoſe of the *adducens* and *abducens*. But the light which paſſes through the pupil ſeems alſo to have ſome ſhare, as will be ſhewn hereafter. As to the internal motions, it appears, that the light which falls upon the *cornea* and *uvea* muſt excite the greater and leſſer rings to contraction, in proportion to its ſtrength, and conſequently prepare the eye to ſee diſtinctly, at different diſtances, in the manner explained by Dr. *Jurin*. The hypotheſis of this propoſition does therefore give and receive light from his ingenious theory of this matter.

The two muſcles which relax the *membrana tympani*, are much more expoſed to the air than the *muſculus internus*, or the *muſculus ſtapedis*. When therefore the air is agitated with ſtrong vibrations, as in loud ſounds, it will excite the firſt named muſcles to action, and conſequently relax the *membrana tympani*, as it ought to do. For what reaſons the laſt named muſcles are contracted in feeble ſounds, is a queſtion of a more difficult nature, as is the parallel one in the eye, viz. why the radiated fibres of the *uvea* are contracted in ſmall degrees of light, ſo as then to dilate the pupil.

The reader is deſired to take notice, that, in all the inſtances of this propoſition, I conſider the motions as merely automatic. Their voluntary and ſemivoluntary ſtate will be accounted for in the two next propoſitions.

PROP. XX.

All that has been delivered above, concerning the Derivation of ideal Vibratiuncles from ſenſory Vibrations, and concerning their Aſſociations, may be fitly applied to motory Vibrations and Vibratiuncles.

This propoſition is the immediate conſequence of admitting the doctrines of vibrations and aſſociation, in the manner in which they have been aſſerted in the foregoing propoſitions. It contains the theory of the voluntary and ſemivoluntary motions; to facilitate the application of which theory in the next propoſition, I ſhall deliver the principal caſes of this, in the following corollaries.

Cor. 1. The motory vibrations of the five claſſes mentioned *prop.* 18. will generate a propenſity to correſponding motory vibratiuncles.

Cor. 2. Theſe motory vibratiuncles will affect the brain, as well as the motory nerves along which they deſcend; and, indeed, their deſcent along the motory nerves will be principally owing to their being firſt excited in the brain. This is ſufficiently evident in the motory vibratiuncles which are derived from the motory vibrations of the ſecond and third claſſes. As to the motory vibrations of the other claſſes, it is evident, that the brain is ſtrongly affected by the ſenſory vibrations which give birth to them, and conſequently

conſequently, that a proportional affection of the brain muſt take place in the motory vibratiuncles derived from them.

Cor. 3. The motory vibratiuncles will cohere to one another, by aſſociations both ſynchronous and ſucceſſive. Hence the ſimple parts, of which complex and decomplex motions are compounded, may cohere cloſely, and ſucceed readily to each other.

Cor. 4. The motory vibratiuncles will alſo cohere to ideal ones by aſſociation. Common ideas may therefore excite motory vibratiuncles, and conſequently be able to contract the muſcles, provided the active powers lodged in their fibres and blood globules be ſufficiently exalted for this purpoſe.

Cor. 5. If we ſuppoſe the ideal vibratiuncles to be ſo much increaſed, from the cauſes mentioned *prop.* 14. as to be equal in ſtrength to the uſual ſenſory vibrations, the motory vibratiuncles connected with them by aſſociation muſt be ſuppoſed to be increaſed proportionably. Hence ideas may occaſion muſcular motions of the ſame ſtrength with the automatic motions.

Cor. 6. The third and laſt connection of the motory vibratiuncles is that with ſenſory vibrations, foreign to them, *i. e.* ſuch as had no ſhare in generating the motory vibratiuncles under conſideration. Particular motions of the body may therefore by aſſociation be made to depend upon ſenſations, with which they have no natural and original connection.

Cor. 7. As muſcular motion has three connections deducible from aſſociation, viz. thoſe mentioned in the third, fourth, and ſixth corollaries, ſo the ſenſations and ideas have the ſame three connections. Hence the whole doctrine of aſſociation may be compriſed in the following theorem, viz.

If any ſenſation A, *idea* B, *or muſcular motion* C, *be aſſociated for a ſufficient number of times with any other ſenſation* D, *idea* E, *or muſcular motion* F, *it will, at laſt, excite* d, *the ſimple idea belonging to the ſenſation* D, *the very idea* E, *or the very muſcular motion* F.

The reader will obſerve, that aſſociation cannot excite the real ſenſation *D*, becauſe the impreſſion of the ſenſible object is neceſſary for this purpoſe. However, in certain morbid caſes, the idea is magnified ſo as to equal, or even over-power, ſenſible impreſſions.

PROP. XXI.

The voluntary and ſemivoluntary Motions are deducible from Aſſociation, in the Manner laid down in the laſt Propoſition.

In order to verify this propoſition, it is neceſſary to inquire, what connections each automatic motion has gained by aſſociation with other motions, with ideas, or with foreign ſenſations, according to the third, fourth, and ſixth corollaries of the laſt propoſition, ſo as to depend upon them, *i. e.* ſo as to be excited no longer, in the automatic manner deſcribed in the nineteenth propoſition, but merely by the previous introduction

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of the aſſociated motion, idea, or ſenſation. If it follows that idea, or ſtate of mind (*i. e.* ſet of compound vibratiuncles), which we term the will, directly, and without our perceiving the intervention of any other idea, or of any ſenſation or motion, it may be called voluntary, in the higheſt ſenſe of this word. If the intervention of other ideas, or of ſenſations and motions (all which we are to ſuppoſe to follow the will directly), be neceſſary, it is imperfectly voluntary; yet ſtill it will be called voluntary, in the language of mankind, if it follow certainly and readily upon the intervention of a ſingle ſenſation, idea, or motion, excited by the power of the will: but if more than one of theſe be required, or if the motion do not follow with certainty and facility, it is to be eſteemed leſs and leſs voluntary, ſemivoluntary, or ſcarce voluntary at all, agreeably to the circumſtances. Now, if it be found, upon a careful and impartial inquiry, that the motions which occur every day in common life, and which follow the idea called the will, immediately or mediately, perfectly or imperfectly, do this, in proportion to the number and degree of ſtrength in the aſſociations, this will be ſufficient authority for aſcribing all which we call voluntary in actions to aſſociation, agreeably to the purport of this propoſition. And this, I think, may be verified from facts, as far as it is reaſonable to expect, in a ſubject of inquiry ſo novel and intricate.

In the ſame manner as any action may be rendered voluntary, the ceſſation from any, or a forcible reſtraint upon any, may be alſo, viz. by proper aſſociations with the feeble vibrations in which inactivity conſiſts, or with the ſtrong action of the antagoniſt muſcles.

After the actions, which are moſt perfectly voluntary, have been rendered ſo by one ſet of aſſociations, they may, by another, be made to depend upon the moſt diminutive ſenſations, ideas, and motions, ſuch as the mind ſcarce regards, or is conſcious of; and which therefore it can ſcarce recollect the moment after the action is over. Hence it follows, that aſſociation not only converts automatic actions into voluntary, but voluntary ones into automatic. For theſe actions, of which the mind is ſcarce conſcious, and which follow mechanically, as it were, ſome precedent diminutive ſenſation, idea, or motion, and without any effort of the mind, are rather to be aſcribed to the body than the mind, *i. e.* are to be referred to the head of automatic motions. I ſhall call them automatic motions of the ſecondary kind, to diſtinguiſh them both from thoſe which are originally automatic, and from the voluntary ones; and ſhall now give a few inſtances of this double tranſmutation of motions, viz. of automatic into voluntary, and of voluntary into automatic.

The fingers of young children bend upon almoſt every impreſſion which is made upon the palm of the hand, thus performing the action of graſping, in the original automatic manner. After a ſufficient repetition of the motory vibrations which concur in this action, their vibratiuncles are generated, and aſſociated ſtrongly with other vibrations or vibratiuncles, the moſt common of which, I ſuppoſe, are thoſe excited by the ſight of a favourite play thing which the child uſes to graſp, and hold in his hand.

hand. He ought, therefore, according to the doctrine of aſſociation, to perform and repeat the action of graſping, upon having ſuch a play thing preſented to his ſight. But it is a known fact, that children do this. By purſuing the ſame method of reaſoning, we may ſee how, after a ſufficient repetition of the proper aſſociations, the ſound of the words *graſp*, *take hold*, &c. the ſight of the nurſe's hand in a ſtate of contraction, the idea of a hand, and particularly of the child's own hand, in that ſtate, and innumerable other aſſociated circumſtances, *i. e.* ſenſations, ideas, and motions, will put the child upon graſping, till, at laſt, that idea, or ſtate of mind which we may call the will to graſp, is generated, and ſufficiently aſſociated with the action to produce it inſtantaneouſly. It is therefore perfectly voluntary in this caſe; and, by the innumerable repetitions of it in this perfectly voluntary ſtate, it comes, at laſt, to obtain a ſufficient connection with ſo many diminutive ſenſations, ideas, and motions, as to follow them in the ſame manner as originally automatic actions do the correſponding ſenſations, and conſequently to be automatic ſecondarily. And, in the ſame manner, may all the actions performed with the hands be explained, all thoſe that are very familiar in life paſſing from the original automatic ſtate through the ſeveral degrees of voluntarineſs till they become perfectly voluntary, and then repaſſing through the ſame degrees in an inverted order, till they become ſecondarily automatic on many occaſions, though ſtill perfectly voluntary on ſome, *viz.* whenſoever an expreſs act of the will is exerted.

I will, in the next place, give a ſhort account of the manner in which we learn to ſpeak, as it may be deduced from the foregoing propoſition. The new-born child is not able to produce a ſound at all, unleſs the muſcles of the trunk and larynx be ſtimulated thereto by the impreſſion of pain on ſome part of the body. As the child advances in age, the frequent returns of this action facilitate it; ſo that it recurs from leſs and leſs pains, from pleaſures, from mere ſenſations, and laſtly, from ſlight aſſociated circumſtances, in the manner already explained. About the ſame time that this proceſs is thus far advanced, the muſcles of ſpeech act occaſionally, in various combinations, according to the aſſociations of the motory vibratiuncles with each other. Suppoſe now the muſcles of ſpeech to act in theſe combinations at the ſame time that ſound is produced from ſome agreeable impreſſion, a mere ſenſation, or a ſlight aſſociated cauſe, which muſt be ſuppoſed to be often the caſe, ſince it is ſo obſervable, that young children, when in a ſtate of health and pleaſure, exert a variety of actions at the ſame time. It is evident, that an articulate ſound, or one approaching thereto, will ſometimes be produced by this conjoint action of the muſcles of the trunk, larynx, tongue, and lips; and that both theſe articulate ſounds, and inarticulate ones, will often recur, from the recurrence of the ſame accidental cauſes. After they have recurred a ſufficient number of times, the impreſſion which theſe ſounds, articulate and inarticulate, make upon the ear, will become an aſſociated circumſtance (for the child always hears himſelf ſpeak, at the ſame time that he exerts the action) ſufficient to produce a repetition of them.

them. And thus it is, that children repeat the ſame ſounds over and over again, for many ſucceſſions, the impreſſion of the laſt ſound upon the ear exciting a freſh one, and ſo on, till the organs be tired. It follows therefore, that if any of the attendants make any of the ſounds familiar to the child, he will be excited from this impreſſion, conſidered as an aſſociated circumſtance, to return it. But the attendants make articulate ſounds chiefly; there will therefore be a conſiderable balance in favour of ſuch, and that of a growing nature: ſo that the child's articulate ſounds will be more and more frequent every day—his inarticulate ones grow into diſuſe. Suppoſe now, that he compounds theſe ſimple articulate ſounds, making complex ones, which approach to familiar words at ſome times, at others ſuch as are quite foreign to the words of his native language, and that the firſt get an ever-growing balance in their favour, from the cauſe juſt now taken notice of; alſo, that they are aſſociated with viſible objects, actions, &c. and it will be eaſily ſeen, that the young child ought, from the nature of aſſociation, to learn to ſpeak much in the ſame manner as he is found in fact to do. Speech will alſo become a perfectly voluntary action, *i. e.* the child will be able to utter any word or ſentence propoſed to him by others, or by himſelf, from a mere exertion of the will, as much as to graſp: only here the introductory circumſtance, viz. the impreſſion of the ſound on the ear, the idea of this ſound, or the preceding motion in pronouncing the preceding word, is evident; and therefore makes it probable, that the ſame thing takes place in other caſes. In like manner, ſpeech, after it has been voluntary for a due time, will become ſecondarily automatic, *i. e.* will follow aſſociated circumſtances, without any expreſs exertion of the will.

From the account here given of the actions of handling and ſpeaking, we may underſtand in what manner the firſt rudiments are laid of that faculty of imitation, which is ſo obſervable in young children. They ſee the actions of their own hands, and hear themſelves pronounce. Hence the impreſſions made by themſelves on their own eyes and ears become aſſociated circumſtances, and conſequently muſt, in due time, excite to the repetition of the actions. Hence like impreſſions made on their eyes and ears by others, will have the ſame effect; or, in other words, they will learn to imitate the actions which they ſee, and the ſounds which they hear.

In the ſame manner may be explained the evident powers which the will has over the actions of ſwallowing, breathing, coughing, and expelling the urine and fæces, as well as the feeble and imperfect ones over ſneezing, hiccoughing, and vomiting. As to the motion of the heart, and periſtaltic motion of the bowels, ſince they are conſtant, they muſt be equally aſſociated with every thing, *i. e.* peculiarly ſo with nothing, a few extraordinary caſes excepted. They will therefore continue to move ſolely in the original automatic manner, during the whole courſe of our lives. However, aſſociation may, perhaps, have ſome ſhare in keeping theſe motions, and that of reſpiration, up for a time, when the uſual automatic cauſes are deficient in any meaſure; and may thus contribute to their equability and conſtancy. It ſeems certain, at leaſt, that where

unequable and irregular motions of the heart and bowels are generated, and made to recur for a ſufficient number of times, from their peculiar cauſes, in full quantity, a leſs degree of the ſame cauſes, or even an aſſociated circumſtance, will ſuffice to introduce them afterwards. And the ſame thing may be obſerved of hyſteric and epileptic fits. Theſe recur from leſs and leſs cauſes perpetually, in the ſame manner, and for the ſame reaſons, as original automatic motions are converted into voluntary ones.

I will add one inſtance more of the tranſition of voluntary actions into automatic ones of the ſecondary kind, in order to make that proceſs clearer, by having it ſingly in view. Suppoſe a perſon who has a perfectly voluntary command over his fingers, to begin to learn to play upon the harpſicord: the firſt ſtep is to move his fingers from key to key, with a ſlow motion, looking at the notes, and exerting an expreſs act of volition in every motion. By degrees the motions cling to one another, and to the impreſſions of the notes, in the way of aſſociation ſo often mentioned, the acts of volition growing leſs and leſs expreſs all the time, till at laſt they become evaneſcent and imperceptible. For an expert performer will play from notes, or ideas laid up in the memory, or from the connection of the ſeveral complex parts of the decomplex motions, ſome or all; and, at the ſame time, carry on a quite different train of thoughts in his mind, or even hold a converſation with another. Whence we may conclude, that the paſſage from the ſenſory, ideal, or motory vibrations which precede, to thoſe motory ones which follow, is as ready and direct, as from the ſenſory vibrations to the original automatic motions correſponding to them; and conſequently, that there is no intervention of the idea, or ſtate of mind, called will. At leaſt, the doctrine of aſſociation favours this, and the fact ſhews, that there is no perceptible intervention, none of which we are conſcious.

And thus, from the preſent propoſition, and the nineteenth taken together, we are enabled to account for all the motions of the human body, upon principles which, though they may be fictitious, are, at leaſt, clear and intelligible. The doctrine of vibrations explains all the original automatic motions, that of aſſociation the voluntary and ſecondarily automatic ones. And, if the doctrine of aſſociation be founded in, and deducible from, that of vibrations, in the manner delivered above, then all the ſenſations, ideas, and motions, of all animals, will be conducted according to the vibrations of the ſmall medullary particles. Let the reader examine this hypotheſis by the facts, and judge for himſelf. There are innumerable things, which, when properly diſcuſſed, will be ſufficient teſts of it. It will be neceſſary, in examining the motions, carefully to diſtinguiſh the automatic ſtate from the voluntary one, and to remember, that the firſt is not to be found pure, except in the motions of the new-born infant, or ſuch as are excited by ſome violent irritation or pain.

Cor. 1. The brain, not the ſpinal marrow, or nerves, is the ſeat of the ſoul, as far as it preſides over the voluntary motions. For, by *Cor.* 2. of the laſt *Propoſition*, the efficacy

efficacy of the motory vibratiuncles depends chiefly on that part of them which is excited within the brain.

Cor. 2. The hypotheſis here propoſed is diametrically oppoſite to that of *Stahl*, and his followers. They ſuppoſe all animal motions to be voluntary in their original ſtate, whereas this hypotheſis ſuppoſes them all to be automatic at firſt, *i. e.* involuntary, and to become voluntary afterwards by degrees. However, the *Stahlians* agree with me concerning the near relation of theſe two ſorts of motion to each other, as alſo concerning the tranſition (or rather return, according to my hypotheſis) of voluntary motions into involuntary ones, or into thoſe which I call ſecondarily automatic. As to final cauſes, which are the chief ſubject of inquiry amongſt the *Stahlians*, they are, without doubt, every where conſulted, in the ſtructure and functions of the parts; they are alſo of great uſe for diſcovering the efficient ones. But then they ought not to be put in the place of the efficient ones; nor ſhould the ſearch after the efficient be baniſhed from the ſtudy of phyſic, ſince the power of the phyſician, ſuch as it is, extends to theſe alone. Not to mention, that the knowledge of the efficient cauſes is equally uſeful for diſcovering the final, as may appear from many parts of theſe obſervations.

Cor. 3. It may afford the reader ſome entertainment, to compare my hypotheſis with what *Des Cartes* and *Leibnitz* have advanced, concerning animal motion, and the connection between the ſoul and body. My general plan bears a near relation to theirs. And it ſeems not improbable to me, that *Des Cartes* might have had ſucceſs in the execution of his, as propoſed in the beginning of his Treatiſe on Man, had he been furniſhed with a proper aſſemblage of facts from anatomy, phyſiology, pathology, and philoſophy in general. Both *Leibnitz*'s Pre-eſtabliſhed Harmony, and *Malebranche*'s Syſtem of occaſional Cauſes, are free from that great difficulty of ſuppoſing, according to the ſcholaſtic ſyſtem, that the ſoul, an immaterial ſubſtance, exerts and receives a real phyſical influence upon and from the body, a material ſubſtance. And the reader may obſerve, that the hypotheſis here propoſed ſtands clear alſo of this difficulty. If he admits the ſimple caſe of the connection between the ſoul and body, in reſpect of ſenſation, as it is laid down in the firſt propoſition; and only ſuppoſes, that there is a change made in the medullary ſubſtance, proportional and correſpondent to every change in the ſenſations; the doctrine of vibrations, as here delivered, undertakes to account for all the reſt, the origin of our ideas and motions, and the manner in which both the ſenſations and theſe are performed.

Cor. 4. I will here add Sir *Iſaac Newton*'s words, concerning ſenſation and voluntary motion, as they occur at the end of his *Principia*, both becauſe they firſt led me into this hypotheſis, and becauſe they flow from it as a corollary. He affirms then, "both that all ſenſation is performed, and alſo the limbs of animals moved in a volun-" tary manner, by the power and actions of a certain very ſubtle ſpirit, *i. e.* by the " vibrations of this ſpirit, propagated through the ſolid capillaments of the nerves from " the external organs of the ſenſes to the brain, and from the brain into the muſcles."

Cor. 5. It follows from the account here given of the voluntary and ſemivoluntary motions, that we muſt get every day voluntary and ſemivoluntary powers, in reſpect of our ideas and affections. Now this conſequence of the doctrine of aſſociation is alſo agreeable to the fact. Thus we have a voluntary power of attending to an idea for a ſhort time, of recalling one, of recollecting a name, a fact, &c. a ſemivoluntary one of quickening or reſtraining affections already in motion, and a moſt perfectly voluntary one of exciting moral motives, by reading, reflection, &c.

PROP. XXII.

It follows, from the Hypotheſis here propoſed, concerning the voluntary Motions, that a Power of obtaining Pleaſure, and removing Pain, will be generated early in Children, and increaſe afterwards every Day.

For the motions which are previous and ſubſervient to the obtaining of pleaſure, and the removal of pain, will be much more frequent, from the very inſtant of birth, than thoſe which occaſion pain. The number alſo of the firſt will be perpetually increaſing, of the laſt decreaſing. Both which poſitions may be evinced by the following arguments.

Firſt, The pleaſures are much more numerous than the pains. Hence the motions which are ſubſervient to them are much more numerous alſo.

Secondly, The aſſociated circumſtances of the pleaſures are many more in number than the pleaſures themſelves. But theſe circumſtances, after a ſufficient aſſociation, will be able to excite the motions ſubſervient to the pleaſures, as well as theſe themſelves. And this will greatly augment the methods of obtaining pleaſure.

Thirdly, It favours the poſition here advanced, that the motions ſubſervient to pleaſure are of a moderate nature; and therefore, that they can be excited with the more eaſe, both in an automatic and voluntary manner.

Fourthly, The pains, and conſequently the motions ſubſervient to them, are few, and of a violent nature. Theſe motions are alſo various, and therefore cannot be united to objects and ideas with conſtancy and ſteadineſs; and, which is moſt to be regarded, they end, at laſt, from the very make of the body, in that ſpecies of motion which contributes moſt to remove or aſſuage the pain. This ſpecies therefore, ſince it recurs the moſt frequently, and continues longeſt, muſt be confirmed by aſſociation, to the excluſion of the reſt.

Cor. 1. Many changes in the actions of young children, very difficult to be explained, according to the uſual methods of conſidering human actions, appear to admit of a ſolution from this propoſition. Theſe changes are ſuch as tend to the eaſe, convenience, pleaſure, of the young child; and they are ſufficiently obſervable in the tranſition of the originally automatic actions into voluntary ones, as matters of fact, whatever

whatever be determined concerning their cauſe. I ſhall therefore refer to them occaſionally, in the courſe of theſe papers, as allowed matters of fact.

Cor. 2. It ſeems alſo, that many very complex propenſities and purſuits in adults, by which they ſeek their own pleaſure and happineſs, both explicitly and implicitly, may be accounted for, upon the ſame, or ſuch-like principles.

Cor. 3. To ſimilar cauſes we muſt alſo refer that propenſity to excite and cheriſh grateful ideas and affections, and trains of theſe, which is ſo obſervable in all mankind. However, this does not hold in ſo ſtrict a manner, but that ungrateful trains will preſent themſelves, and recur on many occaſions, and particularly whenever there is a morbid, and ſomewhat painful, ſtate of the medullary ſubſtance.

Cor. 4. Since God is the ſource of all good, and conſequently muſt at laſt appear to be ſo, *i. e.* be aſſociated with all our pleaſures, it ſeems to follow, even from this propoſition, that the idea of God, and of the ways by which his goodneſs and happineſs are made manifeſt, muſt, at laſt, take place of, and abſorb all other ideas, and HE himſelf become, according to the language of the ſcriptures, *all in all.*

Cor. 5. This propoſition, and its corollaries, afford ſome very general, and perhaps new, inſtances of the coincidence of efficient and final cauſes.

Cor. 6. The agreement of the doctrines of vibrations and aſſociation, both with each other, and with ſo great a variety of the phænomena of the body and mind, may be reckoned a ſtrong argument for their truth.

CHAP. II.

Containing the APPLICATION *of the* DOCTRINES *of* VIBRATIONS *and* ASSOCIATION *to each of the* SENSATIONS *and* MOTIONS, *in particular.*

SECT. I.

OF THE SENSE OF FEELING.

PROP. XXIII.

To diſtinguiſh the ſeveral Kinds of Feeling *from each other, and to aſſign the general Cauſes of the different Degrees of Exquiſiteneſs in this Senſe.*

HERE we may firſt diſtinguiſh, feeling into the general and particular.

The general feeling extends to all the parts of the body, external and internal: for they are all ſuſceptible of pain from wounds and inflammations, of being put into a pleaſurable ſtate, of numbneſs, and total want of ſenſation, and of perceiving heat, cold, and preſſure. Some writers conſider all the ſenſations of all the ſenſes as ſo many kinds of feeling; but I do not here uſe this word in ſo extenſive an acceptation.

The particular feeling is that more exquiſite degree which reſides in the inſides of the hands, and eſpecially in the ends of the fingers; and by which we diſtinguiſh the tangible qualities of bodies, viz. heat, cold, moiſture, dryneſs, ſoftneſs, hardneſs, ſmoothneſs, roughneſs, alſo their motion, reſt, diſtance, and figure, with more accuracy than by any other part. Theſe ſenſations are, for the moſt part, adiaphorous ones.

The greater exquiſiteneſs of the particular feeling ariſes probably from the following cauſes:

Firſt, The ſentient *papillæ* riſe high from the ſkin (becoming extreme parts thereby), and receive a large proportional quantity of nerves in the ends of the fingers.

Secondly, The ends of the fingers are themſelves extreme parts, and conſequently receive ſtronger agitations in their infiniteſimal medullary particles, from the ſtronger vibrations of the contiguous denſer æther. For we muſt ſuppoſe, that the vibrations of the rarer æther within the nerves extend themſelves a little way into the denſer ſurrounding æther, and even become ſtronger to a certain diſtance; after which they become weaker again, and are, at laſt, quite ſuppreſſed by the increaſe of denſity in the æther, and by their own diffuſion.

Thirdly, It is cuſtomary, in endeavouring to feel exquiſitely, to rub the ends of the fingers againſt the tangible object. Now this friction may, by exciting vibrations, and a conſequent contraction in certain muſcular fibrils belonging to the *papillæ*, diſtend and erect theſe, and thereby increaſe their ſenſibility.

Fourthly,

Fourthly, There is much here to be aſcribed to practice and habit, *i. e.* to aſſociation; and it is chiefly on this account, that the ſenſations of the ends of the fingers give us ſo much more preciſe information concerning the tangible qualities of bodies, than thoſe of the ends of the toes, ſince the ſtructure of the nervous *papillæ* is alike in both. It ought to be conſidered as a part of this reaſon, that, according to the principles laid down in the laſt chapter, we may get a voluntary power of erecting the *papillæ* without friction, or of increaſing and fixing the diſtention during friction, in order to feel with greater exquiſiteneſs and preciſion.

The ſenſe of feeling may alſo be diſtinguiſhed into that of the external ſurface of the body, and that of the cavities of the noſe, mouth, *fauces*, alimentary duct, *pelvis* of the kidneys, ureters, bladder of urine, gall-bladder, follicles and ducts of the glands, &c. The ſenſibility in the laſt is much greater than in the firſt, becauſe the impreſſions can more eaſily penetrate through the ſoft epithelium, with which the internal cavities are inveſted, than through the hard cuticle, becauſe the compact fibrous membrane of the true ſkin does not ſuffer the vibrations to paſs freely up the nerve through its own ſubſtance, but rather diffuſes them along its ſurface, and becauſe the moiſture of the epithelium diſſolves, and thereby renders active, all the ſaline particles, which touch the internal cavities. In the mouth and noſe this ſenſibility is ſo great, and attended with ſuch diſtinguiſhing circumſtances, as to have the names of taſte and ſmell aſſigned reſpectively to the ſenſations impreſſed upon the *papillæ* of theſe two organs. And as the ſenſations of the alimentary duct have a near relation to, and connection with, thoſe of the mouth, I ſhall refer them to the head of taſte. But the ſenſations of the other internal cavities may be comprehended more properly under feeling.

It ought alſo to be obſerved here, that the lips, nipples, and external parts of generation, have a more exquiſite ſenſibility, than the other external parts; partly from the ſtructure of their *papillæ*, and partly from the thinneſs of the cutis, and ſoftneſs and thinneſs of the cuticle. The extreme ſenſibility of the *cornea* and *tunica conjunctiva* of the eye may ariſe from the manner in which the nerves are here expoſed, and the tenſion of theſe parts.

PROP. XXIV.

To examine how far the Senſations of Heat and Cold are agreeable to the Doctrine of Vibrations.

A BODY is termed *hot*, when its heat exceeds that of the part, with which we touch it; cold, when its heat is leſs than this. The terms *hot* and *cold* are therefore relative ones, and the qualities denoted by them run into each other without any preciſe diſtinguiſhing limits. We may conſequently refer *cold* to *heat*, and, if we admit the doctrine of vibrations, we are to ſuppoſe, that the ſmall parts of all bodies are agitated by ſubtle vibrations; and that when theſe vibrations exceed thoſe of the part with which we touch them, they are called *warm* or *hot*; when they fall ſhort, *cold*.

This

This may be regarded as a groſs, general poſition, which preſents itſelf upon the firſt conſideration of this matter. But then, as, according to this definition of heat, all thoſe objects of taſte and ſmell, which excite ſtrong vibratory motions in the organs, ought to excite heat, we muſt inquire farther into the vibratory motions of bodies termed *hot* in common language, and into the difference between theſe and the vibrations excited in the nerves of taſte and ſmell by ſapid and odorous bodies.

I conjecture therefore, that the vibrations belonging to heat are in general quicker and ſhorter, than the peculiar ones excited by taſtes, ſmells, and colours; alſo that the laſt, or the vibrations of the rays of light, are quicker than thoſe of taſtes and ſmells. We may conceive farther, that all the vibrations of the ſmall particles of the medullary ſubſtance, and interjacent æther, from whatever cauſe they ariſe, grow quicker as they grow ſhorter, *i. e.* weaker; or, according to the conjecture juſt made, that in declining they tend to thoſe which impreſs the ſenſation of heat. For vibratory motions of different lengths can be iſochronous only according to one law, viz. that of the accelerating force being in the ſimple proportion of the diſtance from the middle point of the vibration, as when a heavy body vibrates in a cycloid; whereas, if the accelerating force be in any leſs ratio than this, ſhort vibrations will be quicker than long ones. Laſtly, we are to conceive, that when two vibrations of different kinds, or frequences, are impreſſed at the ſame time, they muſt reduce one another to ſome ſingle intermediate one, unleſs the quicker be ſo much more numerous than the ſlower, as to be comprehended within them, ſo that both may be performed together without oppoſition or confuſion.

Let us now inquire how far the ſeveral effects of heat and cold upon our bodies are agreeable either to the notion of vibrations in general, or to the particular conjectures of the laſt paragraph.

Firſt, then, We may expect that heat will rarefy the ſolids and fluids of the body, and the laſt more than the firſt, which is agreeable to experience. For the increaſe of the agitations will make the ſmall particles recede from one another, and that more in fluid than in ſolid parts, becauſe of their looſer texture. There may be other reaſons alſo, drawn from the particular unknown compoſition of each part, ſolid and fluid, which may ſubject them to greater or leſs rarefaction. Thus I conjecture, that the red blood is more apt to be rarefied than the other fluids, and that it is by this means made a chief inſtrument in compreſſing the white medullary ſubſtance of the brain, and ſpinal marrow, in natural and morbid ſleep, to both which heat contributes, as has been obſerved already.

Secondly, If heat be cauſed by vibrations, we may expect, that thoſe propagated from the hot or cold body ſhould diffuſe themſelves freely and inſtantaneouſly over the whole nervous ſyſtem, *i. e.* the whole body; however along the ſurface of the ſkin, in an eſpecial manner. This follows from the uniformity both of the whole medullary ſubſtance, and of the ſkin. The firſt communicates the vibrations which aſcend along the

the nerves affected to the whole body, the laſt thoſe impreſſed upon the part of the ſkin, which touches the hot or cold body, to the other parts of it. Now this is agreeable to experience: for when the whole body is too hot, or too cold, we find that the mere touch of a cold or hot body will give general relief immediately; and in ſome caſes a thrilling or ſhivering may be felt to run along the ſkin.

Thirdly, If the ſkin be contracted by any cauſe different from the direct impreſſion of cold, as by the pain propagated from a wound, the colic, the irritation of a ſtone in the bladder, &c. this contraction, firſt excited by an increaſe of vibrations in the muſcular variouſly interwoven fibrils of the ſkin, may be expected afterwards to check and diminiſh the vibrations there, and thus to occaſion the ſenſation of cold, agreeably to experience. The chilline ſs ariſing from matter abſorbed, and from the cauſe of acute diſtempers, whatever that be, may admit of a like explanation.

The tremors, *i. e.* ſudden, ſhort, alternate contractions of the antagoniſt muſcles, which happen in the foregoing caſes, ariſe probably from an increaſe of vibrations, not ſubject to ideas, and the voluntary power, deſcending from the brain into the whole ſyſtem of the muſcles; and ſeem to differ from the ſtronger and larger convulſive motions of hyſteric and epileptic diſorders, called convulſions emphatically, rather in degree than kind. Theſe tremors generally precede the ſenſe of chilline ſs, when the contraction of the fibrils of the ſkin does not ariſe from the direct impreſſion of cold.

We may from hence paſs to the ſenſation of chilline ſs, and the tremors, which are ſometimes occaſioned by the paſſions, fear, anger, ſurprize, joy, &c. Both the redneſs and the paleneſs of the lips, face, and neck, which are obſervable in theſe caſes, are marks of a contraction in muſcular fibrils; in a leſs degree in the firſt caſe, ſo as to check the return of the venal blood; in a greater in the laſt, ſo as to prevent the influx of the arterial.

Fourthly, It is eaſy to conceive, that heat may occaſion pain, agreeably to the hypotheſis concerning pain, above propoſed. For the ſtrong vibrations excited by great heat muſt put the ſmall parts beyond the ſpheres of each other's attraction, and ſo produce the ſolution of continuity. But neither does it ſeem inconceiveable, that cold may have a like effect, agreeably to the doctrine of vibrations, though the proceſs be different. For great cold, by checking the vibrations in the external part, to which it is applied, will alter the ſituation and diſtance of the ſmall medullary particles there, and ſo muſt excite vigorous vibrations in the aſcending nerves, and the correſponding region of the brain, which is juſt the effect occaſioned by heat, applied to the ſame external part. Hence, if we are touched by a very hot, or a very cold body, inadvertently, and without ſeeing it, it ought to be difficult to diſtinguiſh which it is, agreeably to the fact. The conflict between the diminiſhed vibrations, in the external part to which cold is applied, and the previous ones ſubſiſting in the correſponding part of the brain, may exalt theſe previous ones, as much as heat does, ſo as to render the firſt ſimple impreſſion of cold ſimilar to that of heat.

Fifthly, The continued impreſſion of heat makes us more ſenſible of cold. For when heat has rarefied the parts, and adapted them to a peculiar ſtrength and frequency of vibrations, differing from the uſual ſtandard, the cold, whoſe difference from the uſual ſtandard lies on the other ſide, muſt raiſe a greater conflict, and produce a greater change, than if the parts had remained at the uſual ſtandard. The continued impreſſion of cold muſt for the ſame reaſons make us more ſenſible of heat. This explication will perhaps ſuit with other theories of ſenſation, as well as with that drawn from vibrations. However, the mere conſiſtency of any phænomena with the doctrine of vibrations is worthy of ſome attention in this inquiry.

Sixthly, When the calf of the leg is affected with the cramp, ſetting the foot upon a cold marble will afford immediate relief. For the cold may check the violent vibrations in the fibres of the *gaſtrocnemii* and *ſoleus*, directly and immediately; or it may do it by exciting vigorous vibrations of a different kind, which extend to their antagoniſt muſcles, as well as to the fore-mentioned ones. But I judge the firſt account to be more probable.

Seventhly, If a limb, that has been much chilled with cold, be brought to a fire ſuddenly, it will firſt be much pained, and then mortify. For the vibrations excited by the fire, though moderate in reſpect of the uſual ſtandard, are yet exceſſive in reſpect of thoſe which the cold has introduced, alſo in reſpect of that ſphere of attraction, which it has now fixed upon the parts: there will ariſe therefore a violent conflict, ſolution of continuity, and conſequent pain; and the parts will be agitated ſo much more than their preſent ſpheres of attraction will permit, that they cannot return to it any more, but muſt be entirely diſunited, and run into different combinations, *i. e.* the limb muſt mortify. But, if the limb be put into cold water, rubbed, and gradually exalted to the uſual ſtandard of heat, it may be preſerved. Where it is to be obſerved, that the heat of water, while fluid, is above the freezing point, and, conſequently, greater than that of a frozen limb.

It may ſomewhat confirm this reaſoning, to give a ſimilar explication of ſome of the phænomena of glaſs bubbles, made by dropping melted glaſs into water. We may ſuppoſe then, that theſe fall at once into powder, when broken at their points, becauſe the cold water has ſo far reduced the ſphere of attraction, that all the parts of the bubbles are agitated beyond this, by breaking their points. But if a bubble be heated, and its parts brought to a larger ſphere of attraction by the agitations from heat, it will no longer fall to powder when broken at its point. It may alſo have its parts ground away at pleaſure, without falling to powder, becauſe grinding agitates all the contiguous parts with ſtrong vibrations, like heat, and enlarges the ſphere of their attractions.

Eighthly, When the parts contiguous to a mortified ſlough have a ſufficient heat in them, excited by the *vis vitæ*, or warm applications, the vibrations attending this life and heat of the parts ought to help to ſhake off and ſeparate the mortified ſlough,

i. e.

i. e. to ſtop the mortification; which is agreeable to the fact. Hence mortifications from external cold, in bodies otherwiſe healthy, will come to ſeparate ſooneſt, and moſt perfectly, as it is frequently ſeen in cold climates. Hence alſo mortifications happening in the acute diſtempers of young perſons, if they ſtop at all, ſtop ſooner than thoſe in the extreme parts of old perſons.

Ninthly, It is ſaid, that cold water, ſprinkled upon the diſtended limbs of malefactors upon the rack, renews and augments their pains. Now, we may here ſuppoſe, that the parts had, in ſome meaſure, begun to accommodate themſelves to their diſtended ſtate, by getting new and enlarged ſpheres of action: when therefore the cold water endeavours to contract the parts again, and to narrow the ſpheres of action, the limbs ſtill continuing diſtended by the rack, it is evident, that a ſtrong conflict, with violent vibrations, and the ſolution of continuity, muſt enſue. Was the limb releaſed firſt, and then cold water applied, it might contribute, as in ſprains, to reſtore the parts to their former ſtate, without exciting any ſuch violent conflict. The good effects of vinegar, verjuice, ſpirit of wine, and other contracting liquids, in ſprains, are to be explained upon the ſame principles.

Tenthly, Hot or cold water feels hotter or colder, reſpectively, when the hand is moved in it, than when it is kept at reſt. For the hand, when at reſt, has time, a little to check or exalt the vibrations in the contiguous hot or cold water.

Eleventhly, When a perſon goes into cold water leiſurely, he is apt to ſob, and to reſpire in a convulſive manner, for a ſhort time. For the impreſſion of the cold upon the lower limbs excites ſuch vigorous vibrations in the abdominal, and other muſcles of expiration, as being nearer to the ſeat of the impreſſion than the muſcles of inſpiration, that a convulſive continued expiration is firſt produced, then a ſob, or deep inſpiration; and laſtly, ſtrong convulſive expirations and inſpirations for ſome ſucceſſions.

The good effects of cold bathing ariſe perhaps, in part, from its narrowing the ſphere of attraction in the ſmall parts of the muſcular fibres, and at the ſame time making this attraction ſtronger. Hence it may be prejudicial in ſome paralytical affections, as it is found to be. For, if the ſmall veſſels of the nerves be obſtructed, it may, by contracting the ſolids, increaſe the obſtruction, and, conſequently, the impediment to the free vibrations neceſſary to ſenſe and motion.

Twelfthly, Bathing in warm water, impregnated with active mineral particles, may, by exciting and increaſing vibrations in the white medullary ſubſtance, as well as by other means, remove obſtructions in its ſmall veſſels, and thus be ſerviceable in many paralytical diſorders, as it is found to be in fact. The ſame reaſoning is applicable to the ſtiffneſs, inſenſibility, and impotency, of motion, which the rheumatiſm often leaves in the limbs.

Cold bathing may in like manner be ſerviceable in paralytic and rheumatic diſorders, by exciting and increaſing vibrations; provided the ill effect from the immediate contraction does not preclude this good one.

Thirteenthly, Since frictions, and other impreſſions upon the ſkin, increaſe the vibrations there, it may be expected, that they ſhould increaſe the heat. And this is the fact. If a perſon rubs his hands together in cold weather, the ſenſation of heat will be felt to ariſe in a moment, and to go off again in a moment after he ceaſes to rub; for the vibrations excited by rubbing may be expected to languiſh immediately, if not kept up by continuing the friction.

Fourteenthly, Strong taſtes may, according to the doctrine of vibrations, be expected to leave a heat upon the tongue, mouth, and *fauces*, as they are found to do. And, in general, all vivid impreſſions upon every part of our bodies ought to increaſe the heat generally or particularly; which perhaps is the caſe, though we are ſeldom able to determine this by obſervation.

Fifteenthly, All ſtrong emotions of mind ought alſo to increaſe the heat of the body. This is a matter of common obſervation, if we except the chillineſs of the ſkin, and coldneſs of the extremities, which have been explained above, agreeably to the doctrine of vibrations.

The three laſt articles favour the above delivered conjectures concerning the peculiar nature of the vibrations belonging to heat. The phænomena enumerated in all the fifteen may admit of other explanations, at leaſt in part, but of none, as far as I can judge, that are inconſiſtent with the doctrine of vibrations.

PROP. XXV.

To examine how far the Phænomena of Wounds, Burns, Bruiſes, Lacerations, Inflammations, and Ulcers, are agreeable to the Doctrine of Vibrations.

The manifeſt ſolution of continuity, which is the very eſſence of a wound, may occaſion pain, agreeably to the doctrine of vibrations, in the manner that has been explained already. This is the immediate pain that attends a wound. The ſubſequent one is to be referred either to the head of inflammation, or to that of ulcer.

The immediate pain from burns has likewiſe been explained agreeably to the doctrine of vibrations, alſo the ſeparation of the dead or mortified eſchar, under the laſt propoſition. The ſubſequent pain is to be referred to the heads of inflammation and ulcer, as before.

A bruiſe is ſuppoſed, and with the appearance of reaſon, to be an infinite number of infinitely ſmall wounds. It ought therefore to be attended with a pain reſembling that of a large wound, and yet not exactly the ſame, which is the fact. As large wounds are ſometimes healed by the firſt intention, without any ſubſequent ulcer, ſo may bruiſes. If otherwiſe, the ſubſequent pain muſt again be referred to the heads of inflammation and ulcer.

Lacerations

Lacerations are great wounds attended with bruiſes, *i. e.* with an infinite number of infinitely ſmall ones. Theſe are never cured without coming to digeſtion, *i. e.* an ulcer, and the requiſite previous inflammation.

The heat and diſtention of the ſmall veſſels in inflammations are ſufficient to account for the pain attending them, upon principles already laid down.

In ulcers the nerves are expoſed defenceleſs, and therefore are ſuſceptible of the moſt violent vibrations, and conſequent pain from ſlight impreſſions; to which it is to be added, that the moiſture of ulcers, by diſſolving the ſaline parts of bodies applied, greatly augments their actions upon the naked nerves.

Fomentations and cataplaſms ſeem to afford relief in the foregoing caſes, partly by diffuſing an equal warmth all around, partly by their aqueous or oily moiſture. For the diffuſion of warmth prevents that conflict, which would ariſe between neighbouring parts of different heats; and the moiſture, which inſinuates itſelf among the ſmall particles, ſets them at greater diſtances, and conſequently leſſens their mutual actions. The violent vibrations will therefore be moderated on both accounts. The friction attending embrocations does in like manner diffuſe vibrations all around, and the liniment or liquid, with which the embrocation is made, may contribute according to its particular qualities. Hence embrocations are alſo of uſe in reſolving obſtructions.

In all theſe caſes the violent vibrations, which aſcend along the nerves of the injured part, muſt be communicated in a particular manner to the neighbouring branches, and occaſion a ſlight inflammation, *i. e.* a ſoreneſs, there. This ſoreneſs is not perceived while the original inflammation ſubſiſts, being obſcured by it. The vibrations in the neighbouring nerves may alſo be increaſed by the ceſſation of violent ones in the place of original inflammation. Hence the ſoreneſs of the neighbouring parts after colics, head-achs, &c. The pain in the external parts of the head, which follows a debauch, *i. e.* an inflammation of the brain, and its membranes, may be of the ſame kind.

Theſe hints may ſerve to ſhew, that the doctrine of vibrations is as agreeable to the phænomena of wounds, burns, &c. as any other yet propoſed, or even more ſo. But much farther inquiry is requiſite.

PROP. XXVI.

To examine how far the Phænomena of Itching and Titillation are agreeable to the Doctrine of Vibrations.

Itching often attends the beginning and ending of inflammations, and particularly the eruption of inflammatory puſtules. We may conclude therefore, according to the foregoing account of inflammations, that itching is cauſed by a moderate increaſe of vibrations, in a part of ſmall extent.

It is agreeable to this, that the lodgment of the perſpirable matter, or other cutaneous ſecretion, when hardened, occaſions itching; for it is eaſy to conceive, that,

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in theſe caſes, an obſtruction and ſlight inflammation in the ſmall veſſels of the ſkin may ariſe.

Preſſure, which allays itching, may be ſuppoſed to do this by checking the vibrations.

Scratching may convert it into a pleaſure, by communicating the increaſed vibrations to the neighbouring parts, in ſuch a degree as falls within the limits of pleaſure. And as this freer communication cauſed by ſcratching may increaſe the vibrations in the neighbouring parts, ſo it may leſſen thoſe which ſubſiſted before in the point that itched, thus reducing all to an equality, or nearly ſo. At the ſame time it appears, that rude or long-continued ſcratching muſt, by the increaſe of vibrations, which it occaſions, alſo by laceration, increaſe the heat, inflammation, and itching, and even end in pain.

Friction of the ſkin, without previous itching, excites a pleaſurable ſenſation; and alſo ends in inflammation and pain, when carried too far, for the like reaſons.

Since extreme parts are more apt to receive an increaſe of vibrations than others, as has been obſerved; it appears, that the itching of the noſe and *anus* may be expected to attend worms in the ſtomach or inteſtines, and the itching of the *glans penis* and *anus* a ſlight inflammation at the neck of the bladder from a ſtone. Theſe inſtances ſhew, that vibrations run freely along the ſurfaces of uniform membranes; and this is farther confirmed in the laſt caſe, by the check which a preſſure made *in perinæo*, or any where upon the *urethra*, will give to the itching in the *glans*.

Titillation is nearly related to itching. It is excited by ſlight impreſſions upon the more ſenſible parts, frequently renewed; and this may ſhew, that it ariſes from an increaſe of vibrations. The impreſſions muſt be ſo ſlight as not to excite a contraction in the neighbouring muſcular fibrils, and alſo frequently renewed, that the increaſe of vibrations may diffuſe itſelf farther and farther perpetually; and thus the whole nervous ſyſtem may, in ſome caſes, be at laſt put into a pleaſurable ſtate, approaching to the limits of pain, and paſſing within them at times.

Hence it appears, that as ſoon as children have learnt to cry, or yield a ſound, from naſcent pains, and from pleaſures juſt paſſing into pains, titillation may excite ſhort, alternate, naſcent cries in them, *i. e.* laughter, but not before. If the impreſſions be made upon the cheſt, the effect will be quicker and ſtronger, becauſe theſe impreſſions have a direct influence upon the muſcles concerned in laughter.

If a feather be paſſed ſlightly to and fro between the lips, it will excite a titillation there, which will diffuſe itſelf into the neighbouring parts of the upper lip and chin, and paſs into an itching in them. The original titillation between the lips may be allayed by preſſing them together, and the conſequent itching by preſſure and friction, as in other caſes. All theſe things ſuit with the hypotheſis of vibrations, and of their free diffuſion.

In like manner, the free diffuſion of vibrations, and their influence in contracting the neighbouring muſcles, may be inferred from the vomitings, which are excited by tickling the *fauces* with a feather.

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PROP. XXVII.

To examine how far the Senſations attending Preſſure, and muſcular Contraction, are agreeable to the Doctrine of Vibrations.

As friction and titillation agree with heat in increaſing vibrations, ſo preſſure agrees with cold in checking them. Thus preſſure abates the uneaſineſs from itching, as mentioned above; and binding, or otherwiſe gently compreſſing, parts in pain, or inflamed, *i. e.* parts in which the vibrations are exceſſive, will, for the moſt part, afford relief; whereas friction would increaſe the pain to a great degree. But the pain uſually becomes more violent the inſtant the compreſſion is removed. For the mere elaſticity of the parts alters their figure, *i. e.* produces internal motions, with an increaſe of vibrations. Preſſure may alſo increaſe vibrations in the internal parts, contiguous to thoſe where it checks them; or even in the external ones, if it be ſo great as to occaſion any conſiderable diſtention there. And thus there may be a variety of vibrations occaſioned by the ſeveral kinds and degrees of preſſure, ſufficient to correſpond to all the variety of ſenſations excited thereby.

Muſcular contraction moſt commonly attends and is attended by preſſure, as in the common motions of handling and walking, whereby we overcome the *vis inertiæ* of our own bodies, and of thoſe which we have occaſion to move or ſtop. Hence all the ſenſations, which we receive from the *vis inertiæ* of matter, muſt be derived from theſe two ſources of muſcular contraction and preſſure.

Now it has been obſerved already, that muſcular contraction checks the vibrations in the contracted fibres, and increaſes them in the neighbouring parts. And it is eaſy to conceive, that the ſenſation correſponding to this alteration of vibrations may ſometimes fall within the limits of pleaſure, ſometimes go beyond them. In young animals, alſo after ſleep and reſt, in all, it is uſually pleaſant; after much labour, or ſprains, and in inflammations, painful; and this, whether the diſordered muſcle itſelf, or its antagoniſt, be contracted. For there muſt be an increaſe of vibrations in the diſordered muſcle both before it can be itſelf contracted, and alſo in conſequence of the contraction of its antagoniſt; as has been ſhewn before.

PROP. XXVIII.

To examine how far the Phænomena of Numbneſſes, and paralytical Inſenſibilities, are agreeable to the Doctrine of Vibrations.

Numbness, being a diminution of ſenſibility, ought, according to the doctrine of vibrations, to proceed from ſuch cauſes, as either indiſpoſe the parts for the reception of vivid vibrations, or hinder their free aſcent to the brain. Agreeably to this, a compreſſion

preſſion made upon the nerve, which leads to any part, will occaſion a numbneſs in that part, the nerve below the compreſſion being unfitted thereby to receive vibrations freely, and the nerve above incapable of tranſmitting freely ſuch as are excited. A compreſſion of a blood veſſel may have alike effect, becauſe it muſt leſſen that heat, and inteſtine motion, which a free circulation would communicate to the part. The compreſſion uſually made upon the ſkin, when we preſs a nerve or blood veſſel, will alſo contribute. And external cold will haſten the effect, when joined to the juſt named cauſes; or produce it alone, if intenſe, or long continued. In like manner, numbneſs, from a compreſſion made upon the nerves or blood veſſels, is much favoured by ſleep, becauſe the parts are then indiſpoſed both to receive and to tranſmit vibrations.

The benumbed limb feels larger, becauſe any groſs body, which encompaſſes and preſſes upon a limb by its weight or ſtricture, deadens the vibrations in it; and therefore converſely, when the vibrations are ſo deadened from a different cauſe, the idea of a groſs encompaſſing body, or, which is almoſt the ſame thing, of the enlargement of the limb, will be ſuggeſted to the mind. But this circumſtance muſt be referred to the head of aſſociation.

When the benumbed part begins to recover its feeling, violent prickings are often perceived. Now theſe ſeem to take place in the points where the natural vibrations firſt return, ſuppoſe at the ends of the nervous *papillæ*, and to ariſe from the conflict between the natural vibrations in theſe points, and the languid ones in the neighbouring parts. However, they come to an equality at laſt, by their mutual influences, as well as by the return of the natural vibrations to all the parts; which may ſerve to ſhew how itching ceaſes at laſt of itſelf. Friction helps to diſperſe and remove theſe prickings, and to reſtore the loſt ſenſibility, which is very ſuitable to the notion of vibrations, and to the effect which it has in itchings.

If the hand be held down, and ſhaken, its muſcles being firſt relaxed by a voluntary power, a numbneſs will be occaſioned, in which the fingers feel large, for the reaſon given above. This numbneſs ſeems to ariſe from the irregular agitations, or vibrations, excited in the ſmall parts; which, being different from the natural ones, or thoſe in which ſenſibility conſiſts, muſt check them; juſt as the agitations of water from the wind hinders the free propagation of regular undulations from a ſtone caſt into it; or as any commotion of the air checks the free and diſtinct communication of a ſound. It ſeems alſo, that thoſe irregular and diſſonant vibrations, which ſhaking the hand cauſes in the ſmall medullary particles of its nerves, may paſs on from part to part, though not ſo freely as regular ones.

From hence we may proceed to conſider the numbneſs occaſioned by the ſtroke of the *torpedo*. For the oſcillations of this fiſh's back may neither be iſochronous in themſelves, nor ſuitable to thoſe which exiſted previouſly in the hand; and yet they may be ſo ſtrong, as not only to check and overpower thoſe in the part which touches the fiſh,

fiſh, but alſo to propagate themſelves along the ſkin and up the nerves, to the brachial ganglion, and even to the ſpinal marrow and brain; whence the perſon would firſt feel the ſtupefaction aſcend along the arm to the ſhoulder, and then fall into a giddineſs, and general confuſion, as is affirmed to happen ſometimes. Some effects of concuſſions of the brain, and perhaps of the ſpinal marrow, alſo of being toſſed in a ſhip, of riding backwards in a coach, and of other violent and unuſual agitations of the body, ſeem to bear a relation to the preſent ſubject. But it would be too minute to purſue theſe things.

When a palſy ariſes from an internal cauſe, we may ſuppoſe, that the medullary part of the brain, or of the ſpinal marrow, or the nerve itſelf, in all which the veſſels are extremely fine, and therefore liable to obſtructions, eſpecially in old age, become opaque, and unqualified to receive and tranſmit vibrations freely, according to Sir *Iſaac Newton*'s opinion. Hence a diminution or entire loſs of ſenſe or motion, or both, may follow, according to the degree and extent of the obſtruction and opacity. The voluntary power of motion is ſoon loſt, as being an acquired faculty, and depending upon aſſociated circumſtances, and memory. But if there be any degree of inflammation in the fine veſſels of the motory nerves, or of the correſponding parts of the brain, this may occaſion convulſive motions; and for the ſame reaſon, an inflammation in the ſenſory nerves, or their origins in the brain, may occaſion pain. Now it is reaſonable to expect ſuch inflammations in many caſes as a conſequence of the obſtructions, and both convulſive motions and pains are often found to attend paralytic affections.

PROP. XXIX.

To examine how far the Phænomena attending on venomous Bites and Stings are agreeable to the Doctrine of Vibrations.

THAT the active liquors, infuſed by venomous animals after they bite or ſting, operate, in part, by the violent vibrations which they excite in the living parts immediately affected, and which are thence propagated along the nerves up to the brain, and alſo along the ſurface of the body, by means of the continuity and uniformity of the ſkin, may appear from the following reaſons.

Firſt, As the ſolids and fluids, ſeem in general, equally concerned in all the natural functions, and morbid deviations from them, it is moſt reaſonable to refer part of the effects of venomous bites and ſtings to each. But it is difficult to conceive how theſe poiſons ſhould have any immediate effect upon the ſolid nervous capillaments, but by agitating their parts.

Secondly, The active particles of theſe poiſons, which are able, in ſo ſmall a quantity, to produce ſuch violent diſorders, and ſometimes in a very ſhort ſpace of time, may well be conceived able alſo to agitate the nervous parts with ſtrong vibrations.

Thirdly, If we ſuppoſe their firſt and moſt immediate effect to be upon the fluids, yet this may, or muſt, be agitations, that will afterwards be communicated to the ſolids.

Fourthly, The vibrations of the medullary particles, mentioned in this theory, ſeem peculiarly ſuited to anſwer the ſeveral quick and ſurprizing effects of theſe poiſons. The pain, ſwelling, redneſs, and lividneſs, all around the part affected, may eaſily be derived from the vibrations propagated all around. Oils and fats, rubbed upon the part, may, by damping theſe, prevent the ill effects. Vibrations, propagated either along the ſkin, through the mouth and noſe, or up to the brain, and thence along the eighth pair of nerves, or, which is moſt probable, both ways, to that very ſenſible part the ſtomach, may produce ſickneſs and vomitings. And if the gall-duct be contracted from the ſame cauſe during the vomitings, a ſudden jaundice will follow from the violence with which the gall is forced back into the blood by the action of vomiting. Joy, ſorrow, fear, melancholy, may eaſily follow according to the reſpective natures of the poiſons, becauſe theſe, according to this theory, all ariſe from and are attended by correſponding vibrations in the white medullary ſubſtance of the brain. And a like account may be given of the averſion to black, and the delight in glaring objects, and ſtrong colours. The correſponding nerves of different animals have probably a general reſemblance to each other, juſt as the correſponding *viſcera* and fluids have. And thus the poiſon of rabid animals may have a peculiar power of affecting the nerves of the *fauces*, and muſcles of deglutition, ſo as to produce the *hydrophobia*. Cold bathing alſo, and muſic, whoſe immediate effects ſeem confined to the ſolids, to the exciting vibrations in them, may cure reſpectively in the bite of a mad dog, and of the tarantula.

However, what is here alleged is not at all to be ſo underſtood, as if the immediate effects of poiſons upon the fluids were not alſo very conſiderable. In ſome caſes they may be greater, in others leſs, than thoſe exerted upon the ſolids. It ſeems probable, that the poiſon is communicated from the fluids immediately affected to thoſe at a diſtance, chiefly by means of the ſerous veſſels. For theſe, having numerous immediate communications with each other, will tranſmit it freely, and yet ſo as that all the neighbouring parts may be affected ſomewhat in proportion to their nearneſs to the ſeat of the injury, as they are found in fact to be; whereas, were the diffuſion of the poiſon to be made by the circulation of the fluids alone, all the parts would have an equal chance. But the propagation of the poiſon along the ſolid capillaments of the nerves is alſo a principal reaſon why the neighbouring parts are more affected than the diſtant ones. The effects of inoculation bear a great reſemblance to thoſe of venomous bites and ſtings; and the ſame may be ſaid of venereal and other infections.

PROP. XXX.

To examine how far the tangible Qualities of Bodies admit of an Explanation agreeable to the Doctrine of Vibrations.

HITHERTO we have conſidered only the more vigorous ſenſations of feeling, ſuch as may be called the pleaſures and pains of this ſenſe. We come now to the feeble and adiaphorous ſenſations. Theſe are moiſture, dryneſs, ſoftneſs, with fluidity, hardneſs, ſmoothneſs, roughneſs, motion, reſt, diſtance, and figure. Now it ſeems very eaſy to conceive, that theſe, with their ſeveral varieties, may impreſs correſponding varieties, of vibrations upon the nerves of feeling; alſo, that theſe laſt varieties will be chiefly compoſitions of the vibrations ariſing from preſſure, and muſcular contraction, *i. e.* from the *vis inertiæ* of matter.

Thus, ſince moiſt bodies adhere to the fingers, and ſo leave a ſmoothneſs with their own degree of cold or heat upon them, moiſture may be judged of by the touch from this peculiar alteration of vibrations; and dryneſs from the abſence of it. Liquid bodies make no alteration of figure in our fingers, and yield eaſily to their motions: ſoft ones do the ſame in a leſs degree; hard ones the contrary. Smooth bodies make an equable preſſure, and give no reſiſtance to a motion along their ſurfaces; rough ones the contrary. The motions of our own bodies are attended by the vibrations peculiar to preſſure, and muſcular contraction; of other bodies, which touch our own, by thoſe from preſſure. We judge of reſt by the abſence of theſe. Diſtance is judged of by the quantity of motion, and figure by the relative quantity of diſtance. And thus it appears, that all degrees and kinds of theſe tangible qualities may impreſs correſponding vibrations upon thoſe regions of white medullary ſubſtance of the brain, and ſpinal marrow, which correſpond to the ſkin and muſcles.

The ſame qualities are made alſo by means of light to impreſs vibrations upon our eyes, which correſpond in great meaſure to thoſe made on the ſenſe of feeling, ſo as to vary with their varieties. And as the ſenſe of ſight is much more extenſive and expedite than feeling, we judge of tangible qualities chiefly by ſight; which therefore may be conſidered, agreeably to Biſhop *Berkley*'s remark, as a philoſophical language for the ideas of feeling; being, for the moſt part, an adequate repreſentative of them, and a language common to all mankind, and in which they all agree very nearly, after a moderate degree of experience.

However, if the informations from touch and ſight diſagree at any time, we are always to depend upon touch, as that which, according to the uſual ways of ſpeaking on theſe ſubjects, is the true repreſentation of the eſſential properties, *i. e.* as the earneſt and preſage what other tangible impreſſions the body under conſideration will make upon our feeling in other circumſtances; alſo what changes it will produce in other bodies; of which again we are to determine by our feeling, if the viſual language

ſhould not happen to correſpond to it exactly. And it is from this difference that we call the touch the reality, light the repreſentative: alſo that a perſon born blind may foretel with certainty, from his preſent tangible impreſſions, what others would follow upon varying the circumſtances; whereas if we could ſuppoſe a perſon to be born without feeling, and to arrive at man's eſtate, he could not from his preſent viſible impreſſions judge what others would follow upon varying the circumſtances. Thus the picture of a knife, drawn ſo well as to deceive his eye, would not when applied to another body, produce the ſame change of viſible impreſſions, as a real knife does, when it ſeparates the parts of the body through which it paſſes. But the touch is not liable to theſe deceptions. As it is therefore the fundamental ſource of information in reſpect of the eſſential properties of matter, it may be conſidered as our firſt and principal key to the knowledge of the external world.

PROP. XXXI.

To explain in what Manner we are enabled to judge of the Seat of Impreſſions made on the external Surface of our Bodies.

When we apply the parts of our bodies to each other, particularly our hands to the ſeveral parts of the ſurface of our bodies, we excite vibrations in both parts, viz. both in the hands, and in that part of the ſurface which we touch. Suppoſe the hand to paſs over the ſurface gradually, and the firſt impreſſion will remain the ſame, while the laſt alters perpetually, becauſe the vibrations belonging to the laſt are excited in different nerves, and by conſequence enter the brain, or ſpinal marrow, at different parts. And this difference in the laſt impreſſion, or its vibrations, correſponding always to the part on which the impreſſion is made, will at laſt enable us to determine immediately what part of our bodies we touch; *i. e.* what is the diſtance of the part touched from the mouth, noſe, ſhoulder, elbow, or other remarkable part, conſidered as a fixed point. For by paſſing frequently from the mouth, noſe, &c. to the part under conſideration, children learn this very early, even without attending to it at all explicitly.

Sight alſo helps us to judge of this diſtance in the parts, which are frequently expoſed to view, and this in proportion to that frequency.

Let us ſuppoſe then, that we are able to determine at once what external part of our bodies we touch, *i. e.* to determine how it is ſituated in reſpect of the other parts, and to ſhew the correſponding part in the body of another perſon; it will follow, that if a like impreſſion be made not by our own hand, but by that of another, or by any foreign body, we ſhall know at once the part on which it is made. We ſhall alſo, ſuppoſing us arrived at a ſufficient degree of voluntary power over the muſcles, be able at once to put our hand upon the part on which the impreſſion is made.

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By degrees we ſhall learn to diſtinguiſh the part, not only when an impreſſion like the gentle ones of our hands is made upon it, but alſo when a vivid, rude, or painful one is. For, firſt, all impreſſions made upon the ſame part agree in this, whatever be their differences as to kind and degree, that they enter by the ſame nerves, and at the ſame part of the brain, and ſpinal marrow. Secondly, we impreſs a great variety of ſenſations ourſelves by our hands, according as they are hot or cold, by friction, ſcratching, &c. and moſt impreſſions from foreign bodies will bear ſome reſemblance to ſome of theſe. Thirdly, we often ſee upon what part impreſſions from foreign bodies are made. Fourthly, when they leave permanent effects, as in wounds, burns, &c. we always examine by feeling, where the impreſſion was made.

Now from all theſe things laid together it follows, that in itchings from an internal cauſe, and in impreſſions where neither our hand nor eye give us any information, we ſhall, however, be able to determine at once with tolerable accuracy what external part is affected, and to put our hand upon it, ſo as to confirm our preſent judgment, and render our future judgment, and voluntary power, more certain and ready. We ſhall alſo do this moſt readily in thoſe parts which we ſee and feel moſt frequently, the hands for inſtance; leſs ſo, *cæteris paribus*, in thoſe we ſeldom ſee or feel; and leaſt ſo, where we never ſee the part, and ſeldom touch it. At leaſt this ſeems to reſult from the theory. But it is to be obſerved, that the fact ought to be tried chiefly in children. For in adults the ſeveral degrees approach more to perfection, *i. e.* to an equality among themſelves.

PROP. XXXII.

To explain in what Manner, and to what Degree, we are enabled to judge of the Seat of internal Pains.

HERE we may obſerve, firſt, that as we never ſee or feel the internal parts, ſuch as the lungs, heart, ſtomach, inteſtines, liver, kidneys, bladder, &c. we can have no direct information in the manner explained under the foregoing propoſition.

Secondly, Since all pains diffuſe an increaſe of vibrations into the neighbouring parts, the increaſed vibrations in the external parts, ariſing from internal pains, will be a groſs general direction, ſo as to determine the ſeat of the pain within groſs limits, in reſpect of ſuperior and inferior, anterior and poſterior, right and left.

Thirdly, Preſſing the external parts, ſo as to augment or alleviate the internal pain, muſt contribute alſo.

Fourthly, Since all the internal parts in the *thorax* and *abdomen* receive branches from the intercoſtal nerve, which communicates with each vertebral pair, it follows that the internal pains will ſend vibrations up to the ſpinal marrow, which will enter in at the ſame parts of it, as the vibrations from external pains in the neighbourhood. At the ſame time it appears from the many ganglions, plexuſes, and communications of

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nerves in the *thorax* and *abdomen*, alſo from the origin and diſtribution of the nerves of the *cauda equina*, that this can be no more than a groſs general direction; and that the great number of ſympathetic influences from theſe cauſes, alſo from the running of vibrations along membranes, and from their fixing particularly in nervous parts, or extreme ones, will give occaſion to many deceptions here, and in certain caſes make the pain be felt, *i. e.* appear to be, in parts at a conſiderable diſtance from the ſeat of the diſorder.

Fifthly, Suppoſe the patient to ſhew by the external parts whereabouts his pain is felt internally, then the phyſician may, from his knowledge of the ſituation of the internal parts in reſpect of the external, gueſs pretty nearly, what internal part is affected.

Sixthly, The ſymptoms attending the pain, its cauſe and conſequences, compared with the natural functions of the parts, with the hiſtory of diſeaſes, and morbid diſſections, will enable the phyſician to determine with great preciſion in ſome caſes, and help a little in moſt.

Seventhly, When the patient has had long experience of the ſame kind of internal pains, or of different ones, he deſcribes more exactly, and alſo gets certain fixed points, to which he refers his pains.

Eighthly, Anatomiſts and phyſicians may ſometimes judge with great exactneſs in their own caſes, having both a knowledge of the parts, and their functions, and alſo their own feelings, to guide them.

This ſubject deſerves a particular and accurate examination, it being of great conſequence to be able to diſcover the ſeat and *cauſa proxima* of the diſtemper, from the complaints of the patient, and from the previous concomitant, and conſequent circumſtances. I hope theſe two propoſitions may caſt ſome light upon it.

Here we may add an obſervation deducible from the doctrine of aſſociation, viz. as we learn by degrees, from impreſſions made on the ſurfaces of our bodies, to attend particularly to the ſenſations impreſſed on, or exiſting in each part, at pleaſure, *i. e.* to magnify the vibrations which take place in it; ſo, after diſorders in the internal parts, the aſſociated circumſtances ſeem often to renew the painful vibrations there, and to occaſion either the return of the like diſorder, or ſome other; at leaſt to have a conſiderable ſhare in theſe effects, when produced by their cauſes in an inferior degree. Thus diſorders in the bowels, cauſed at firſt by acrid impreſſions lay the foundation for a return of like diſorders on leſs occaſions. Thus women that have often miſcarried, ſeem to irritate the muſcular fibres of the *uterus* by the recollection of the aſſociated circumſtances, and ſo to diſpoſe themſelves to miſcarry more than according to the mere bodily tendency; fear and concern having alſo a great influence here. All this will be farther illuſtrated by what follows under the next propoſition.

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PROP. XXXIII.

To explain in what Manner, and to what Degree, the Pleaſures and Pains of Feeling contribute, according to the Doctrine of Aſſociation, to the Formation of our intellectual Pleaſures and Pains.

It follows from the foregoing account of the power of leaving traces, and of aſſociation, that all the pains from intenſe heat and cold, wounds, inflammations, &c. will leave a diſpoſition in the nervous ſyſtem to run into miniature vibrations of the ſame kind, and that theſe miniature vibrations will be excited chiefly by the aſſociated circumſtances. That is to ſay, The appearance of the fire, or of a knife, eſpecially in circumſtances like to thoſe in which the child was burnt or cut, will raiſe up in the child's nervous ſyſtem painful vibrations of the ſame kind with, but leſs in degree than, thoſe which the actual burn or wound occaſioned.

By degrees theſe miniature pains will be transferred upon the words, and other ſymbols, which denote theſe and ſuch-like objects and circumſtances: however, as the diffuſion is greater, the pain transferred from a ſingle cauſe muſt become leſs. But then, ſince a great variety of particular miniatures are transferred upon each word, ſince alſo the words expreſſing the ſeveral pains of feeling affect each other by various aſſociations, and each of them transfers a miniature of its own miniature upon more general words, &c. it comes to paſs at laſt, that the various verbal and other ſymbols of the pains of feeling, alſo of other pains bodily and mental, excite a compound vibration formed from a variety of miniatures, which exceeds ordinary actual pains in ſtrength. Theſe compound vibrations will alſo have a general reſemblance, and particular differences in reſpect of each other.

It follows therefore *a priori*, as one may ſay, and by a ſynthetic kind of demonſtration, that, admitting the powers of leaving traces, and of aſſociation, compound or mental pains will ariſe from ſimple bodily ones by means of words, ſymbols, and aſſociated circumſtances. And they ſeem to me to anſwer in kind and degree to the facts in general. If, farther, we admit the doctrine of vibrations, then theſe compound mental pains will ariſe from, or be attended by, violent vibrations in the nervous ſyſtem, and particularly in the brain.

Agreeably to this account, we may obſerve, that the mere words denoting bodily pains, though not formed into propoſitions or threatenings, affect children. However, ſince there happen daily aſſociations of the mere words with freedom and ſecurity, and of propoſitions and threatenings with ſufferings, children learn by degrees to confine their fear, ſorrow, &c. to thoſe things which are eſteemed the genuine ſigns, reaſons, cauſes, &c. of ſufferings. This is the caſe in general; but there are great particular differences both in children and adults; which yet, if accurately purſued, would probably

probably not only be conſiſtent with, but even confirm and illuſtrate, the doctrine of aſſociation.

And we may conclude upon the whole, ſince the pains of feeling are far more numerous and violent than thoſe of all the other ſenſes put together, that the greateſt part of our intellectual pains are deducible from them.

In like manner the pleaſures of an agreeable warmth, and refreſhing coolneſs, when we are cold or hot reſpectively, of gentle friction and titillation, leave traces of themſelves, which by aſſociation are made to depend upon words, and other ſymbols. But theſe pleaſures, being faint and rare in compariſon of others, particularly of thoſe of taſte, have but a ſmall ſhare in forming the intellectual pleaſures. Titillation may perhaps be excepted. For laughter, which ariſes from it, is a principal pleaſure in young children, and a principal ſource of the other pleaſures, particularly of thoſe of ſociality, and benevolence. Farther, ſince the miniatures left by the pains of feeling muſt in ſome caſes be faint originally, in others decline from the diffuſion, the faintneſs of the aſſociation, &c. theſe miniature pains will often fall within the limits of pleaſure, and conſequently become ſources of intellectual pleaſure; as in recollecting certain pains, in ſeeing battles, ſtorms, wild beaſts, or their pictures, or reading deſcriptions of them.

PROP. XXXIV.

To give an Account of the Ideas generated by tangible Impreſſions.

Here it may be obſerved, firſt, that the very words, *burn*, *wound*, &c. ſeem even in adults, though not formed into propoſitions, or heightened by a conjunction of circumſtances, to excite, for the moſt part, a perception of the diſagreeable kind; however, ſo faint in degree, that it may be reckoned amongſt the number of ideas, agreeably to the definitions given in the introduction.

Secondly, The words expreſſing the pleaſures of this ſenſe are probably attended with perceptions, though ſtill fainter in degree. Theſe perceptions may therefore be called the ideas belonging to thoſe words.

Thirdly, The words *moiſt*, *dry*, *ſoft*, *hard*, *ſmooth*, *rough*, can ſcarce be attended with any diſtinguiſhable vibrations in the fingers, or parts of the brain correſponding thereto, on account of the faintneſs of the original impreſſions, and the great varieties of them; however, analogy leads us to think, that ſomething of this kind muſt happen in a low degree. But when the qualities themſelves are felt, and the appropriated vibrations raiſed, they lead by aſſociation to the words expreſſing them; and thus we can diſtinguiſh the ſeveral tangible qualities from each other by the differences of their vibrations, and declare in words what each is.

Fourthly, The vibrations excited in the ſenſe of feeling by motion, diſtance, and figure, are ſo faint, and ſo various, that neither theſe words, nor any related expreſſions, can

can be ſuppoſed to excite any miniature vibrations in this ſenſe. Yet ſtill, upon feeling motions and figures, and paſſing over diſtances, the differences of vibrations from preſſure and muſcular contraction, *i. e.* from the *vis inertiæ* of our own bodies, or of foreign matter, ſuggeſt to us the words expreſſing theſe, with their varieties, by aſſociation.

Fifthly, The great extent of the ſenſe of feeling tends to make the miniatures fainter, eſpecially as far as the external parts are concerned; and would probably have ſo powerful an effect upon the miniatures raiſed in the internal parts, as to make them by oppoſing deſtroy one another, did not all the impreſſions of the ſame nature, viz. all thoſe from heat, from cold, from friction, &c. by whatever external part they enter, produce nearly the ſame effect upon the brain. Whence the ſeveral miniatures left by particular impreſſions of the ſame kind muſt ſtrengthen one another in the internal parts, at the ſame time that they obliterate one another in the external ones. However, where a perſon has ſuffered much by a particular wound, ulcer, &c. it ſeems according to the theory, that an idea of it ſhould be left in the part affected, or correſponding region of the brain, or ſpinal marrow.

Sixthly, The viſible ideas of the bodies which impreſs the ſeveral ſenſations of feeling upon us, are, like all other viſible ones, ſo vivid and definite, that they mix themſelves with, and ſomewhat obſcure, the moſt vivid ideas of feeling, and quite overpower the faint ones. Sight communicates to us at once the ſize, ſhape, and colour of objects; feeling cannot do the laſt at all, and the two firſt only in a tedious way; and is ſcarce ever employed for that purpoſe by thoſe who ſee. Hence perſons born blind muſt have far more vivid and definite ideas of feeling than others. An inquiry into their real experiences would greatly contribute to correct, illuſtrate, and improve, the theory of ideas, and their aſſociations.

PROP. XXXV.

To explain the automatic Motions, which ariſe from tangible Impreſſions.

The principal of theſe is the action of crying, which is in all animals, but eſpecially young ones, the natural and neceſſary conſequence of pain. I have already given ſome account of this action; but will here enter into a more particular detail of the circumſtances, and their agreement with the foregoing theory.

Let us ſuppoſe then a young child to have a very painful impreſſion made upon the ſkin, as by a burn. It is plain that the violent vibrations excited in the injured part, will paſs up to the brain, and over the whole muſcular ſyſtem, immediately; putting all the muſcles into a ſtate of contraction, as much as may be, *i. e.* making the ſtrongeſt ſet of muſcles every where overpower the weaker, for a certain time, and then give place to them for a certain other time, and ſo on alternately. Since therefore the

muſcles of expiration are ſtronger than thoſe of inſpiration, the air will be forced ſtrongly out of the *thorax* through the *larynx*, and, by conſequence, yield a ſound. It contributes to this, that the muſcles of the *os hyoides* and *larynx*, acting all together, and drawing different ways, muſt ſuſpend the cartilages of the *larynx*, ſo as both to narrow the paſſage of the air, and alſo render theſe cartilages more ſuſceptible of vibrations. As to the muſcles which contract and dilate the *larynx*, they are perhaps about equal in ſtrength to each other, and therefore may, by oppoſing each other, keep the chink in a ſtate intermediate between its leaſt and greateſt dilatation.

That the ſtrongeſt ſet of antagoniſt muſcles overpower the weaker, during the great effort in crying, may farther appear from the action of the extenſors of the neck, and flexors of the hand (both which ſets are ſtronger than their antagoniſts), at that time.

If it be objected here, that the elevators of the lower jaw, being ſtronger than the depreſſors, ought to keep the mouth ſhut during the action of crying, according to the foregoing reaſoning, whereas the contrary always happens; I anſwer, firſt, that when both theſe ſets of muſcles act at the ſame time, in proportion to their natural ſtrength, the mouth ought to be a little opened; ſecondly, that the vibrations which take place in the cartilages of the *larynx* ſeem to impart a peculiar degree of force to all the neighbouring muſcles, *i. e.* to the depreſſors of the lower jaw; and, thirdly, that the muſcles which paſs from the *larynx* and *os hyoides* to the lower jaw act to an advantage in drawing it down, in the preſent caſe, becauſe the *os hyoides* is at this time fixed by its other muſcles.

The diſtortions of the face, which happen previouſly to crying, and during the courſe of it, ſeem to be ſufficiently agreeable to the notions here advanced; the muſcles, which draw the lips from each other, being much ſtronger, than thoſe which cloſe them.

The manner in which titillation occaſions laughter in its automatic ſtate, has been already explained. We may add here, that touching the cheeks of young children gently will excite ſmiling.

Friction alſo occaſions many automatic motions in young children, as may be obſerved when their naked bodies, or hairy ſcalps, are rubbed by the nurſe's hand; the motion being determined in theſe caſes, as appears, by the ſtrength and vicinity of the muſcles.

The contraction of the hand in young children, which has been taken notice of already, may be excited by titillation, friction, and almoſt any impreſſion on the palm; and is to be deduced partly from the ſuperior ſtrength of the flexors here, partly from the exquiſite ſenſibility of the palm. The contraction of the foot from impreſſions made on the ſole is analogous to that of the hand.

It may not perhaps be amiſs to add here, that the cellular ſubſtance intervenes leſs between the ſkin and ſubjacent muſcles in the ſcalp, palm, and ſole, than in other parts,

parts, as appears both from anatomical inſpection and emphyſemas; and that this may increaſe the influence of the impreſſions on theſe parts over the ſubjacent muſcles.

PROP. XXXVI.

To explain the Manner, in which the automatic Motions, mentioned in the laſt Propoſition, are converted into voluntary and ſemivoluntary ones.

THIS has been done, in ſome meaſure, already, in reſpect of the actions of crying, and contracting the hand, and their derivatives, ſpeaking and handling; and will be done more completely hereafter in a propoſition appropriated to the diſtinct conſideration of the motions that are perfectly voluntary. I have therefore inſerted the preſent propoſition chiefly for the ſake of regularity, and that the reader might have in one ſhort view, from the propoſitions of this ſection, all the principal heads of inquiry relating to the ſenſe of feeling.

It may not, however, be improper here to obſerve, that the great variety of frictions, flexures, and poſitions, which nurſes give to young children, make a proportional variety of combinations of muſcles which act together; and that theſe, by oppoſing the natural ones from juxtapoſition, derivation of nerves, &c. to a certain degree, prepare the way for ſuch voluntary combinations, as are requiſite in the future incidents of life.

SECT. II.

OF THE SENSE OF TASTE.

PROP. XXXVII.

To aſſign the Extent of the Organ of Taſte, and to explain, in general, the different Powers lodged in the different Parts of it.

THE taſte may be diſtinguiſhed into two kinds, as before obſerved of feeling, viz. the particular exquiſite one, which reſides in the tongue, and eſpecially in the tip of it; and the general one, which extends itſelf to the inſides of the lips and cheeks, to the palate, *fauces*, *oeſophagus*, ſtomach, and whole alimentary duct, quite down to the *anus*; the ſenſibility growing perhaps leſs and leſs, perpetually, in going from the ſtomach to the *rectum*. The ſenſibility of the alimentary duct is probably of the ſame kind with, and not much greater in degree than, that of the internal ſurfaces of the gall-bladder, urinary bladder, *pelvis*, ureters, and, in general, of the ſecretory and

excretory veſſels, and of the receptacles belonging to the glands. But I refer the ſenſations of this duct to the taſte, on account of their connection with thoſe of the tongue, in reſpect of their cauſes, uſes, and effects.

As to the particular and ſuperior powers of the tongue, they may, in part, be deduced from the number and largeneſs of its *papillæ*, and from their riſing above the ſurface in living perſons more remarkably than any other ſentient *papillæ* in the whole body, ſo as to be extreme parts in an eminent degree. To which we ought perhaps to add, that the tip and ſides, in which the taſte is moſt exquiſite, are alſo extreme parts. But there may be likewiſe a different peculiar diſtribution, and other cauſes of an exquiſite ſenſibility, in the nerves of the tongue.

It deſerves notice here, that the friction of the tongue againſt the palate is neceſſary, in order to excite the taſtes of the aliments, which we maſticate, in perfection. This practice is analogous to that of rubbing the ends of the fingers upon ſuch bodies as we examine accurately by feeling; and both appear ſuitable to the notion of vibrations; alſo to that of the diſtention and erection of the ſentient *papillæ:* which may even be ſeen in the *papillæ* of the tongue.

It has been obſerved, that bitters and acids applied to funguſes of the brain, and even to iſſues upon the *vertex*, have ſometimes occaſioned the ſenſations of the taſtes reſpectively ariſing from the ſame bitters and acids, when applied to the tongue. This may perhaps be ſolved by ſuppoſing, that the bitters and acids, when applied to the nerves of the fifth pair, in the funguſes of the brain, and to thoſe of the ſeventh, or perhaps of the fifth alſo, in the iſſues (for the fifth pair may tranſmit ſome branches to the external integuments from the *dura mater*, at the *vertex*), ſend up their own ſpecific vibrations into thoſe regions of the brain, which are the peculiar reſidence of taſtes, *i. e.* to the regions which correſpond to the fifth pair, according to ſome anatomiſts. And theſe ſenſations may even afford ſome evidence, that the fifth pair, not the ninth, ſupplies the tongue with ſenſory nerves.

PROP. XXXVIII.

To examine how far the Phænomena of Taſtes, and their ſpecific Differences, are ſuitable to the Doctrine of Vibrations.

Here I obſerve, firſt, that heating any ſapid liquid increaſes its taſte, eſpecially if it be of the bitter, ſpirituous, or acrid kind; and, converſely, that the impreſſion of ſuch taſtes generates a heat in the organ, which remains after the peculiar taſte ceaſes. Now this connection of certain taſtes with heat is ſome preſumption, that they ariſe from vibrations, provided we allow heat to ariſe from them, according to the common opinion.

Secondly,

Secondly, Since diſagreeable taſtes muſt, according to the account of pain given above, ariſe from ſuch a violence in the vibrations excited, as produce the ſolution of continuity, and pleaſant taſtes, from more moderate degrees of vibrations, which, though they approach to the ſolution of continuity, yet fall ſhort of it; the pains of taſte muſt proceed from ſtronger vibrations than the pleaſures. And, agreeably to this, bodies which impreſs very active and diſagreeable taſtes, manifeſt great activity in other trials, for the moſt part.

Thirdly, It is very difficult to give any plauſible account of the great variety of pleaſant and unpleaſant taſtes from the doctrine of vibrations. However, the different frequency of vibrations, which belongs to the ſmall particles of different ſapid bodies, may be, in a good meaſure, the ſource of this great variety. For if the particles of the body *A* oſcillate twice, while thoſe of the body *B* oſcillate only once, the ſenſations excited by them may be different, though both fall within the limits of pleaſure, or both paſs into thoſe of pain. The differences of degree may alſo contribute; for it is obſervable, that different diſagreeable taſtes, in declining, leave agreeable ones, which approach to each other. This I have experienced in aloes, lime, and green tea not ſweetened. It may therefore be, that the different diſagreeable taſtes were ſuch rather on account of degree than kind. And, upon the whole, it may be, that the ſeveral combinations of the differences of kind with thoſe of degree may be ſufficient in number to account for all the varieties and ſpecific differences of taſtes.

Fourthly, Taſtes appear to be more different than they are from the odours which accompany ſome of them. And this obſervation, by reducing the number of taſtes properly ſo called, does ſomewhat leſſen the difficulty of accounting for their number. But then it is alſo to be obſerved, that part of this difficulty is to be transferred to the head of odours.

Fifthly, The power of diſtinguiſhing taſtes ſeems to depend upon ſight, to a certain degree. And this conſideration alſo leſſens the number of taſtes properly ſo called.

Sixthly, If we ſuppoſe the ſapid body to conſiſt of particles, that excite vibrations of different frequencies, which may be the caſe of many bodies in their natural ſtate, and probably muſt be with ſuch as are compounded by art, compound medicines for inſtance, a great variety of taſtes may ariſe, ſome reſembling the taſtes of ſimple bodies, others totally unlike theſe: juſt as ſome of the colours reflected by natural and artificial bodies reſemble one or other of the ſimple primary ones, whilſt others are colours that can ſcarce be referred to any of theſe. And we may farther ſuppoſe, in both caſes, that where the vibrations approach ſo near, in frequency as to over-rule each other, and produce one ſpecies only, there reſults a taſte, or a colour, that reſembles a primary one; whereas, if the vibrations differ ſo much in frequency, as that two or more principal ſpecieſes keep their own frequency, the taſte, or colour, generated from them, cannot be likened to any primary one.

Seventhly,

Seventhly, That there are different ſpecieſes of vibrations, which yet all conſtitute ſweet or bitter, I conjecture not only from the foregoing general reaſoning, but alſo becauſe there are both ſweets and bitters in all the three kingdoms, animal, vegetable, and mineral. Thus milk, ſugar, and *ſaccharum ſaturni*, all yield a ſweet taſte; gall, aloes, and cryſtals of ſilver, all a bitter one.

Eighthly, Some differences of taſte may ariſe from the different time required for the ſolution, and conſequent activity, of the ſapid particles, alſo from the different local effect which they may have upon the *papillæ*, when abſorbed by their venous veſſels, &c.

Ninthly, Very nauſeous and ſtupefacient taſtes may perhaps ariſe from violent and irregular vibrations, and bear ſome analogy to the ſenſation, or want of it, impreſſed by the ſtroke of the *torpedo*.

Tenthly, It ſeems to deſerve particular conſideration here, that milk, and the fleſh of certain domeſtic animals, yield taſtes, which are naturally and originally pleaſant, to a conſiderable degree, and yet not in exceſs, as ſugar, and other very ſweet bodies, are. For it is reaſonable to conclude, that the particles of milk, and common fleſh-meats, muſt agree very much in the ſtrength and frequency of vibrations with the particles of our own ſolids and fluids. They may therefore juſt moderately increaſe the natural vibrations of the organ, when applied thereto, and enforced by ſuction, maſtication, and friction of the tongue againſt the palate. For the ſame reaſons we may gueſs, that the common diet of animals does not undergo very great changes, in reſpect of the vibratory motions of its particles, from its circulation, and conſequent aſſimilation. However, there are ſome eminent inſtances to the contrary, eſpecially in poiſons. Theſe laſt obſervations may be extended to vegetables, ſalutary and poiſonous reſpectively.

Eleventhly, Some acrid taſtes, that of muſtard for inſtance, affect the tip of the *uvula*, and the edge of the ſoft palate, in a particular manner. Now this may a little confirm the conjectures above made concerning the ſenſibility and irritability of extreme parts.

Twelfthly, It is eaſy to conceive, upon the principles of theſe papers, how ſweets and bitters of an inferior degree ſhould render thoſe of a ſuperior one leſs affecting, reſpectively, as they are found to do.

The foregoing articles are only imperfect conjectures, and do not even approach to a ſatisfactory ſolution. They may juſt ſerve to ſhew, that the doctrine of vibrations is as ſuitable to the phænomena of taſtes, as any other hypotheſis yet propoſed. The following methods may perhaps be of ſome uſe for the analyſis of taſtes.

Firſt, To make trials upon bodies whoſe particles ſeem ſimilar to each other. Such are perhaps diſtilled ſpirits, acid, alkaline, and fermented; alſo ſalts, and oils; but they

they muſt all be ſufficiently purified by repeated diſtillations, ſolutions, and ſuch-like chemical operations; elſe we are ſure, that their component particles are heterogeneous.

Secondly, to note the changes of taſte in chemical operations, and compare them with the changes of colour; which laſt, by diſcovering the ſizes of the particles, may determine many things relating to their mutual actions. The ſolutions of metals in acids, by affording many ſingular and vivid taſtes, and ſometimes colours, ſeem to deſerve eſpecial notice here.

Thirdly, There are many regular changes in natural bodies, which, by compariſon with other phænomena, may be of uſe. Thus it is remarkable, that the juice of many or moſt fruits is firſt acid, *i. e.* whilſt unripe, then ſweet, then vinous, after the firſt fermentation, then acid again, after the ſecond fermentation.

This inquiry is of great importance in medicine and philoſophy. And the theory of taſtes appears capable of becoming a principal guide in diſcovering the mutual actions of the ſmall particles of bodies. The difficulty is to make a beginning. This theory may not perhaps be more complex than that of colours; one may, at leaſt, affirm, that the theory of colours appeared as complex and intricate before Sir *Iſaac Newton*'s time, as that of taſtes does now; which is ſome encouragement to make an attempt.

PROP. XXXIX.

To examine how far the ſeveral Senſations, which affect the Stomach and Bowels, may be explained agreeably to the Doctrine of Vibrations.

It will eaſily be conceived, that if taſtes, properly ſo called (of which under the laſt propoſition), favour, or ſuit with, the doctrine of vibrations, the ſenſations of the ſtomach and bowels may likewiſe. But a particular examination of theſe ſenſations, and compariſon of them with taſtes, will make this more evident.

Firſt, then, we may obſerve, that the ſtomach is leſs ſenſible than the tongue, the bowels in general than the ſtomach, and the inferior bowels than the ſuperior. Thus opium, and bitters, and ſometimes ſpirituous liquors are diſagreeable to the tongue, but fall within the limits of pleaſure in the ſtomach. Thus bile is extremely nauſeous in the mouth, and offends even the ſtomach; but it cannot be diſagreeable to the *duodenum*, which it firſt enters, or the bowels, through which it paſſes. Thus alſo the *fæces* ſeem to be equally ſuited to the ſeveral bowels along which they deſcend, though they grow perpetually more putrid and acrimonious in their deſcent, *i. e.* there is an abatement of ſenſibility in the bowels, which correſponds to the increaſe of acrimony in *fæces*.

If it be objected here, that honey, *mercurius dulcis*, &c. offend the ſtomach and bowels often, though pleaſant or inſipid in the mouth, I anſwer, that ſuch bodies require time, heat, ſolution, &c. before the whole of their qualities can be exerted.

Secondly,

Secondly, The particular manner in which opiates, fermented liquors, grateful aliments, and narcotics, may act firſt upon the ſtomach and bowels, and afterwards upon the whole body, agreeably to the doctrine of vibrations, has been given above in treating of ſleep.

Thirdly, The action of vomits, purges, and acrid poiſons, ſuch as corroſive ſublimate, is very reconcilable to this doctrine, by only ſuppoſing, that they excite very vigorous vibrations, and that theſe are communicated to the muſcular coats of the ſtomach and bowels, to the muſcles of the *abdomen*, and, in violent caſes, to the whole muſcular and nervous ſyſtem. I ſhall conſider the automatic motions, which ariſe from theſe cauſes, below, under a particular propoſition. It may ſerve to ſhew the analogy of the ſenſations, and the general nature of active medicines, to obſerve, that theſe will often operate in ſeveral ways, viz. as vomits, purges, diuretics, diaphoretics, ſternutatories, veſicatories, and corroſives, by a change of application and circumſtances.

Fourthly, Since the meats, to which particular perſons have an antipathy, and from which they receive violent ill effects, are, in general, highly grateful to others, one may perhaps conjecture, that the vibrations excited by theſe meats in the ſtomachs of thoſe who have an antipathy to them, do but juſt paſs the limits of pleaſure; ſo as to diffuſe themſelves much farther, and more powerfully, than if the firſt impreſſion was very painful.

Laſtly, The connection between the ſenſations of the tongue and ſtomach, and conſequently between the manners of explaining them, may be inferred from the office of the taſte, as a guide and guard to the organs of digeſtion; which is very evident, in general, in all animals, notwithſtanding a few exceptions, more eſpecially in men.

PROP. XL.

To examine how far the Phænomena of Hunger are agreeable to the Doctrine of Vibrations.

Natural hunger may be reckoned a pleaſure in its firſt riſe, and to paſs into a pain only by increaſe and continuance. We may ſuppoſe therefore, that during hunger the nerves of the ſtomach are ſo irritable, as that the common motions of the muſcular coat, and the impreſſions made by its contents, in conſequence of theſe motions, excite ſuch vigorous vibrations, as firſt lie within the limits of pleaſure, and afterwards paſs into the limits of pain. And when the ſight of food, or any other aſſociated circumſtance, increaſes the ſenſe of hunger inſtantaneouſly, it may be conjectured to do ſo, in great meaſure, by increaſing the contractions of the muſcular coat of the ſtomach.

But

But the ſenſibility and irritability of the nerves of the tongue are alſo increaſed by hunger; for common aliments yield a very different taſte, according as the perſon is ſatiated or hungry. And it is probable farther, that the nerves of the upper part of the bowels ſympathize with thoſe of the ſtomach in hunger; and increaſe the uneaſy ſenſation, in violent degrees of it.

Let us now conſider in what way food may be ſuppoſed to leſſen this ſenſibility and irritability of the nerves of the tongue, ſtomach and bowels; and how abſtinence, bitters, wines, &c. may increaſe them, upon the principles of theſe papers.

Firſt, then, As the ſmall abſorbing veſſels in the mouth, ſtomach, and bowels, muſt, after eating for ſome time, be ſaturated with alimentary particles, thoſe that are now applied will ſcarce make any impreſſion for want of a ſufficient attraction.

Secondly, Such as are attracted cannot make any conſiderable difference of vibrations, becauſe the vibrations which they are qualified to excite, do already take place. And theſe two remarks, put together, ſhew, that a perſon may reliſh a ſecond kind of food after being ſatiated with a firſt.

Thirdly, The actions of maſtication, deglutition, and digeſtion, exhauſt the neighbouring glands and glandular receptacles of their liquids, and the neighbouring muſcular fibres, of their ready power of contracting: theſe parts are therefore no longer ſuſceptible of a pleaſurable ſtate, or only in a low degree.

Fourthly, Abſtinence reverſes all theſe ſteps; in which, however, the perpetual affuſion, dilution, and ablution of the ſaliva has a conſiderable ſhare. And thus after a proper interval the organs return to a ſtate of great ſenſibility and irritability.

Fifthly, Bitters and acids exhibited in a moderate degree ſeem gently to increaſe the vibratory motions, and raiſe them before the due time to the degree that correſponds to hunger. A ſmall quantity of food has the ſame effect, alſo agreeable emotions of mind, freſh air, exerciſe, and many other things. But if the bitters, acids, &c. be carried beyond a certain degree, they occaſion pain or ſickneſs, which is very agreeable to the doctrine of vibrations, as laid down in theſe papers.

Sixthly, In fevers the mouth, *fauces*, *oeſophagus*, and ſtomach, are hot, dry, inflamed, and incruſted. They are therefore preoccupied by vibrations of a kind quite different from thoſe which attend hunger, and therefore exclude this ſtate.

It may not be amiſs to obſerve here, that the ſenſation of hunger is a guide and guard to the organs of digeſtion in a ſtill more eminent degree, than the taſtes of the ſeveral aliments.

PROP. XLI.

To examine how far the Phænomena of Thirſt are agreeable to the Doctrine of Vibrations.

THIRST is oppoſite to hunger, and is a general attendant upon fevers. It follows alſo, in an evident manner from all conſiderable degrees of heat in the *fauces*. The

nerves therefore of the mouth, *fauces*, *oeſophagus*, and ſtomach, are, during thirſt, preoccupied by diſagreeable vibrations, of the inflammatory kind, as above obſerved. And as the pleaſures of taſte may be ſaid to reſemble thoſe of titillation, ſo thirſt ſeems allied to itching.

It is agreeable to this account of thirſt, that liquors actually cold afford immediate relief; alſo that warm diluents, which ſoften the parts, and waſh off acrimonious particles, do it after ſome time. As the cauſe of thirſt is of a permanent nature in fevers, it muſt return again and again, till the fever be removed. Gentle acids yield a pleaſure in thirſt, which ſeems to correſpond to that which ſcratching excites in parts, that itch previouſly.

PROP. XLII.

To examine how far the Changes generally made in the Taſte, in paſſing from Infancy to old Age, are agreeable to the Doctrines of Vibrations and Aſſociation.

Some of theſe changes are,

That ſweets generally grow leſs and leſs agreeable, and ſometimes even diſagreeable, or nauſeous at laſt.

That aſtringent, acid, and ſpirituous liquids, which diſpleaſe at firſt, afterwards become highly grateful.

That even bitters and acrids firſt loſe their offenſive qualities, and after a ſufficient repetition give a reliſh to our aliment.

And that many particular foods and medicines become either extremely pleaſant or diſguſting, from aſſociations with faſhion, joy, hope of advantage, hunger, the pleaſures of cheerful converſation, &c. or with ſickneſs, vomitings, gripings, fear, ſorrow, &c.

Now, in order to account for theſe changes, we may conſider the following things.

Firſt, That the organs become leſs and leſs ſenſible by age, from the growing calloſity and rigidity of all the parts of animal bodies. The pleaſant ſavours may therefore be expected to become leſs pleaſant, and the moderately diſagreeable ones to fall down within the limits of pleaſure, upon this account.

Secondly, The diſpoſition to vibrations in the organ and correſponding part of the brain muſt alſo receive ſome alteration by the frequent repetition of impreſſions. For though this returns, at a proper diſtance from each meal, to its former ſtate, within an indefinite diſtance, as one may ſay, yet ſome difference there probably is, upon the whole, which in a ſufficient length of time amounts to a perceptible one. However, we muſt alſo ſuppoſe on the other hand, that the make of the nervous ſyſtem ſets ſome bounds to this gradual alteration in the diſpoſition to vibrate; elſe the taſte would be much more variable than it is, and continue to change more after adult age, than it is found

found to do in fact. It may perhaps change faſter in the uſe of a high diet than of a low one; which would be an evidence of the reality of the cauſe here aſſigned.

Thirdly, The pleaſant and painful impreſſions which particular foods and medicines make upon the ſtomach, always either accompany the taſte, or follow it in a ſhort time; and by this means an aſſociation is formed, whereby the direct pleaſantneſs or nauſeouſneſs of the taſte is enhanced, if the impreſſions upon the tongue and ſtomach be of the ſame kind; or diminiſhed, and perhaps overpowered, and even converted into its oppoſite, if they be of different kinds. For if the two impreſſions A and B, made upon the tongue and ſtomach reſpectively, be repeated together for a ſufficient number of times, b will always attend A upon the firſt moment of its being made. If therefore B be of ſuch a magnitude as to leave a trace b ſufficiently great, the addition of this trace b to A, the impreſſion made upon the tongue, may produce all the changes in it above-mentioned, according to their ſeveral natures and proportions. This follows from the doctrine of aſſociation, as it takes place in general; but here the free propagation of vibrations from the ſtomach to the mouth, along the ſurface of the membranes, adds a particular force. In like manner a diſagreeable taſte, by being often mixed with a pleaſant one, may at laſt become pleaſant alone, and *vice verſa*: hunger and ſatiety may alſo, by being joined with particular taſtes, contribute greatly to augment or abate their reliſh. And I believe it is by the methods of this third kind, that the chief and moſt uſual changes in the taſte are made.

Fourthly, the changes which are made by aſſociations with mental pleaſures and pains, or bodily ones not belonging to this organ, as with fine colours, muſic, &c. receive a like explication as the laſt-mentioned inſtances of aſſociations. Here the pleaſure excited in the eye or ear over-rules the taſte at firſt: afterwards we may ſuppoſe the organ to be ſo altered by degrees, in reſpect of the diſagreeable taſte, from its frequent impreſſion, or other cauſe, as to have the ſolution of continuity no longer occaſioned by its action. It is probable alſo, that evaneſcent pleaſures of ſight and hearing, at leaſt pleaſant vibrations in the parts of the brain correſponding to theſe two organs, accompany theſe taſtes ever afterwards.

It may be obſerved here, that the deſire of particular foods and liquors is much more influenced by the aſſociated circumſtances, than their taſtes, it being very common for theſe circumſtances, particularly the ſight or ſmell of the food or liquor, to prevail againſt men's better judgment, directing them to forbear, and warning them of the miſchiefs likely to ariſe from ſelf-indulgence.

PROP. XLIII.

To examine how far the Longings of pregnant Women are agreeable to the Doctrines of Vibrations and Aſſociation.

HERE we muſt lay down previouſly, that the *uterus* is in a ſtate of diſtention during pregnancy; and that it propagates ſympathetic influences by means of nervous communications to the ſtomach, ſo as to put it into a ſtate of great ſenſibility and irritability. All this will be eaſily acknowledged.

It follows therefore, ſince the limits of pleaſure and pain are contiguous, that the ſtomach during pregnancy may at ſome times have an eager appetite for food, as well as a nauſea at others; that this appetite may be the more eager, becauſe it borders upon a nauſea; and that it will no more anſwer to the uſual exigences and circumſtances of the body, than the nauſea does. The ſame eager appetite will bring up the ideas of various aliments from prior aſſociations; and if a new aſſociation of it, when particularly eager, happens to be made with this or that food or liquor, the ſympathetic eager appetite will ever after bring in the idea of that food or liquor, and adhere inſeparably to it. The ſame eager appetite may alſo be transferred upon ſomething that is not properly a food, from its exorbitant nature, prior nauſeas in reſpect of common food, and accidental joint appearance. And, upon the whole, the uſual circumſtances attending the longings of pregnant women are deducible from aſſociation, and are as agreeable to the doctrine of vibrations, as to any other yet propoſed; or even more ſo.

It may illuſtrate this account to obſerve, that, in the uſual caſes of melancholy madneſs, an uneaſy ſtate ſeems to be introduced into the white medullary ſubſtance of the brain by the degeneration of the humours, or other ſuch like mechanical cauſe, which carries the vibrations within the limits of pain, and raiſes an inflammation *ſui generis* in the infiniteſimal veſſels of the medullary ſubſtance; that ideas of objects of fear, ſorrow, &c. are raiſed, in conſequence of this, by means of prior aſſociations; and that, after ſome time, ſome one of theſe, by happening to be preſented oftener than the reſt, by falling more in with the bodily indiſpoſition, &c. overpowers all the reſt, excites and is excited by the bodily ſtate of fear, ſorrow, &c. till at laſt the perſon becomes quite irrational in reſpect of this one idea, and its immediate and cloſe aſſociates, however rational he may be in other reſpects. And a like account may be given of the violent particular deſire towards a perſon of a different ſex, where this deſire reſts chiefly in the ſenſual gratification, and the beauty of the perſon. And all theſe three inſtances ſeem to me to favour the doctrine of vibrations a little, as well as that of aſſociation very much.

PROP. XLIV.

To explain in what Manner and to what Degree, pleaſant and unpleaſant Taſtes contribute, according to the Doctrine of Aſſociation, to form our intellectual Pleaſures and Pains.

THE pleaſures of the Taſte, conſidered as extending itſelf from the mouth through the whole alimentary duct, are very conſiderable, and frequently repeated; they muſt therefore be one chief means, by which pleaſurable ſtates are introduced into the brain, and nervous ſyſtem. Theſe pleaſurable ſtates muſt, after ſome time, leave miniatures of themſelves, ſufficiently ſtrong to be called up upon ſlight occaſions, viz. from a variety of aſſociations with the common viſible and audible objects, and to illuminate theſe, and their ideas. When groups of theſe miniatures have been long and cloſely connected with particular objects, they coaleſce into one complex idea, appearing, however, to be a ſimple one; and ſo begin to be transferred upon other objects, and even upon taſtes back again, and ſo on without limits. And from this way of reaſoning it may now appear, that a great part of our intellectual pleaſures are ultimately deducible from thoſe of taſte; and that one principal final cauſe of the greatneſs and conſtant recurrency of theſe pleaſures, from our firſt infancy to the extremity of old age, is to introduce and keep up pleaſurable ſtates in the brain, and to connect them with foreign objects.

The ſocial pleaſures ſeem, in a particular manner, to be derived from this ſource; ſince it has been cuſtomary in all ages and nations, and is, in a manner, neceſſary, that we ſhould enjoy the pleaſures of taſte in conjunction with our relatives, friends, and neighbours.

In like manner, nauſeous taſtes, and painful impreſſions upon the alimentary duct, give riſe and ſtrength to mental pains. The moſt common of theſe painful impreſſions is that from exceſs, and the conſequent indigeſtion. This excites and ſupports thoſe uneaſy ſtates, which attend upon melancholy, fear, and ſorrow.

It appears alſo to me, that theſe ſtates are introduced, in a great degree, during ſleep, during the frightful dreams, agitations, and oppreſſions, that exceſs in diet occaſions in the night. Theſe dreams and diſorders are often forgotten; but the uneaſy ſtates of body, which then happen, leave veſtiges of themſelves, which increaſe in number and ſtrength every day from the continuance of the cauſe, till at laſt they are ready to be called up in crowds upon ſlight occaſions, and the unhappy perſon is unexpectedly, and at once, as it were, ſeized with a great degree of the hypochondriac diſtemper, the obvious cauſe appearing no ways proportionable to the effect. And thus it may appear, that there ought to be a great reciprocal influence between the mind and alimentary duct, agreeably to common obſervation; which is farther confirmed by the very large number of nerves diſtributed there.

PROP.

PROP. XLV.

To give an Account of the Ideas generated by the ſeveral Taſtes.

As the pleaſures of taſte are in general greater than thoſe of feeling, and the pains in general leſs, it follows that the ideas which are affixed to the ſeveral words expreſſing the ſeveral pleaſant and unpleaſant taſtes, will be of a middle nature in reſpect of the ideas generated by tangible impreſſions; and lie between the ideas of the pains of feeling, and thoſe of its pleaſures.

Agreeably to this, it ſeems very difficult, or even impoſſible, to excite a genuine vivid, miniature of an acid, ſweet, ſalt, or bitter taſte, by the mere force of imagination. However, the vibrations peculiar to each of theſe leave ſuch veſtiges of themſelves, ſuch an effect in the tongue, and correſponding parts of the brain, as, upon taſting the qualities themſelves, at once to bring up the names whereby they are expreſſed, with many other aſſociated circumſtances, particularly the viſible appearances of the bodies endued with theſe qualities. And theſe veſtiges may be called ideas. Analogy leads us alſo to conclude, as before obſerved under feeling, that ſome faint veſtiges or ideas muſt be raiſed in the parts of the brain correſponding to the tongue, upon the mere paſſage, of each word, that expreſſes a remarkable taſte, over the ear. And, when the imagination is aſſiſted by the actual ſight or ſmell of a highly grateful food, we ſeem able to raiſe an idea of a perceptible magnitude. This is confirmed by the manifeſt effect exerted upon the mouth, and its glands, in ſuch caſes.

The ſight of what we eat or drink ſeems alſo, in ſeveral inſtances, to enable us to judge more accurately of the taſte and flavour; which ought to be effected, according to this theory, by raiſing ſmall ideas of the taſte and flavour, and magnifying the real impreſſions in conſequence thereof. For an actual impreſſion muſt excite vibrations conſiderably different, according to the difference in the previous ones; and where the previous ones are of the ſame kind with thoſe impreſſed, the laſt muſt be magnified.

PROP. XLVI.

To explain the automatic Motions, which ariſe from the Impreſſions made on the Organ of Taſte.

THE motions dependent on the ſenſations of the tongue, and alimentary duct, may be thus enumerated: ſuction, maſtication, deglutition, the diſtortion of the mouth and face in conſequence of nauſeous taſtes, the periſtaltic motion of the ſtomach and bowels, vomiting *ructus*, hiccough, ſpaſms, and violent motions in the bowels, the motions which empty the neighbouring glands, and the expulſion of the *fæces*.

Firſt,

Firſt, then, Suction in new born children appears to depend chiefly on the ſenſations of the lips and tongue. I ſay *chiefly*, becauſe ſome prediſpoſition thereto may be generated *in utero*, or otherwiſe impreſſed, and the great aptneſs of new-born children in ſucking ſeems to favour this. However, when we conſider, that the impreſſions of the cold air upon the lips and mouth in its paſſage to the lungs, of the nipple upon the lips, and of the milk upon the tongue, ought to excite motions in the neighbouring muſcles of the lips, and lower jaw; that the motions which concur to the action of ſuction, are ſuch as might be expected from theſe cauſes; and even that the motions of the head and neck, by which the child indicates the want of a breaſt, may flow from the great ſenſibility and irritability of theſe parts, when the child is hungry; a preſumption ariſes, that the whole action of ſuction, with all its circumſtances, is excited by the impreſſions mechanically or automatically; and that by the running of vibrations from the ſenſory nerves into the neighbouring motory ones.

Secondly, The firſt rudiments of the action of maſtication are derived from that of ſuction, *i. e.* from the alternate motion of the lower jaw neceſſary to ſqueeze out the milk. After this action has been excited for ſome time by the taſte of the milk, it will return with ſufficient facility from the impreſſions made by ſolid food; and the ſame impreſſions may excite other motions in the muſcles of the tongue and cheeks, viz. thoſe which concur to make the action of maſtication in its imperfect and automatic ſtate.

Thirdly, It may appear in like manner, that the pleaſurable impreſſions of the milk upon the tongue, mouth, and *fauces*, of new-born children, may excite thoſe motions of the muſcles of the tongue, *os hyoides*, ſoft palate, and *fauces*, which make the action of deglutition; and conſequently, that this is deducible from ſenſation automatically.

It confirms this poſition, that, according to the theory of theſe papers, the ſoft palate ought to be drawn down by the impreſſions made on the tongue and mouth, not drawn up; ſince this laſt would be to ſuppoſe the ſenſory vibrations to paſs over muſcles that are near, and run to thoſe at a diſtance, which is abſurd. For *Albinus* has proved, both from anatomy, and the obſervation of the fact, that the ſoft palate is drawn down in ſwallowing; not up, according to the opinion of *Boerhaave*.

It confirms it alſo, that nauſeous liquids are immediately and mechanically rejected by young children; the impreſſions ariſing from them producing ſuch a contraction as ſhuts the paſſage.

It confirms it ſtill farther, that young children do not ſwallow their *ſaliva*. For this makes no impreſſion ſufficient to generate the action of deglutition in an automatic way.

We may conjecture here, that the common vibrations, excited in the membrane of the mouth and *fauces*, grow particularly ſtrong at the tip of the *uvula*; and that a greater power of contraction is tranſmitted to the neighbouring muſcles upon this account.

Fourthly,

Fourthly, It may be obſerved, that nauſeous taſtes diſtort the mouth and face automatically, not only in young children, but even in adults. And for the ſame reaſon, pleaſant ones ought to have a leſs effect, of the ſame kind; as they ſeem to have. And I conjecture, that the diſtortions of the face, which attend grief, alſo the gentle, ſmiling motions, which attend joy, are, in part, deducible from this ſource.

I conjecture alſo, that the *riſus ſardonius*, and the tendency to laughter, which ſome perſons obſerve in themſelves in going to ſleep, have a relation to the forementioned motions of the face. As the muſcles here conſidered are, in great meaſure, cutaneous, they will on this account, be more ſubject to vibrations excited in the mouth, or which run up to it from the ſtomach.

Fifthly, It may eaſily be conceived, that the impreſſions, which the aliment and *fæces* make upon the ſtomach and bowels, may excite the periſtaltic motion in their muſcular coats. It only remains to ſhew, why this ſhould tend downwards. Now, for this, we may aſſign the following reaſons. Firſt, That the action of ſwallowing determines that of the ſtomach to move the ſame way with itſelf, *i. e.* downwards; and that this determination may, in common caſes, carry its influence as far as the great guts. Secondly, That the contraction of the upper orifice of the ſtomach may ſtop the waves that ſometimes come upwards in the ſtomach, and return them back, ſo as to force open the *pylorus* where that is leſs contracted; as on the other hand, where the *pylorus* is more contracted than the upper orifice, the motion of the ſtomach is inverted, and there ariſes a diſpoſition to *ructus* or vomiting. Thirdly, That, when waves aſcend in the lower bowels, a gentle contraction in the *pylorus* may be ſufficient to ſtop and return them. Fourthly, That one principal uſe of the *cæcum* and *appendicula vermiformis*, which laſt is an extreme and pointed part, ſeems to be, to return the waves, which the conſtriction of the *anus* may ſend upwards. And the effects of glyſters and ſuppoſitories in procuring ſtools, *i. e.* in putting the whole *colon* into motion, agree well with this uſe of the *cæcum*, and *appendicula vermiformis*. It agrees alſo with all the reaſoning of this paragraph, that when a ſtoppage is made any where in the bowels by an inflammation, ſpaſm, ſtrangulation from a rupture, &c. the periſtaltic motion is inverted.

I have been informed, that in a perſon who had ſome inches of the *ilium* hanging out of his body, ſo that the periſtaltic motion might be viewed, the leaſt touch of a foreign body would ſtop this motion at once. It agrees with this, that when rabbits are opened alive, the periſtaltic motion does not take place till after ſome time, viz. becauſe the handling of the bowels has checked it. May we not hence ſuſpect, that the fibres of the muſcular coat of the bowels are contracted by an electrical virtue, which paſſes off, and diſappears for a time, upon the touch of non-electrics? Or may we ſuppoſe, that ſuch touches ſtop ſubtle vibrations in the ſmall parts of the fibres?

Sixthly, Since vomiting is excited by diſagreeable and painful impreſſions in the ſtomach, and requires the contraction of the diaphragm, and abdominal muſcles, it agrees

agrees well with the notion, that ſenſory vibrations run into the neighbouring muſcles for contracting them. I ſuppoſe alſo, that both orifices of the ſtomach are ſtrongly contracted, previouſly to vomiting; and that the upper orifice, being moſt ſenſible, is contracted moſt ſtrongly. Hence its power of contraction may be ſoon exhauſted, and conſequently it may open of itſelf in the action of vomiting. However, it may, in ſome caſes, require to be forced open by the ſuperior action of the diaphragm, and abdominal muſcles. Almoſt all great pains and diſorders in the lower belly occaſion vomiting; which is very agreeable to the foregoing notion.

The noſe itches, the mouth flows with water, the lower lip trembles, both are pale, and the perſon yawns, previouſly to vomiting, in many caſes; all which things favour the notion of vibrations running freely along the ſurfaces of membranes.

Ructus, or the expulſion of wind from the ſtomach, is nearly related to vomiting, differing rather in degree than kind. Its ſuitableneſs therefore to the theory of theſe papers muſt be judged of from what has been advanced concerning vomiting.

The hiccough is alſo related to vomiting. It is ſuppoſed to proceed from an irritation at the upper orifice of the ſtomach, cauſing a ſudden contraction of the diaphragm, ſo as to pull down the *pharinx* and *larynx* after it. May it not rather be a ſudden contraction of the inferior or ſmall muſcle of the diaphragm only? This is particularly near the ſuppoſed ſeat of irritation; and upon this ſuppoſition, ſneezing, ſurprize, and all other methods of making the whole diaphragm act together ſtrongly, would remove it, as is obſerved in fact.

Seventhly, Permanent ſpaſms, and violent motions, in the bowels, ariſe in conſequence of uneaſy and painful impreſſions there from indigeſted aliment, acrid *fæces*, irritating purges, poiſons, &c. They are generally attended with the fermentation of the contents of the bowels, and the conſequent generation of air; which, when confined by a ſpaſm on each hand, diſtends the intermediate part of the bowel often to an exceſſive degree, cauſing a proportional degree of painful vibrations. If we ſuppoſe theſe vibrations to check themſelves all at once, by occaſioning a ſudden contraction in the affected membrane, they may be propagated over the whole nervous ſyſtem inſtantaneouſly, and give riſe to the convulſion fits, which happen to young children from gripes, and diſtention of the ſtomach and bowels, and to adults, from poiſons, &c. This is upon ſuppoſition, that neither ſpaſm gives way; for, if either does, the pain goes off, for a time at leaſt, without farther ill ſymptoms. Such pains in the bowels reſemble thoſe in the bladder, when the *detruſor* and *ſphincter* are both contracted violently at the ſame time, by the irritation of a ſtone. The ſtomach, the gall-bladder, and *rectum*, all ſeem capable of like contractions in muſcular fibres, that have oppoſite actions. The cauſes of all theſe ſpaſms and motions are evidently the impreſſions in the neighbourhood, and their circumſtances are, at firſt ſight, agreeable to the theory of theſe papers.

Eighthly, The glands belonging to the mouth, and alimentary duct, appear to me to be emptied, not only by the compreſſion, which the neighbouring muſcles and muſcular fibres make upon them, but alſo by the ſenſory vibrations which run up their excretory ducts, into the *folliculi*, and receptacles where there are ſuch, and even into the ſecretory ducts; by which the periſtaltic motion of all theſe is increaſed, ſo as both to receive more freely from the blood during their ſtate of relaxation, and to ſqueeze more ſtrongly through the excretory ducts during their ſtate of contraction. Thus tobacco, *pyrethrum*, and other acrids, ſolicit a profuſe diſcharge from the ſalival glands, by being barely kept in the mouth, *i. e.* though the neighbouring muſcles do not ſqueeze the glands by the action of maſtication. Thus likewiſe vomits and purges increaſe both the ſecretions of all the glands of the inteſtines, and thoſe of the liver and *pancreas*. It may be alſo, that the vibrations which run up the gall-duct are ſometimes ſo ſtrong as to occaſion a ſpaſm there; in which caſe, if the patient vomits at the ſame time, a ſymptomatic and temporary jaundice may follow.

Ninthly, The expulſion of the *fæces* in new-born children is perfectly automatic, and ſeems to follow even from very gentle compreſſions of the abdominal muſcles, when the *rectum* is full, inaſmuch as the *ſphincter ani* has in *them* ſcarce any force. The ſame may be ſaid of the expulſion of the urine, the *ſphincter veſicæ* being alſo very weak in new-born children. To which we may add, that the leaſt irritation from fulneſs or acrimony in the *rectum* or bladder throws the abdominal muſcles into contraction in young children, both on account of the extreme ſenſibility and irritability of their whole nervous ſyſtems, and becauſe they have, as yet, no aſſociated influences over the muſcles of the *abdomen*, whereby to reſtrain their contractions.

As the ſphincters of the *rectum* and bladder gain ſtrength, more force is required to expel the *fæces* and urine. However, it appears, that theſe muſcles uſually exhauſt themſelves, previouſly to the inſtant of expulſion, thus giving free ſcope to their antagoniſts. For, according to theory, they ought to be contracted ſooner and ſtronger than their antagoniſts, as being nearer to the ſeat of irritation.

The actions of vomiting, and expulſion of the *fæces*, are very nearly related to one another in their automatic ſtate. However, it ſeems to me, that an irritation in the ſtomach produces only a gentle contraction in the *ſphincter ani*, viz. ſuch a one as does not exhauſt its power, and which therefore tends to confine the *fæces*. In like manner, an irritation in the *rectum* may gently contract the upper orifice of the ſtomach. It deſerves notice here, that the *ſphincter ani* lies out of the *peritonæum*; and conſequently, that vibrations cannot run from it to the orifice of the ſtomach along the *peritonæum*, nor *vice verſa*. The ſame obſervation holds in reſpect of the *ſphincter* of the bladder.

The circumſtances attending the excluſion of the *fœtus*, which continues automatic perfectly or nearly, may be much illuſtrated by what is here delivered concerning the expulſion of the *fæces*.

PROP.

PROP. XLVII.

To explain the Manner and Degree in which the automatic Actions, mentioned under the laſt Propoſition, are influenced by voluntary and ſemivoluntary Powers.

When young children continue to ſuck, or maſticate a taſteleſs body put between their lips, or into their mouths, we may conceive, that the actions of ſuction and maſtication begin to paſs from their automatic towards their voluntary ſtate. Drinking out of a veſſel, ſo as to draw up the liquid, is learnt, in part, from ſucking the breaſt, in moſt caſes; but it may be learnt without, as is evident in thoſe children that are dry-nurſed. Maſtication, when it approaches to a perfect ſtate in children, is chiefly voluntary, the firſt rudiments receiving perpetual changes, ſo as to fall in more and more with pleaſure and convenience. See *Prop.* 22. *Cor.* 1. In adults, both ſuction and maſtication follow the command of the will with entire readineſs and facility. The manner in which this is effected has been already explained in treating of the voluntary power of graſping.

Deglutition of inſipid liquors becomes voluntary early. But it is difficult, even for ſome adults, to ſwallow pills and boluſes, though taſteleſs; and very nauſeous liquids are ſometimes rejected by them automatically, as well as by young children. The action of deglutition affords manifeſt evidences of the gradual tranſition of automatic motions into voluntary ones, as well as of voluntary ones into ſuch as are ſecondarily automatic. For, in common caſes, we ſwallow without the leaſt expreſs intention.

When the face of a child or adult is diſtorted upon the ſight of a nauſeous medicine, which has before produced diſtortions automatically, *i. e.* from the impreſſions made on the mouth and *fauces*, we ſee an evident inſtance of the power of aſſociated circumſtances; and may have the conception of voluntary powers, derived from a ſucceſſion of ſuch aſſociations, made eaſy to the imagination.

The periſtaltic motion of the ſtomach and bowels remains automatic to the laſt, depending partly on the vibrations deſcending from the brain, partly on the impreſſions made on the villous coat. It cannot depend on aſſociated circumſtances in its common ſtate, becauſe, being perpetual, it is equally aſſociated with every thing, *i. e.* particularly ſo with nothing. However, as grateful aliments increaſe it, the ſight of them may do the ſame by aſſociation. Could we ſee our ſtomachs and bowels, it is probable, that we ſhould get ſome degree of voluntary power over them.

Vomiting is ſometimes, and a nauſea often, excited by aſſociated circumſtances; and there have been inſtances of perſons who could vomit at pleaſure, by firſt introducing ſome of theſe. But, I ſuppoſe, this action never follows the mere command of the will, without the intervention of ſome ſtrong aſſociated circumſtance. We have, in like manner, a ſemivoluntary power of reſtraining vomiting, for a time at leaſt, by means of ideas of decency, ſhame, fear, &c.

Some perſons have a power of expelling flatulences from the ſtomach in a manner which is almoſt voluntary; and many imitate an automatic hiccough very exactly. It facilitates theſe powers, that both the motions here conſidered are very frequent, eſpecially during childhood. Thoſe who can hiccough voluntarily, attain to it by repeated trials, as in other caſes of voluntary actions.

The ſpaſms, and violent motions of the bowels, cannot be expected to become voluntary. They do, however, ſeem to return, in many caſes, from leſs and leſs bodily cauſes perpetually, on account of aſſociated circumſtances, as has been already remarked.

In like manner, the vibrations which run up the excretory ducts of the glands, muſt be ſuppoſed to remain totally under the influence of their original cauſes; unleſs we except the contraction of the gall-duct, which happens ſometimes in violent fits of anger. This may perhaps ariſe from vibrations excited by aſſociated circumſtances.

Both the power of expelling the *fæces* and urine, and that of checking this expulſion, are under the influence of many aſſociated circumſtances, and voluntary to a conſiderable degree. And it will eaſily appear, from the principles of this theory, that they ought to be ſo. The filling the cheſt with air by the contraction of the muſcles of inſpiration, is a circumſtance which never attends theſe actions in their purely automatic ſtate. Young children learn it by the ſame ſteps as they do other methods of exerting the greateſt force, and to the greateſt advantage. See *Prop.* 22. *Cor.* 1.

It deſerves notice here, that the action of the muſcular coat of the ſtomach and inteſtines is far leſs ſubject to the power of the will, than that of the great fleſhy muſcles of the trunk and limbs. The efficient cauſe of this is the great and immediate dependence which the action of the muſcular coat has upon the ſenſations of the villous, on account of the exquiſiteneſs of theſe ſenſations, their conſtant recurrency, and the contiguity of the coats. And there is a perfect agreement of the final cauſe with the efficient here, as in other caſes. For any great degree of voluntary power over the muſcular coat of the bowels would much diſturb the digeſtion of the aliment as thoſe nervous perſons experience, who are ſo unhappy as to be exceptions to the general rule, through the influence of aſſociated circumſtances.

SECT. III.

OF THE SENSE OF SMELL.

PROP. XLVIII.

To aſſign the Extent of the Organ of Smell, and to explain in general the different Powers of which it is poſſeſſed.

Smell may be diſtinguiſhed into two ſorts: firſt, that exquiſite ſenſation, which odoriferous bodies impreſs upon the noſe by means of alternate inſpiration. This is ſmell, in the peculiar and moſt proper ſenſe of the word; and it reſides chiefly, or perhaps entirely, in that part of the pituitary membrane, which inveſts the cells of the *oſſa ſpongioſa*. Secondly, That ſenſation or flavour, which moſt kinds of aliment and medicines impreſs upon the whole pituitary membrane during maſtication, and juſt after deglutition. And this laſt makes a principal part of the pleaſures and pains which are uſually referred to the taſte. For when a perſon has a cold, *i. e.* when the pituitary membrane is obſtructed and loaded with *mucus*, meats loſe their agreeable flavours; and the ſame thing happens in a *polypus narium*.

Beſides this, it is to be obſerved, that the pituitary membrane has an exquiſite ſenſibility, which may be referred to the head of feeling. For active powders, *i. e.* ſternutatories, ſeem to irritate the membrane of the noſe in the ſame way, as they do a part of the ſkin deprived of the cuticle, only in a greater degree, and more immediately. And thus ſmells themſelves may be referred to the head of feeling; ſince ſtrong ſmells are often obſerved to occaſion ſneezing.

It may alſo be remarked, that as the organ of feeling paſſes inſenſibly into that of taſte, ſo the organ of taſte does into that of ſmell. And theſe three ſenſes have a much greater reſemblance to one another, than any of them has to the ſight, or to the hearing; or than the ſight and hearing have to each other. However, the organ of feeling is diſtinguiſhed from that of taſte by its being covered with the hard cuticle, and the organ of taſte from that of ſmell by the laſt's being extended upon bones; ſo as to be much more ſenſible and irritable upon that account. To which we may add, that as a watery fluid is the proper *menſtruum* for the diſſolution of ſapid particles, and conveyance of their taſtes, ſo ſmells ſeem to make their impreſſions by means of air-particles.

PROP.

PROP. XLIX.

To examine how far the general Phænomena of Smell are agreeable to the Doctrine of Vibrations.

HERE we may obſerve, firſt, that, ſince the ſmells of bodies diffuſe themſelves in general to great diſtances, and in ſome caſes to immenſe ones, the odoriferous particles muſt repel each other; and conſequently be eaſily ſuſceptible of vibratory motions, for the ſame reaſons as the particles of common air, or thoſe of the æther. We may even ſuppoſe, that odoriferous particles are thrown off by vibratory motions in the body that emits them.

May not, however, the odoriferous particles be attracted by the body which emits them, after they have receded from it to a certain diſtance, and ſo follow it, in ſome meaſure, like an atmoſphere? It is hard to account for the ſmall or no diminution of weight in odoriferous bodies, after they have continued to emit ſmells for a long time, but upon ſome ſuch ſuppoſition.

Secondly, Heat, friction, and efferveſcence, are all very apt to excite and increaſe ſmells; and have all a connection with vibratory motions in the judgment of moſt philoſophers.

Thirdly, Since heat and friction excite and increaſe ſmells, theſe may have ſome connection with electricity; which is ſuppoſed by many philoſophers to depend upon vibratory motions. And as air-particles are *electrics per ſe*, they may have, on this account, a peculiar fitneſs for conveying and impreſſing ſmells. May not air-particles, and odoriferous ones, repel each other?

Fourthly, It is uſual, when we deſire to receive a ſmell in full ſtrength and perfection, to make quick, ſhort, alternate inſpirations and expirations. This correſponds to the rubbing the ends of the fingers upon the body to be examined by feeling, and the tongue againſt the palate in taſting. And all theſe three actions appear to be ſome preſumption in favour of the doctrine of vibrations.

Fifthly, The greatneſs and quickneſs of the effect of odours upon the whole nervous ſyſtem ſeem very ſuitable to the doctrine of vibrations. For this muſt be owing to the mere impreſſion of ſome motion, there not being time for the abſorption of particles ſufficient for the effect produced. When ſweet ſmells cauſe a ſudden faintneſs, and *deliquium animi*, they may perhaps agitate the whole ſyſtem of ſmall medullary particles ſo much, as to make them attract each other with ſufficient force to ſtop all vibratory motions; juſt as has been obſerved of the particles of muſcular and membranous fibres. And the ſmells to which a perſon has an antipathy, may have been originally ſweet, or lie ſo near the confines of pleaſure, as to propagate their vibrations much farther than original fetids can. For theſe ſeem to revive from fainting by making a vigorous impreſſion on the noſe, which yet is not propagated freely over the whole

ſyſtem;

ſyſtem; or, if it be, will occaſion immediate ſickneſs and fainting. Fetids in this reſemble other pains, which, if moderate, excite; if very violent, overpower.

If it be objected to this, that ſuch fragrant ſmells, as a perſon has an antipathy to, are diſagreeable to him in the higheſt degree, and that upon the firſt perception; alſo that the ſmell of thoſe fetids, which revive, as of *aſa fœtida*, ſpirit of hartſhorn, &c. is agreeable to many; I anſwer, that theſe two oppoſite changes ſeem to ariſe merely from aſſociation. The faintneſs and revival, attending theſe ſmells reſpectively, muſt, by aſſociation, transfer the veſtiges and miniatures of themſelves upon the firſt perception of the ſmells, whoſe aſſociates they are.

Sixthly, It is agreeable to the notion of vibrations, that ſpirituous liquors, and opium, ſhould produce their appropriated effects by ſmell, as well as by being taken into the ſtomach, as they are found to do in fact. For, if theſe effects ariſe from ſpecific vibrations, the mere impreſſion of ſmall active particles may be ſufficient for the purpoſe of producing them. We muſt, however, ſuppoſe that the exhalations of odoriferous bodies are imbibed in ſome ſmall degree by the abſorbing veſſels of the *membrana ſchneideriana*. We might ſhew by parity of reaſon, that the great ſubtlety of odoriferous *effluvia* favours the doctrine of vibrations.

Though odoriferous particles are more ſubtle than the ſapid ones, yet they are perhaps groſſer than the rays of light. For the ſmoke of a tallow candle ceaſes to ſmell, when it begins to ſhine, *i. e.* when it is more attenuated by heat. Since therefore the vibrations from heat are probably ſmaller than thoſe from light, we may range the vibrations of the medullary ſubſtance in the following order, in reſpect of ſubtlety; heat, light, ſmell, taſte, tangible impreſſions, and the vibrations of the air, from which ſound ariſes. But it is to be obſerved, that theſe laſt may excite much more frequent vibrations in the auditory nerve, than thoſe of the ſounding body, to which they correſpond; juſt as the vibrations from friction are much more numerous, than the ſtrokes of friction; and the tremors of the particles of an anvil much more numerous, than the ſtrokes of the hammer.

PROP. L.

To examine how far the ſpecific Differences of Odours are agreeable to the Doctrine of Vibrations.

This propoſition is analogous to the thirty-eighth, in which the agreement of the ſpecific differences of taſtes with the doctrine of vibrations is conſidered; and may be illuſtrated by it. One may ſay indeed, that taſte and ſmell are ſo nearly allied to each other, that, if one be performed by vibrations, the other muſt alſo. I will repeat two principal obſervations.

Firſt, If the varieties of kind in vibrations be combined with thoſe of degree, we ſhall have a large fund for explaining the various fragrant and fetid ſmells, notwithſtanding

ſtanding that the firſt always agree in falling ſhort of the ſolution of continuity, the laſt in going beyond it.

Secondly, The differences of kind in ſmells are not ſo many as they may appear at firſt ſight, a difference in degree often putting on the appearance of one in kind. Thus an onion cut freſh, and held cloſe to the noſe, ſmells very like *aſa fœtida*; and *aſa fœtida*, in an evaneſcent degree, like onion or garlic. Thus a dunghil at a diſtance has ſmelt like muſk, and a dead dog like elder-flowers. And fetids are ſaid to enhance the flavour of fragrants. The three laſt inſtances ſhew, that pleaſure and pain are very nearly allied to one another in this ſenſe alſo.

PROP. LI.

To explain in what Manner, and to what Degree, pleaſant and unpleaſant Odours contribute, in the Way of Aſſociation, to form our intellectual Pleaſures and Pains.

It will be evident, upon a moderate attention, that the grateful ſmells, with which natural productions abound, have a great ſhare in enlivening many of our ideas, and in the generation of our intellectual pleaſures; which holds particularly in reſpect of thoſe that ariſe from the view of rural objects and ſcenes, and from the repreſentations of them by poetry and painting. This ſource of theſe pleaſures may not indeed be eaſy to be traced up in all the particular caſes; but that it is a ſource, follows neceſſarily from the power of aſſociation.

In like manner, the mental uneaſineſs, which attends ſhame, ideas of indecency, &c. ariſes in a conſiderable degree, from the offenſive ſmells of the excrementitious diſcharges of animal bodies. And it is remarkable in this view, that the *pudenda* are ſituated near the paſſages of the urine and *fæces*, the two moſt offenſive of our excrements.

We may ſuppoſe the intellectual pleaſures and pains, which are deducible from the flavours, grateful and ungrateful, that aſcend behind the *uvula* into the noſe during maſtication, and juſt after deglutition, to have been conſidered in the laſt ſection under the head of taſte, ſince theſe flavours are always eſteemed a part of the taſtes of aliments and medicines. And indeed the olfactory nerves ſeem to have as great a ſhare in conveying to us both the original and derivative pleaſures, which are referred to the taſte, as the nerves of the tongue; which may help us to account for the largeneſs of thoſe nerves in men, to whom ſmell, properly ſo called, is of far leſs conſequence than any other of the ſenſes, and taſte of the greateſt, while yet the nerves of taſte are comparatively ſmall.

We may add here, that the ſmell is a guide and guard placed before the taſte, as that is before the ſtomach, in a great degree in men, but much more ſo in brutes, who have ſcarce any other means, than that of ſmell, whereby to diſtinguiſh what foods are proper for

for them. It is likewiſe probable, that the ſmell is a guard to the lungs; and that the grateful odours of flowers, fruits, and vegetable productions, in general, are an indication of the wholeſomeneſs of country air; as the offenſiveneſs of putrefaction, ſulphureous fumes, &c. warn us beforehand of their miſchievous effects upon the lungs. However, the rule is not univerſal in either caſe.

PROP. LII.

To give an Account of the Ideas generated by the ſeveral Odours.

WHAT has been delivered concerning the ideas of feeling and taſte, may be applied to the ſmell. We cannot, by the power of our will or fancy, raiſe up any miniatures or ideas of particular ſmells, ſo as to perceive them evidently. However, the aſſociated circumſtances ſeem to have ſome power of affecting the organ of ſmell, and the correſponding part of the brain, in a particular manner; whence we are prepared to receive and diſtinguiſh the ſeveral ſmells more readily, and more accurately, on account of the previous influence of theſe aſſociated circumſtances. And, converſely, the actual ſmells of natural bodies enable us to determine them, though we do not ſee them, always negatively, and often poſitively, *i. e.* by ſuggeſting their names, and viſible appearances. And, when we are at a loſs in the laſt reſpect, the name or viſible appearance of the body will immediately revive the connection.

PROP. LIII.

To explain the automatic Motions, which ariſe from the Impreſſions made on the Organ of Smell.

THESE automatic motions are of three kinds, viz. the inſpiration, by which young brute animals, eſpecially quadrupeds, impreſs and increaſe the odours of their reſpective foods; the contraction of the *fauces*, and upper part of the gullet, which ariſes from thoſe agreeable flavours, which aſcend behind the *uvula* into the noſe; and the action of ſneezing.

As to the firſt; it is peculiar to brutes, children not uſing any methods of improving odours, till they are arrived at two or three years of age. The reaſons of this difference may be, that the ſmell in many brutes is the leading ſenſe; that their noſes are long and large, and the *oſſa ſpongioſa* hollowed by innumerable cells; whereas in young children the noſe is depreſſed; the pituitary membrane loaded with *mucus*; and, when they grow up, the acuteneſs of their ſmell is far inferior to that of quadrupeds.

If it be ſaid, that this action is not automatic in brutes, but an inſtinct, which they bring into the world with them; I anſwer, that the nearneſs of the muſcles affected, viz.

thoſe which dilate the noſe, *larynx*, and lungs, to the ſeat of the impreſſion, makes it probable, that the motion depends upon the ſenſation, as in other inſtances mentioned in theſe papers, ſome of which are allowed by all.

It may be, that ſomething of the ſame kind takes place in young children, as ſoon as their ſmell begins to be ſufficiently acute. But it is ſo mixed with, and modelled by, voluntary motions, as to be ſeparately indiſcernible.

The ſecond motion, or the contraction of the *fauces*, and upper part of the *oeſophagus*, from the grateful flavours which aſcend up into the noſtrils behind the *uvula*, is part of the action of deglutition; but it could not properly be mentioned in the laſt ſection, becauſe it ariſes from a ſenſation referred to this.

Ungrateful flavours have often a contrary effect, and extend their influence ſo far as to preclude the paſſage through the gullet, and even throw back the ungrateful liquid or morſel with violence. And we may obſerve, that, in many other caſes alſo, when the pleaſure paſſes into pain, the automatic motion thereon depending paſſes into one of an oppoſite nature; juſt as in algebra, when an affirmative quantity in the *data* is changed into a negative one, a like change is to be made ſometimes, and yet not always, in the concluſion.

It deſerves notice here, that pinching the noſe prevents the perception of theſe flavours, as it ſeems, by checking the vibrations, which would run along the pituitary membrane. When the flavours are very pungent, they fix in the tip of the noſe; or, if this be hindered by pinching the noſe, they fly to the *uvula*, which is the neareſt extreme part to this.

In like manner, pinching the noſe, or preſſing the lacrymal bag, whoſe membrane is continuous to the pituitary one, checks the ſenſation that gives riſe to ſneezing. And when looking at a ſtrong light excites this action, or acrid vapours make the eyes water, we may conjecture, that vibrations paſs through the lacrymal duct from the eye to the noſe in the firſt caſe, and from the noſe to the eye in the laſt. The watering of the eyes from drinking haſtily, eſpecially pungent liquors, from plucking a hair out of the noſtrils, and from ſternutatories, admit of a like explication.

And theſe inſtances may help to explain the ſenſations in the *fauces*, *uvula*, and tip of the noſe, alſo the flowing of tears from the eyes, which attend grief. I conjecture that the ſtomach is particularly affected in grief; and that it ſends up vibrations, along the common membrane, to the *fauces*, *uvula*, tip of the noſe, and eyes. However, the diſorder of the medullary ſubſtance is great and general in great mental uneaſineſſes.

As to ſneezing; no one can doubt its being automatic. And it is reaſonable to expect, that the muſcles actually concerned in it, viz. thoſe of inſpiration, and the erectors of the head and neck, ſhould be affected by vivid ſenſations in the pituitary membrane. It ſeems alſo to me, that the muſcles which ſtop the paſſage through the noſe, ought to be contracted firſt, *i. e.* during the inſpiration, as being nearer to the ſeat of irritation; and afterwards relaxed during expiration, partly by their having exhauſted

exhauſted their own power, partly by the contraction of their antagoniſts, which are irritated alſo. The contrary happens, but for the ſame general reaſons, in the action of deglutition as has been already obſerved. And there is a remarkable coincidence of the efficient and final cauſes in both theſe inſtances.

In ſpeaking of the ſources of motory vibrations above, *Prop.* 18. I ſuppoſed, that, juſt before the motory vibrations excited by the irritation of membranes took place, the ſenſory ones in them were checked by the general contraction of their fibres, in all their directions. And I mentioned ſneezing, as affording an inſtance of this. For the ſenſation, which cauſes it, diſappears the inſtant before the inſpiration; and, if this be not ſtrong enough, *i. e.* if the muſcles do not receive the vibrations from the pituitary membrane with ſufficient freedom, it returns again and again, being increaſed by this reciprocation, till at laſt it cauſes ſneezing. It ſeems agreeable to this account, that the paſſage of air, cold abſolutely or relatively, through the noſe, will often occaſion ſneezing; and through the mouth, yawning. For cold air muſt contract the membranes, along whoſe ſurfaces it paſſes.

When ſneezing rouſes from a ſtupor, it may be ſuppoſed to excite the uſual degree and kind of vibrations in the medullary ſubſtance of the brain, by ſuch a moderate concuſſion of it, as lies within the limits of nature and health.

PROP. LIV.

To explain the Manner and Degree, in which the automatic Actions, mentioned in the laſt Propoſition, are influenced by voluntary and ſemivoluntary Powers.

The ſhort, quick, alternate inſpirations and expirations, by which we diſtinguiſh ſmells in perfection, are in men, totally or nearly, a voluntary action, derived partly from common reſpiration, partly from ſneezing, the proſpect of pleaſure and convenience concurring to it, and modelling it, as in other caſes. It ſeems alſo, that in brutes this action muſt paſs from its pure automatic ſtate to ſome degree of a voluntary one.

In what manner and degree deglutition is voluntary, has been conſidered already.

Sneezing is checked for a time by attention, ſurprize, and all ſtrong mental emotions. It may alſo be performed voluntarily; but then the force is much inferior to that of automatic ſneezing. The ſame may be obſerved of hiccough, coughing, yawning, ſtretching, &c. and is very agreeable to the derivative nature of theſe motions, when voluntary, *i. e.* when performed by motory vibratiuncles. The action of ſneezing is differently modelled by voluntary and ſemivoluntary powers in different perſons.

SECT. IV.

OF THE SENSE OF SIGHT.

PROP. LV.

To determine the immediate Organ of Sight, and explain its Powers in general.

SINCE the *retina* is an expanſion of the optic nerve, we may conclude, from the analogy of the other ſenſes, that it is the immediate organ of ſight. Nor is the want of ſenſibility in the button of the optic nerve, a ſufficient objection to this; as the minute ſtructure and diſpoſition of the parts of this button are not known.

We may alſo reaſon thus to the ſame purpoſe. It may be expected, that the immediate organ of ſight ſhould be either black or white, that ſo it may bear a relation of indifference to all the colours. But if we admit the doctrine of vibrations, black, by abſorbing all kinds of rays, would make a confuſion of vibrations, whereas white, by reflecting all, might retain the impreſſed vibrations diſtinctly. The *retina* is therefore peculiarly fitted for the immediate organ of ſight, and the *choroides* the contrary. We may add farther, that the *retina*, by reflecting rays copiouſly, prevents their arrival at the *choroides*.

For the accurate diſtinction of the ſeveral viſible points of objects, it is neceſſary, that theſe be placed within the limits of diſtinct viſion; and alſo, that the coats and humours of the eye be ſo circumſtanced, as to bring the ſeveral pencils of rays, which proceed from each viſible point, accurately or nearly, to a correſponding point upon the *retina*. This is diſtinct viſion. But colours alone may be diſtinguiſhed from each other without any exact conformation of the eye. Thus viſion may be reckoned of two kinds, as feeling, taſte, and ſmell, have been.

PROP. LVI.

To examine how far the Phænomena of Colours are agreeable to the Doctrine of Vibrations.

HERE I will make two ſuppoſitions.

Firſt, That the extreme red rays at *F M*, *Optics*, book I. part II. fig. 4. excite vibrations in the *retina*, which are to thoſe excited by the extreme violet rays at *A G*, as 1 to 2, in reſpect of frequency.

Secondly,

Secondly, That, in going from the extreme red to the extreme violet, the exceſs of vibrations excited by each colour, above thoſe of the extreme red, will be proportional to its diſtance from the extreme red.

If we admit theſe two ſuppoſitions, then the vibrations excited by the extreme red, by the limit of red and orange, of orange and yellow, yellow and green, green and blue, blue and indigo, indigo and violet, and by the extreme violet, as theſe colours are fixed by Sir *Iſaac Newton*, will be to one another in frequency, reſpectively, as the eight numbers 100, $112\frac{1}{2}$, 120, $133\frac{1}{3}$, 150, $166\frac{2}{3}$, $177\frac{7}{9}$, and 200; the diſtances of theſe ſeveral limits, and of the extreme violet, from the extreme red, being to one another reſpectively, as the ſeven numbers $12\frac{1}{2}$, 20, $33\frac{1}{3}$, 50, $66\frac{2}{3}$, $77\frac{7}{9}$, and 100.

Now the firſt ſuppoſition may be rendered probable thus. The intervals of the fits of eaſy reflection and tranſmiſſion of the red and violet in the ſame medium, and ſame angle of refraction, are nearly as 5 to 3. See *Optics*, book II. obſ. 13, 14. and prop. 16. But the red is leſs refracted by the coats and humours of the eye than the violet, and conſequently will not have its intervals ſo much diminiſhed in proportion; whence they may be to thoſe of the violet as 6 to 3, or 2 to 1, at their arrival on the *retina*. But it is probable, that the vibrations of the rays themſelves, and conſequently thoſe which they excite in the *retina*, are reciprocally as the intervals of their fits. The frequency therefore of the vibrations excited by the extreme red may be to that of the vibrations excited by the extreme violet as 1 to 2, according to the firſt ſuppoſition.

The ſecond ſuppoſition is an eaſy ſtep after the firſt.

For it is natural to ſuppoſe, that in paſſing from *F* to *A*, in the figure above referred to, equal diſtances ſhould produce an equal increaſe of vibrations, which is the ſecond ſuppoſition.

Upon this foundation we may now reaſon in the following manner.

Firſt, The ſeven primary colours, eſtimated both from their limits, and their middle points, excite vibrations, which are to each other in the ſimpleſt ratios that are conſiſtent with each other, and all comprehended within the firſt and moſt ſimple of all ratios, viz. that expreſſed by the two firſt numbers 1 and 2.

Secondly, The ſame ratios are alſo thoſe of the five tones, and two ſemitones, comprehended within the octave; as might well be expected. For muſic muſt take thoſe which are moſt ſimple, and moſt conſiſtent with each other.

Thirdly, Since the greens are reſpectively to the yellows, on one hand, as 9 to 8, and to the blues, on the other, as 9 to 10, *i. e.* in the proportion of a tone; alſo to the reds, on one hand, as 4 to 3, and to the violets, on the other, as 3 to 4, *i. e.* in the proportion of a fourth; ſince farther, the yellows are as 6 to 5, *i. e.* thirds minor, to the reds, as 4 to 5, *i. e.* thirds major, to the blues, and as 2 to 3, *i. e.* fifths, to the violets; the blues as 5 to 6, *i. e.* thirds minor, to the violets, and as 3 to 2, *i. e.* fifths, to the reds; and the reds as 9 to 16, *i. e.* flat ſevenths, to the violets; the difference of vibrations here exhibited may make the five foregoing colours

appear

appear diſtinct from each other to the mind, for the ſame reaſons, whatever they be, as take place in ſounds. For natural bodies reflect all theſe colours in great abundance, and in ſufficient purity for this purpoſe. We may begin from green, as the moſt common of all. When this, as reflected by graſs, ſuppoſe, has been ſufficiently familiarized to the eye of a child, it is reaſonable to think, that it may be diſtinguiſhed from yellow and blue, and much more from red and violet, as reflected by flowers; alſo that theſe may be diſtinguiſhed from each other. And it ſeems to me, that our fixed point ought to be placed in green, from the commonneſs and purity of the green of the third order, *i. e.* of graſs and vegetables in general. For the ſame reaſons one may expect, that the ſeveral ſhades of red, orange, green, blue, and violet, ſhould be conſidered as ſeveral degrees of the ſame colour, viz. on account of the ſmall difference of vibrations. At leaſt this correſponds to the uſual method of proceeding in other things. We diſtinguiſh great differences in our ſenſations by new names; but refer all ſuch as are nearly related to the ſame. And thus the two foregoing ſuppoſitions furniſh us with a natural reaſon for diſtinguiſhing the primary colours into five, viz. red, yellow, green, blue, and violet; which, agreeably to this, were all that Sir *Iſaac Newton* himſelf diſtinguiſhed the oblong ſolar image into for ſome time, as may appear by his Optical Lectures.

Fourthly, Since, if we proceed from the green to the yellow and red, on one hand, and to the blue and violet, on the other, the ratios are the ſame, only inverted; and ſince there is a larger interval or ratio between the yellow and red, alſo between the blue and violet, than between the green and yellow, or green and blue; we may expect to have two more diſtinct primary colours correſponding to each other, and to the two ſemitones in an octave. And thus it is. Orange, and indigo, are ſufficiently diſtinct from their contiguous ones, viz. orange from red and yellow, and indigo from blue and violet; and yet approach to them. And theſe ſeven colours thus fixed, ſeem to be all that we can well call diſtinct colours amongſt the primary ones, the intermediate degrees being referred to ſome of theſe ſeven, and called ſhades. Of compound colours, diſtinct from all the primary ones, I ſhall ſpeak below.

Fifthly, It is remarkable here, that the order of the five tones and two ſemitones of an octave, which correſponds to the order of the ſeven primary colours, is the ſecond in abſolute perfection (which I have from a MS. paper of Sir *Iſaac Newton*'s on muſic, not yet publiſhed), and the firſt in relative, *i. e.* of thoſe, in which the ſemitones are at equal diſtances from the middle or extremes; which circumſtance is evidently neceſſary in the order of the colours. For if diſtinct colours ariſe from ratios, and a half-note colour ariſe next after the red, if you begin at one end, a correſponding one ought to appear next after the violet, if you begin at the other. The ſameneſs of the ratios, that muſt ariſe, makes this neceſſary, on ſuppoſition, that the diſtinction of colours is founded on ratios.

Sixthly,

Sixthly, If the diſtinction of colours ariſe from the ratios of vibrations, the colours may be expected to be broader where the vibrations are more numerous, becauſe a greater addition muſt be made to a greater number, in order to make an equal ratio. And there is a certain breadth for each of the colours reſpectively, which ſuits each ſet of ratios of vibrations that they can be ſuppoſed to bear to one another, according to any ſuppoſed law of increaſe of the vibrations in paſſing from one end of the ſolar image to the other. Since therefore the breadth of the ſeven primary colours, as determined by Sir *Iſaac Newton*, ſuits the ſimpleſt ratios poſſible, according to the ſimpleſt law of increaſe poſſible, as has been explained above, we ſeem to have from thence an argument both for the doctrine of vibrations in general, and for the particular ratios of vibrations here alleged. And there are two things in this matter which deſerve particular notice. Firſt, that Sir *Iſaac Newton*'s *ſpectrum* was about ten inches long; and conſequently, the breadths of the ſeven primary colours, red, orange, yellow, green, blue, indigo, violet, in inches, 1, 25; 0, 75; 1, 33; 1, 66; 1, 66; 1, 11; 2, 22; which magnitudes are ſo conſiderable, that a ſmall error in fixing the limit of a colour does not much affect their mutual ratios. Secondly, that the limits of the colours were determined in a way, that had no dependence on any hypotheſis, and the operation repeated ſeveral times. However, it may perhaps be worth the time and pains of ſome curious experimenter, to examine the breadths of the ſeven primary colours afreſh, and compare them with the hypotheſis here propoſed.

Seventhly, When all the rays reflected from any natural body are near to each other, as in the yellows of the ſecond order, and in the blues and greens of the third, we may ſuppoſe, that the ſlower vibrations are accelerated by the quicker, and the quicker retarded by the ſlower, ſo as to compoſe an intermediate colour, ſcarce differing from homogeneal light in appearance of purity; juſt as in a bell, the ſlower vibrations of the wider part, and the quicker of the narrower, over-rule each other mutually, ſo as to compoſe one tone. But when the vibrations of the extreme rays are greatly different from each other, it ſeems that each ought to keep the power of exciting its proper vibrations, ſo as to make the colour of the middle rays; which may be conſidered as a kind of centre of gravity, a dilute one, verging to white. And white itſelf, when in perfection, ariſes from a due proportion of all the ſorts of rays, each primary colour, perhaps, keeping its own peculiar vibrations, and the ſeveral ſhades of each primary colour vibrating in the ſame time as the middle point. When two colours conſiderably different, as red and blue, yellow and violet, red and violet, are compounded, they neither reſemble the intermediate homogeneal one, nor make a white. Not the firſt, becauſe they are at ſo great a diſtance, that each can keep its own vibrations, contrary to what happens in colours reſembling homogeneal ones; not a white, becauſe there is not a ſufficient number of differing vibrations. By ſuch compoſitions it is, that purples, and other colours, different from all the homogeneal ones, are formed; and whoever conſiders the ſeveral ſhades of each colour, with the mutual proportions which may be combined

combined in any compound, may eaſily conceive how all the colours of natural bodies ſhould ariſe from mere combinations of the primary colours, agreeably to the ſixth and ſeventh Propoſitions of the ſecond Part of the firſt Book of Sir *Iſaac Newton*'s Optics. What is here delivered may ſerve to ſuit the doctrine of vibrations to thoſe propoſitions, and, perhaps, aſſiſt the reader to ſee the reaſons of the ſixth.

Cor. If the differences of the primary colours ariſe from the ſpecific differences of vibrations, it is eaſy to ſee, that the differences of taſtes and ſmells may have a like origin; and *vice verſa*.

PROP. LVII.

To examine how far luminous Appearances, not occaſioned by the Impreſſion of the Rays of Light, with ſome other Phænomena of a related Kind, are agreeable to the Doctrine of Vibrations.

Flashes of light, and other luminous appearances, are occaſioned by ſtrokes upon the eye, rubbing it, faintings, &c. Now it is very eaſy to conceive, that violent agitations in the ſmall particles of the optic nerve ſhould ariſe from theſe cauſes; and conſequently that ſuch deceptions of the ſight, as one may call them, ſhould be produced, if we admit the doctrine of vibrations. And I do not ſee how they follow from the common hypotheſis concerning the manner of ſenſation.

The moſt remarkable of theſe luminous appearances is that which reſembles the eye of a peacock's feather, and which offers itſelf upon ſhutting and rubbing the eye in a morning. There is a diſtinction in it between the central parts and the edges. The firſt ſeem to anſwer to that part of the *retina*, which is oppoſite to the pupil, and of about the ſame ſize with it, in its ordinary dimenſions. The laſt, or the edges, may anſwer to thoſe parts of the *retina*, which are only ſometimes expoſed to the action of light, viz. in dilatations of the pupil. It is obſervable, that the central parts are often dark, while the edges are luminous; and *vice verſa*. It happens alſo frequently, that in the whole appearance a blue, a dilute yellow, and a red, ſucceed each other in the order of the colours. Perhaps, by farther obſervations, a perſon might be able, in ſome meaſure, to predict the variations of this phænomenon. It generally moves, which may be perhaps from the motion of the peculiar vibrations along the ſurface of the *retina*.

Upon ſhutting one's eyes after they have been fixed upon a luminous object, as a candle, a fire, a window, it is common to have a faint image of the object remain in the eye for a few moments. This follows from the gradual declenſion of the vibrations excited.

Sometimes, inſtead of a luminous image, a dark one, correſponding in ſhape and ſize to the luminous object, preſents itſelf. In this caſe we muſt ſuppoſe, that the vivid vibrations

vibrations excited by the luminous object pass immediately into very feeble ones, absolutely or relatively, upon the cessation of the impression.

Boerhaave says, that he had a luminous circle in his eye for along time after having viewed too intensely the moon's light collected to a *focus*. And looking at the sun makes other objects appear red and luminous. It does also occasion dark spots to appear upon common objects afterwards. This last effect may perhaps succeed the first. While extraordinary vibrations, or a dispositon to them, continue in the *retina*, and optic nerve (which may be for a long time, if a slight inflammation, with the consequent irritability, be produced in the small vessels of the nervous capillaments), the common objects may appear luminous. When these go off, a contrary state may take place, and cause the dark spots to appear. Dark spots of continuance argue, that an injury is done to the *retina*, and optic nerve. The permanent dark spots, which are sometimes previous to a *gutta serena*, seem to be of this kind.

It is agreeable to some of the foregoing instances, that being kept much in the dark should enable the persons to see with a very obscure light. In some other cases of a *nyctalopia* there may perhaps be the first and lowest degree of inflammation in the infinitesimal vessels of the *retina*, so as to increase the sensibility of the organ without making the exercise of its functions painful.

Giddiness, or an apparent irregular motion in the objects of sight, almost always goes before any general confusion and privation of sense and motion; which is very agreeable to the doctrine of vibrations. For the general disorder in the vibrations in the medullary substance may be expected to be perceived in the optic nerve, and corresponding part of the brain, first and chiefly, on account of the acuteness and precision of the sense of sight. Upon the same principles it is easy to see, how great and unusual agitations of the body, impressions on the stomach, on the olfactory nerves, on the eye, by the quick transition of objects, on the eye and fancy together, by looking down a precipice, &c. should occasion a temporary giddiness.

PROP. LVIII.

To examine how far the Judgments which we make by Sight concerning Magnitude, Distance, Motion, Figure, and Position, are agreeable to the Doctrine of Association.

I HAVE already observed, *Prop.* 30. that these judgments are to be esteemed true or false, according as they agree or disagree with those made by touch.

Now the associates of greater tangible magnitude are a larger picture on the *retina*, the distance being the same; and a larger distance, the picture being the same. The associates of a less tangible magnitude are the opposites to these. And the associates of the sameness of tangible magnitude are the increase or diminution of the picture on

the *retina*, while the diſtance is diminiſhed or increaſed ſuitably thereto. All this appears from optical conſiderations. Hence it follows, that where the picture on the *retina* is of a juſt ſize, and alſo the previous judgment concerning the diſtance juſt, our eſtimate of tangible magnitude by ſight will be juſt likewiſe. But if the picture on the *retina* be magnified or diminiſhed by glaſſes, or our previous judgment concerning the diſtance be erroneous, our eſtimate of tangible magnitude will be erroneous in like manner. And, whether it be juſt or erroneous, it is entirely founded on aſſociation.

The following inſtances, among many others, confirm theſe poſitions. Young children judge rightly of magnitude only in familiar places, or at ſmall diſtances. At great diſtances they always judge the objects to be leſs than the truth, not having learnt to judge rightly of theſe diſtances, and make allowance for them. The generality of adults judge far better of magnitude at great diſtances on level ground, than from above, or from below, on account of their greater experience in the former caſe. The horizontal moon appears larger than the meridional, becauſe the picture on the *retina* is of nearly the ſame ſize, and the diſtance eſteemed to be greater. And yet the horizontal moon appears far leſs than the truth, becauſe we can form no conception of its vaſt diſtance. A tree referred to the horizon in the duſk of the evening, or a fly to the ground at a diſtance, through the indiſtinctneſs of viſion, appears much bigger than the truth. In looking through glaſſes, which magnify or diminiſh the picture on the *retina*, the objects themſelves ſeem to be magnified or diminiſhed, becauſe our judgment concerning the diſtance is not altered proportionally, &c. &c.

There are, beſides theſe, ſome other aſſociated circumſtances, which occaſionally impoſe upon us in eſtimating magnitudes. Thus a perſon of an ordinary height ſtanding near a very tall one, or coming in at a very high door, appears ſhorter than the truth; lean perſons ſeem tall, fat perſons ſhort, &c.

The principal criterion of diſtance is the magnitude of the picture, which ſome known object makes on the *retina*. But the five following aſſociated circumſtances ſeem to have alſo ſome influence on our judgments concerning diſtance, in certain caſes, and under certain limitations: the number of objects which intervene, the degree of diſtinctneſs in which the minute parts are ſeen, the degree of brightneſs, the inclination of the optic axes, and the conformation of the eye. It will appear from the ſixty-ſecond and ſixty-third propoſitions that the two laſt are aſſociates to each other in their proper degrees, ſince each depends on the diſtance of the object. The influence of the three firſt, as well as that of the magnitude of the picture on the *retina*, is evident from the methods of expreſſing diſtance in pictures.

From the principles laid down in the laſt paragraph, we may explain the following fallacies in viſion. An object viewed through a perſpective appears to be nearer than it is, becauſe the picture on the *retina* is thereby rendered both larger, and more diſtinct; but if we invert the perſpective, and ſo diminiſh the picture, the object will

will appear farther off. At ſea, and on plains, where few or no objects intervene, we judge the diſtances to be leſs than the truth; and the contrary happens in ſcenes diverſified with a proper variety of objects. A large object, when apprehended to be one of a common ſize, appears nearer than the truth; and the ſame happens, when we view objects in rural ſcenes, ſuch as houſes, towns, hills, &c. in a bright light, or through a very clear atmoſphere. In trying to judge of ſmall diſtances by one eye, it is uſual to be miſtaken for want of the criterion from the inclination of the optic axes.

Since our judgment concerning the magnitude of an unknown object depends upon the diſtance, and our judgment concerning the diſtance of every object chiefly upon that concerning its magnitude, the conjectures of different perſons, concerning the magnitudes and diſtances of unknown remote objects, both as ſeen through teleſcopes, and with the naked eye, may vary conſiderably from each other according to their reſpective aſſociated prejudices. If the diſtance be fixed previouſly by a known object, we may afterwards judge of the magnitude of an unknown object thereby. The number of intervening objects, and the inclination of the optic axes, ſeem to afford conſiderable aſſiſtance in determining diſtances, where known objects are wanting; the firſt in large diſtances, the laſt in ſmall ones: but the other three inferior criterions above-mentioned, viz. the degree of diſtinctneſs, the degree of brightneſs, and the conformation of the eye, when ſingly taken, are of ſmall ſignification.

We judge of motion by the motion of the pictures on the *retina*, or of our eyes in following the objects. After ſome time, we learn to make allowance for the line of direction, our own motions, &c. If we fail to make the due allowance through aſſociated circumſtances of any kind, we muſt, in conſequence of this, make a diſproportionate eſtimate of motion, or place it in an undue object.

We judge of the figure or ſhape of bodies, chiefly by the variations of light and ſhade; and our aſſociations taken thence are ſo ſtrong, as that we are eaſily impoſed upon by a juſt imitation of the light and ſhades belonging to each ſhape and figure, in their ſeveral ſituations with reſpect to the quarter from which the illumination proceeds.

It is from the aſſociations, conſidered under this propoſition, and particularly in the laſt paragraph, that painting conveys ſuch exact ideas of ſhapes, figures, magnitudes, and diſtances, and the *camera obſcura* of motions alſo, by means of impreſſions that proceed from a plane ſurface.

The poſition of objects is judged of entirely by the part of the *retina* on which the rays fall, if we be in an erect poſture ourſelves. If we be not, we allow for our deviation from it, or make a reference to ſomething judged to be in an erect poſture. If we fail in theſe, errors concerning the poſition of viſible objects muſt happen. Our calling bodies *erect*, when the rays proceeding from their tops fall upon the lower

parts of the *retina*, and *vice verſa*, is merely from an aſſociation of the ſame kind with thoſe by which the ſenſes of other words are determined.

Thoſe who are diſpoſed to examine the ſubjects of this and the following propoſition with accuracy, may ſee a large variety of proper inſtances well explained by Dr. *Smith*, and Dr. *Jurin*, in Dr. *Smith*'s Optics. Theſe gentlemen inſiſt chiefly on optical conſiderations; but they every where admit the prevalence of aſſociation, though it is not always to their purpoſe to take expreſs notice of it.

I will juſt remind the reader, that in all the caſes of magnitude, diſtance, motion, figure, and poſition, the viſible idea is ſo much more vivid and ready than the tangible one, as to prevail over it, notwithſtanding that our information from feeling is more preciſe than that from ſight, and the teſt of its truth. However, if we could ſuppoſe a perſon to be endued with the ſenſes of ſeeing and hearing, and yet to be deſtitute of that of feeling, and of the power of moving himſelf, he might have all the words expreſſing diſtances, magnitudes, &c. ſo much, and ſo properly, aſſociated with the viſible appearances of theſe, as that, by paſſing over his ear, they would raiſe up all the ſame trains of viſible ideas, as in us.

PROP. LIX.

To examine how far the Circumſtances of ſingle and double Viſion are agreeable to the Doctrine of Aſſociation.

When we have attained a voluntary power over the external motions of our eyes, ſo as to direct them to objects at pleaſure, we always do it in ſuch a manner, as that the ſame points of objects fall upon correſpondent points of the two *retinas*. And this correſpondence between the reſpective points of the *retinas* is permanent and invariable. Thus the central points, or thoſe where the optic axes terminate, always correſpond; a certain point on the right ſide of the right *retina* always correſponds (whatever object we view) to another certain point on the right ſide of the left *retina*, equally diſtant from the centre with it, &c. Hence, if the optic axes be directed to the object *A*, the the picture made by it on the right *retina* correſponds to that made on the left; whereas the impreſſions made by two ſimilar objects, *A* and *B*, upon the two *retinas*, do not correſpond. The impreſſions therefore, that are made upon portions of the *retinas*, which do or do not correſpond, are the aſſociated criterions of ſingle and double viſion. For I here ſuppoſe, that the common appearances of a ſingle object, and two ſimilar ones, are reſpectively called ſingle and double viſion.

Let us now inquire into the fallacies which theſe aſſociated criterions may occaſion.

Firſt, then, When a perſon directs his eyes by a voluntary power to a point nearer or farther off than the object which he views, ſo as to make the pictures of the object fall upon the points of the two *retinas*, that do not correſpond, this object will appear double.

double. The ſame thing happens when one eye is diſtorted by a ſpaſm, when perſons loſe the voluntary power of directing their optic axes to objects, and in general whenever the pictures, which the object imprints on the two *retinas*, fall upon points that do not correſpond.

It reſembles this, and illuſtrates it, that if we croſs the fingers, and roll a pea between two ſides, which are not contiguous naturally, it feels like two peas.

Secondly, After a perſon, whoſe eye is diſtorted by a ſpaſm, has ſeen double for a certain time, this ceaſes, and he gains the power of ſeeing ſingle again, provided the diſtortion remains fixed to a certain degree. For the aſſociation between the points of the two *retinas*, which correſponded formerly, grows weaker by degrees; a new one alſo between points, that now correſpond, takes place, and grows ſtronger perpetually.

Thirdly, If two lighted candles, of equal height, be viewed at the diſtance of two or three feet from the eyes, ſo that the picture of the right-hand candle on the left *retina* ſhall correſpond to that of the left-hand candle on the right *retina*, only one image will be produced by theſe two correſponding pictures. But the two pictures which do not correſpond, viz. that of the right-hand candle on the right *retina*, and that of the left-hand candle on the left *retina*, will each produce its proper image. See *Smith's Optics*, Rem. 526.

But here two queſtions may be aſked: Firſt, Why ſingle objects appear the ſame to one as to both eyes, allowing for the diminution of brightneſs, ſince, in the firſt caſe, there is one picture only, in the laſt two. Ought not every ſingle object to appear ſingle to one eye, and double to both?

Secondly, How can one object appear like two to both eyes, ſince, however the eyes be directed or diſtorted, it can make but two pictures, whereas two objects make four, viz. two in each eye?

It is evident, that the difficulty is the ſame in both theſe queſtions. And it ſeems to be a ſufficient anſwer to allege, that impreſſions ſo much alike, and which are ſo conſtantly made together, as thoſe upon the correſponding portions of the two *retinas*, muſt unite into one entirely in the brain, and produce the ſame effect in kind, though ſomewhat different in degree, as one alone. And thus, whether we ſee with one eye or both, hear with one ear or both, the impreſſion on the common ſenſory in the brain is the ſame in kind; and therefore, if the firſt be called ſingle, the other muſt alſo.

But it deſerves particular attention here, that the optic nerves of men, and ſuch other animals as look the ſame way with both eyes, unite in the *ſella turcica*, in a *ganglion*, or little brain, as one may call it, peculiar to themſelves; and that the aſſociations between ſynchronous impreſſions on the two *retinas* muſt be made ſooner, and cemented ſtronger, on this account; alſo, that they ought to have a much greater power over one another's images, than in any other part of the body. And thus an impreſſion made on the right eye alone by a ſingle object, may propagate itſelf into the left, and there raiſe up an image almoſt equal in vividneſs to itſelf: and conſequently,

when

when we ſee with one eye only, we may, however, have pictures in both eyes; and when we ſee a ſingle object, with our eyes directed to one at a different diſtance, we may have four pictures, viz. two from direct impreſſion in parts that do not correſpond, and two others from aſſociation in parts that do. And thus both the foregoing queſtions may be anſwered, in a manner that leaves no doubt or heſitation.

PROP. LX.

To explain in what Manner, and to what Degree, agreeable and diſagreeable Impreſſions on the Eye contribute, in the Way of Aſſociation, to form our intellectual Pleaſures and Pains.

It is evident, that gay colours, of all kinds, are a principal ſource of pleaſure to young children; and they ſeem to ſtrike them more particularly, when mixed together in various ways. Whether there be any thing in colours, which correſponds to the harmony between ſounds, may be doubted. If there be, it muſt, however, admit of much greater latitude than the harmony between ſounds, ſince all mixtures and degrees of colours, unleſs where the quantity of light overpowers the eye, are pleaſant; however, one colour may be more ſo originally than another. Black appears to be originally diſagreeable to the eyes of children; it becomes diſagreeable alſo very early from aſſociated influences. In adults, the pleaſures of mere colours are very languid in compariſon of their preſent aggregates of pleaſure, formed by aſſociation. And thus the eye approaches more and more, as we advance in ſpirituality and perfection, to an inlet for mental pleaſure, and an organ ſuited to the exigencies of a being, whoſe happineſs conſiſts in the improvement of his underſtanding and affections. However, the original pleaſures of mere colours remain, in a ſmall degree, to the laſt, and thoſe transferred upon them by aſſociation with other pleaſures (for the influence is in theſe things reciprocal, without limits) in a conſiderable one. So that our intellectual pleaſures are not only at firſt generated, but afterwards ſupported and recruited, in part from the pleaſures affecting the eye; which holds particularly in reſpect of the pleaſures afforded by the beauties of nature, and by the imitations of them, which the arts of poetry and painting furniſh us with. And for the ſame reaſons the diſagreeable impreſſions on the eye, have ſome ſmall ſhare in generating and feeding intellectual pains.

It deſerves notice here, that green, which is the colour that abounds far more than any other, is the middle one among the primary colours, and the moſt univerſally and permanently agreeable to the eye of any other: alſo, that as the common juice of vegetables is in general green, ſo that of animals is in general red; the firſt being, perhaps, of the third order, the laſt of the ſecond. It appears to be extremely worth the time and pains of philoſophers to inquire into the orders of the colours of natural bodies, in the manner propoſed and begun by Sir *Iſaac Newton*; and particularly to compare the changes of colour, which turn up in chemical operations, with the other changes, which

which happen to the ſubjects of the operations at the ſame time. Nothing ſeems more likely than this to be a key to the philoſophy of the ſmall parts of natural bodies, and of their mutual influences.

PROP. LXI.

To give an Account of the Ideas generated by viſible Impreſſions.

HERE we may make the following obſervations:

Firſt, That the ideas of this ſenſe are far more vivid and definite than thoſe of any other; agreeably to which, the word *idea* denoted theſe alone in its original and moſt peculiar ſenſe. Hence it is proper to make the ſtricteſt examination into the ideas of this ſenſe, and their properties, ſince it is probable, from the analogies every where conſpicuous in natural things that theſe are patterns of all the reſt. Their peculiar vividneſs and preciſion may therefore be conſidered as ſerving like a microſcope in reſpect of other ideas, *i. e.* as magnifying their properties.

Secondly, The vividneſs and preciſion here ſpoken of relate chiefly to diſtance, magnitude, motion, figure, and poſition, *i. e.* to the things conſidered in the fifty-eighth propoſition. However, colours leave diſtinct ideas of themſelves; but then they require an exertion of our voluntary powers for the moſt part, whereas the ideas of diſtances, magnitudes, &c. recur inceſſantly in the trains which paſs over the fancy.

Thirdly, The peculiar vividneſs and preciſion of viſible ideas may probably be owing to the following cauſes, as well as to ſome peculiar unknown ſtructure of the optic nerve, and correſponding region of the brain; viz. the perpetual recurrency of viſible objects, either the ſame, or ſimilar ones, during the whole time that we are awake; the diſtinct manner in which they are impreſſed by means of the ſeveral proper conformations of the eye; and there being received in general upon the ſame part of the *retina*, preciſely or nearly. For, when we view any object with attention, we make the central point of it fall upon the central part of the *retina*. Farther, as the optic nerve ſends off no branches, but is ſpent wholly upon the *retina*, this may perhaps contribute in ſome degree. And theſe conſiderations may a little help us to conceive, how the optic nerve, and correſponding region of the brain, may be the repoſitory of ſuch an immenſe variety of viſible ideas, as they are in fact.

Fourthly, The idea of every familiar object has, for the moſt part, ſome particular magnitude, poſition, and aggregate of aſſociates, in its recurrences to the mind. And this ſomewhat leſſens the difficulty mentioned in the laſt paragraph. The reaſon of this fourth obſervation is, that though every viſible object appears under different magnitudes, in different poſitions, and with different aſſociates, yet theſe differences deſtroy one another, ſo that the ſtrongeſt particularity only remains. However, changes are made from time to time, each ſubſiſting for a ſhort period, and then giving way to the next in ſucceſſion.

Fifthly,

Fifthly, We have fictitious viſible ideas of places and perſons that we have never ſeen, as well as of thoſe which we have. Theſe are derived from aſſociation evidently, and they often undergo ſucceſſive changes, like thoſe ſpoken of in the laſt paragraph.

Sixthly, Our viſible ideas are ſubject to the voluntary power in a high degree, and may be called up by the ſlighteſt aſſociated circumſtance, at the ſame time that they have very numerous connections with other ideas, and with actual impreſſions. The name, or its idea in the region of the brain correſponding to the ear, are the circumſtances moſt commonly made uſe of for calling up viſible ideas. But there are many ideas, *i. e.* internal feelings, which have no names, and which yet, by attending our ſeveral viſible ideas, get this power of introducing them.

Here it is to be obſerved, that an idea cannot be ſaid to be voluntarily introduced, till it be previouſly determined by ſome of its aſſociates. If I deſire to introduce a viſible idea of any kind, an *individuum vagum*, and that of an horſe offers itſelf, it was not owing to the command of my will, that it was an horſe, and nothing elſe, but to the connection which the idea of an horſe had with ſome other idea or impreſſion, which then happened to take place. But if I deſire to recollect the features of a perſon's face, whom I ſaw yeſterday, I make uſe of his name, his dreſs, the place in which I ſaw him, or ſome other aſſociated circumſtance, for this purpoſe. And this may be called a voluntary introduction of an idea. However, the introduction of the idea of an horſe, in the circumſtances juſt deſcribed, might be termed voluntary in a different ſenſe, if any perſon thought fit to denominate it ſo, on account of the command of the will to introduce ſome idea. My deſign here is, only to ſuggeſt to the reader the proceſſes generally made uſe of in theſe things. It is to be obſerved farther, that the aſſociated circumſtance, which determines what idea ſhall be called up voluntarily, does, for the moſt part, raiſe it. Thus, if a perſon deſires me to call up the idea of an horſe, the very ſound of the word proceeding from his mouth will do it, for moſt part, immediately. If not, I go back, by my memory, to the trace left by the word, and thence to the idea, or to ſome common aſſociate of both the word and idea, capable of raiſing the laſt.

Seventhly, When we have converſed much with the ſame viſible objects, as after having been in a crowd, travelling, &c. for many hours without intermiſſion, we may find the ideas of theſe objects peculiarly ſtrong, ſo as to intrude upon our fancies, and interfere with all our other ideas. This may ſerve to ſhew, that the permanence of the ſenſations impreſſed, mentioned in the third propoſition, and which ſhews itſelf particularly in viſible impreſſions, as there remarked, is of the nature of an idea. And it coincides remarkably with this, that the ideas ſhould be peculiarly vivid and preciſe in the ſame ſenſe, where the permanency of the ſenſation impreſſed is moſt conſpicuous.

Eighthly, The ideas of ſight and hearing, and the impreſſions from whence they proceed, have a peculiar connection with each other. For as words pronounced call up viſible

viſible ideas, ſo viſible ideas and objects call up the ideas of words, and the actions by which they are pronounced.

Ninthly, The trains of viſible ideas are in a particular manner affected by the general ſtates of the brain, as may appear from the trains which preſent themſelves in madneſs, frenzies, and common deliriums. This agrees remarkably with what has been already obſerved concerning the ideas of this ſenſe; and we may infer from all together, that the regions of the brain correſponding to the optic nerve are comparatively large, or peculiarly ſuſceptive of impreſſions, or both.

Tenthly, The imagery of the eye ſympathizes alſo remarkably with the affections of the ſtomach. Thus the grateful impreſſions of opium upon the ſtomach raiſe up the ideas of gay colours, and tranſporting ſcenes, in the eye; and ſpaſms, and indigeſtions, have often a contrary effect. The ghaſtly faces which ſometimes appear in idea, particularly after drinking tea, ſeem to be an effect of this kind, or perhaps of the laſt-mentioned one; for they are common to perſons of irritable nervous ſyſtems. Ghaſtly faces may take place preferably to other diſagreeable ideas, perhaps becauſe characters, affections, paſſions, are principally denoted and expreſſed by the countenance; becauſe faces are the moſt common of viſible objects, and attended to with the greateſt earneſtneſs; becauſe we criticiſe much upon the beauty of faces, and upon the proportion of the ſeveral features to each other; and becauſe evil ſpirits (the notions of which generally take ſtrong and early poſſeſſion of our fancies) are painted with ghaſtly faces. This mixture of reaſons hinders each particular one from being ſo obvious, as might otherwiſe be expected; however, the ſame thing is common in many other caſes. The trains of viſible ideas, which occur in dreams, are deducible, partly from the ſympathy here mentioned, partly from that of the laſt paragraph.

Eleventhly, Our ſtock of viſible ideas may be conſidered as a key to a great part of our knowledge, and a principal ſource of invention in poetry, painting, mathematics, mechanics, and almoſt every other branch of the arts and ſciences. In mathematics and mechanics the invention of the diagram is, in effect, the ſolution of the problem. Our memories are alſo much aſſiſted by our viſible ideas in reſpect of paſt facts, and the preſervation of the order of time depends in a particular manner upon our viſible trains ſuggeſting each other in due ſucceſſion. Hence eye-witneſſes generally relate in order of time, without any expreſs deſign of doing ſo. This recollection of viſible ideas, in the order in which they were impreſſed, gives riſe to the *loci memoriales*, in which matters principally worthy of remembrance are to be repoſited, and to the artificial memory, that is borrowed from the eye; juſt as the facility of remembering words formed into verſes does to the artificial memory borrowed from the ear. It may deſerve notice here, that ſome perſons have imaginary places for the natural numbers, as far as one hundred, or farther.

Twelfthly, The ideas which different perſons have of the ſame perſons faces, though they be very like one another, cannot yet be preciſely the ſame, on account of the

addition and omiſſion of little circumſtances, and a variety of aſſociated ones, which intermix themſelves here. Hence the ſame picture may appear much more like to one perſon than to another, viz, according as it reſembles his idea more or leſs.

Thirteenthly, Painters, ſtatuaries, anatomiſts, architects, &c. ſee at once what is intended by a picture, draught, &c. from the perfection of their viſible ideas; and carry off the ſcene, plan, &c. in their memories, with quickneſs and facility. All which is ſtill owing to aſſociation. But it would be endleſs to enumerate the inſtances of aſſociations, which this ſenſe affords.

Fourteenthly, It is probable, that fables, parables, ſimiles, allegory, &c. pleaſe, ſtrike and inſtruct, chiefly on account of the viſible imagery, which they raiſe up in the fancy. They are alſo much more eaſily remembered on the ſame account. We may add, that idolatry, heatheniſh and popiſh, has made a much quicker and more extenſive progreſs in the world on account of the ſtability and vividneſs of viſible impreſſions and ideas, and the difficulty, obſcurity, and changeable nature, of abſtract notions. And image-worſhip ſeems even to have been derived in great meaſure from this ſource.

Fifteenthly, It would be a matter of great curioſity and uſe (as far as theſe ſpeculations can be of any uſe) to inquire carefully into the progreſs of the mind, and particularly of the fancy, in perſons born blind, and compare the reſult with what is advanced under this propoſition, and with other parts of theſe papers, in order to correct and improve the theory of aſſociation thereby. It is probable, that they are conſiderable loſers, upon the whole, in reſpect of knowledge; though their greater degree of attention, and the ſuperior acuteneſs of the ſenſes of feeling and hearing, and conſequently, perfection of the ideas of theſe ſenſes, muſt give them ſome particular advantages.

PROP. LXII.

To explain the automatic Motions, which are excited by Impreſſions made on the Eye.

These motions are of two kinds, external and internal. The external are the motions of the globe of the eye, thoſe of the eye-lids, and the contractions of the lacrymal, and other neighbouring glands, whereby they are evacuated. The internal are the contractions of the greater and leſſer muſcular rings of the *iris*, of the radiated fibres of the *iris*, and of the ciliar ligaments. I will ſpeak of each of theſe in order.

I begin with the motions of the globe of the eye. And here I obſerve, Firſt, That the white tendinous expanſions of the four ſtrait muſcles reach as far as the *cornea*; and conſequently, that they are thereby expoſed in a particular manner to the action of light, when the eye is open, being covered by nothing but a thin membrane. However, the tendinous expanſions of the *adducens* and *abducens* are much more expoſed than thoſe of the

the *attollens* and *deprimens*; and, if the eye be but a little open, the light cannot fall upon theſe laſt at all.

Secondly, If a luminous object be placed upon the right ſide, ſo as that the light ſhall fall in a particular manner upon the tendinous expanſion of the *abducens* of the right eye, and of the *adducens* of the left, it may by contracting theſe muſcles make the eyes move in a congruous manner, turning them towards itſelf; and the tendency of the eyes to move towards the right ſide ought not to ceaſe, till the *adducens* and *abducens* in each eye have an equal quantity of light fall upon them from the luminous object, *i. e.* till the optic axes be directed to it. In which caſe the eyes would be *in æquilibrio*, as far as they are under the influence of the light which falls upon the tendinous expanſions of the ſtrait muſcles.

Thirdly, It agrees remarkably with the two laſt paragraphs, that new-born children move their eyes in a congruous manner; that the motions are chiefly to the right and left, ſcarce upwards and downwards at all, the eye-lids being ſeldom ſo much opened as to expoſe the tendinous expanſions of the *attollens* and *deprimens*; and that their eyes are frequently turned towards luminous objects, ſuch as a candle, or a window.

Fourthly, But it is not neceſſary, that the eyes of new-born children ſhould always turn to the luminous object, or remain fixed upon it. For every muſcle, when it has exhauſted itſelf by contraction, gives place to its antagoniſt of courſe. If therefore the luminous object be much on one ſide, the eyes ought to turn back from it almoſt immediately. To which we may add, that various luminous objects generally affect the eyes at the ſame time; that the four ſtrait muſcles do naturally balance each other, and keep the eyes in a right forward poſition; and that the oblique muſcles ſcarce favour any particular oblique poſition, though they do prepare the eye to turn with greater facility, in compliance with the contraction of any one of the four ſtrait muſcles. There are therefore ſufficient ſources for a variety of motions in the globes of the eyes, without deſtroying their congruity.

Fifthly, It is worthy of attention here, that the *attollentes* and *deprimentes* do not want the ſame external influence of light to make them move in a congruous manner, as the *adducentes* and *abducentes*; in as much as one *adducens*, and one *abducens*, muſt act together to make the eyes move congruouſly to the right and left; whereas the two *attollentes*, and two *deprimentes*, act together in the congruous motions upwards and downwards. As far therefore as the nerves of one ſide ſympathize with the correſponding nerves of the other in the influences which deſcend from the brain, there will be a natural tendency in the eyes to move upwards and downwards in a congruous manner, and to the right and left in an incongruous one. And this ſuits well with the greater expoſition of the tendinous expanſions of the *adducentes* and *abducentes* before taken notice of. For what reaſon ſo many pairs of nerves are concerned in the motions of the globe of the eye, and of the eye-lid, remains to be inquired.

Sixthly, It may perhaps be, that the light which paſſes in at the pupil has ſome efficacy in moving the globe of the eye, either by unknown communications in the brain between the optic nerve, and the third, fourth, and ſixth pairs, or perhaps by penetrating in a ſmall degree through the *retina*, *choroides*, and *ſclerotica*, to the four ſtrait muſcles. If this laſt influence could be allowed, it would oppoſe that exerted upon the tendinous expanſions; but would, however, join with it in preſerving the congruity of the motions.

Seventhly, As the two oblique muſcles neither have tendinous expanſions expoſed to the light, nor adhere to the globe of the eye, except juſt at their inſertion, they cannot be under either of the influences here ſuppoſed to affect the ſtrait muſcles, but muſt be ſubject chiefly to thoſe which deſcend from the brain; thus acting almoſt uniformly, unleſs in particular agitations of the whole nervous ſyſtem. And this agrees well with the fact, and with the uſes generally aſſigned to theſe muſcles, viz. thoſe of keeping the eye in a moderate ſuſpenſion always, and drawing it out on eminent occaſions.

Eighthly, The circumſtances which occaſion ſquinting in young children, agree well with the theory here propoſed. Thus, if a child be laid ſo into his cradle, as that one eye ſhall be covered, the external influences of light cannot operate upon it. And if this be often repeated, eſpecially while the aſſociation which confirms the congruity of the motions is weak, the eye which is covered will obey the influences which deſcend from the brain, and turn upwards and inwards for the moſt part. What turns the ſcale in favour of this poſition, remains to be inquired.

The ſecond of the external motions is that of the eye-lids, or the actions of the *elevator*, and *orbicularis palpebrarum*. What excites the firſt to conſtant action during the whole time that the new-born child is awake, is difficult to ſay. Perhaps the action of light upon the white of the eye, ſending vibrations under the upper eye-lid, and thence into the fibres of the *elevator*: or the direct action of light through the ſkin; for it is a cutaneous muſcle: or influences which deſcend into the third pair from the ſecond, *i. e.* the optic nerve: or the friction from the globe of the eye in its motions, which may alſo make the eye-lid ſympathize in motion with the eye: or the aggregate of all theſe. As to the *orbicularis*, it is evidently put into action by irritations affecting the eye, as from duſt, flies, &c. even in adults.

The third of the external motions, or the contraction of the lacrymal, and other neighbouring glands, ariſes from irritations in the eye, noſe, *fauces*, and ſcalp of the head. The manner in which theſe irritations operate, has been ſufficiently explained under *Prop.* 53.

Of the internal motions I will conſider the contraction of the greater and leſſer rings together, as proceeding from the ſame cauſes, and being cotemporaneous; and, for the ſame reaſons, the contraction of the radiated fibres, and ciliar ligament, together alſo. By the firſt the eye is fitted for diſtinct viſion at ſmall diſtances, by the other at great ones. Thus let us ſuppoſe a candle to be brought nearer and nearer to the child's

child's eye. It is evident, that the quantity of light which falls upon the eye will grow greater and greater. It will therefore agitate all the circular fibres of the *iris* more powerfully, and particularly the greater and leſſer rings; *i. e.* it will bend the *cornea* into a greater convexity, bring the origin of the ciliar ligament nearer to its inſertion in the *capſula* of the cryſtalline, *i. e.* ſuffer the *capſula* to become more convex alſo, and narrow the pupil, *i. e.* leſſen the *radius* of diſſipation. The image of the candle upon the *retina* may therefore continue to be diſtinct, as it approaches, by this mechanical influence of light upon the eye. And, for the ſame reaſons, it may continue diſtinct, as it recedes. But there are limits on both hands. And thus the conformations of the eye neceſſary for diſtinct viſion, according to Dr. *Jurin*'s moſt accurate account of this matter, are brought about automatically, and ſuitably to the general theory of theſe papers.

However, it is alſo probable, that the light which paſſes in at the pupil, has great efficacy in contracting both the greater and leſſer rings, as may be concluded from the immobility of the pupil in a *gutta ſerena*; alſo becauſe, on this ſuppoſition, the light, which paſſes in at the pupil muſt, by contracting the leſſer ring, become a check and guard againſt its own too free admiſſion, which is agreeable to the tenor of nature in like inſtances. The *retina* extends to the greater ring, and may ſend ſome nervous fibres to it, and even to the *iris*.

One or both of theſe actions of light ſeem to increaſe the ſecretion and circulation of the aqueous humour in new-born children, ſo as to fit the eye for viſion, which it is not, through the deficiency and muddineſs of the aqueous humour, till ſome time after birth. This again may be conſidered as a circumſtance, that favours our preſent conjectures.

As to the radiated fibres of the *iris*, and the ciliar ligament, they do not ſeem ſo much to be excited to action by any external influence, as to be kept in a ſtate of conſtant ſmall activity by the vibrations which deſcend from the brain. When therefore the rings are relaxed, the radiated fibres will open the pupil, and the ciliar ligament draw out the *capſula* of the cryſtalline to a flatter ſhape, and thus ſuit the eye to obſcure and diſtant objects.

PROP. LXIII.

To explain the Manner and Degree, in which the automatic Motions, mentioned in the laſt Propoſition, are influenced by voluntary and ſemivoluntary Powers.

Since the motions of the eyes are in every inſtance congruous, from the inſtant of birth, an aſſociated tendency thereto is generated ſooner, and more firmly eſtabliſhed, than perhaps in any other caſe. As therefore the external influence of light by growing languid, comes to have leſs and leſs effect perpetually for this purpoſe, ſo the aſſociated

aſſociated tendency grows ſtronger and ſtronger; and the ſum total of both may perhaps be always about equal.

However, this congruity does not ſeem to be ſo great in children as in adults, who can direct their optic axes by a perfectly voluntary power to the object which they intend to view with attention. We muſt examine therefore, how the almoſt perfect congruity becomes an entirely perfect one.

Now here we are to obſerve, that the almoſt perfect congruity begets an almoſt perfect correſpondency in the points of the *retina*; and that hence it will follow by degrees, that the leaſt deviation from perfect congruity will occaſion double viſion, and confuſion. But theſe are unpleaſant and inconvenient, whereas ſingle and diſtinct viſion is pleaſant and convenient. Whence every recurrency of the laſt will tend to confirm it, of the firſt to exclude it, from principles already laid down, *Prop.* 22. *Cor.* 1. The child will therefore come to a perfect congruity at laſt, *i. e.* to direct his optic axes preciſely to the point which he intends to view. The voluntary power of ſuiting the internal motions to the diſtance muſt be ſuppoſed to grow perfect about the ſame time.

It agrees with this method of reaſoning, that perſons who loſe the ſight of one eye in their childhood or youth, though long after the external action of light has loſt its efficacy for making the motions congruous, generally ſquint a little with that eye.

The perſons who ſquint, preſerving the ſight of the ſquinting eye, are obliged to move their eyes in a congruous manner, for the ſame reaſon as others, viz. to avoid double viſion, though the poſition be incongruous.

The conſtant action of the *elevator palpebræ ſuperioris* in adults ſeems to be entirely from cuſtom, *i. e.* aſſociation, being kept up in a more particular manner by the variety of viſible objects, which engage our attention during the courſe of the day.

It is generally ſome time before children get the voluntary power of ſhutting the eyes gently, or of ſhutting one and not the other. They can ſhut them with force ſoon, this action recurring often from motes in the eyes, pain of any kind, &c. The precedure here is of the ſame kind as in other voluntary actions.

The internal motions depend originally upon the greater or leſs quantity of light which falls upon the *cornea* and *iris*, as has been obſerved already. But the nearneſs and remoteneſs of the luminous object are the reſpective aſſociates of theſe. The muſcular rings therefore, which at firſt contracted only when very luminous objects approached, will afterwards contract when moderately luminous ones do. And thus viſion will be made diſtinct in general. But diſtinct viſion, by recurring, will perpetuate and perfect itſelf, and indiſtinct check and aboliſh itſelf, from the agreeableneſs and diſagreeableneſs accompanying them reſpectively, by *Prop.* 22. *Cor.* 1. till at laſt the child gets a perfectly voluntary power of ſuiting his eyes to the diſtance. Adults

ſeem

ſeem to have a power of preparing the eyes previouſly to ſee at a propoſed diſtance; and ſome to have a ſemivoluntary power of contracting and dilating the pupil, viz. by fancying a bright object near, and a dark one far off; though the quantity of light which falls upon the eye remain the ſame.

SECT. V.

OF THE SENSE OF HEARING.

PROP. LXIV.

To aſſign the immediate Organ of Hearing, and to explain in general the Uſes of the ſeveral Parts of the external and internal Ear.

THE immediate organ of hearing appears to be the ſoft portion of the ſeventh pair of nerves diſtributed in the *cochlea*, and ſemicircular canals. What the particular uſes of theſe cavities are, is not known. They bear ſome obſcure likeneſs to the inſtruments commonly made uſe of for increaſing either the loudneſs of ſounds, or the effects of them upon the ear; juſt as the coats and humours of the eye reſemble lenſes. The auditory nerve is alſo like the optic in detaching no branches off to the neighbouring parts; and there are many other inſtances of reſemblance between theſe two moſt refined and ſpiritual, if one may ſo ſay, of our ſenſes; ſome of which I ſhall mention in the courſe of this ſection.

The auricle and *meatus auditorius* are cartilaginous, and ſeem by this means to be peculiarly fitted for receiving and retaining the vibrations of the air, and for communicating them to the *membrana tympani*.

This membrane appears to be kept in a ſtate of conſtant tenſion by muſcles, that act upon the ſmall bones in different ways, and thus to be fitted for vibrating ſynchronouſly to the ſeveral ſounds, which affect it. Agreeably to which, the degree of tenſion varies, ſo as to be leſs when the *muſculus externus* and *obliquus* act, greater when theſe are relaxed, and the *internus* acts. The degree of ſenſibility both in the membrane itſelf, and in the whole organ, is probably greater when the tenſion is greater.

The vibrations of the air ſeem to ſhake off the *mucus* which lodges upon the *membrana tympani* in the new-born child, juſt as the action of light fits the *cornea*, and aqueous humour, for viſion.

The

The euſtachian tube ſerves to ſupply the cavity of the *tympanum* with air, to carry off the vapour which exhales into it, and perhaps to increaſe the effects of ſounds by the tremors in its cartilaginous extremity, and particularly thoſe of the perſon's own voice.

The *ſtapes*, its muſcle, and the *foramen ovale*, ſeem deſigned to convey the vibrations of the *membrana tympani* to the auditory nerve in a preciſe manner. But the vibrations excited in its æther may be much more frequent than thoſe of the *membrana tympani*, as has been already obſerved.

There does not appear to be any method for conveying air into the cavities of the *veſtibulum*, *cochlea*, and ſemicircular canals, nor any neceſſity or uſe for it there. The great hardneſs of the bony part of the organ of hearing may make it more eaſily ſuſceptible of vibrations. Agreeably to which, it may be obſerved, that we can hear imperfectly, though the ears, noſe, and mouth, be all ſtopped, and conſequently all acceſs to the *membrana tympani* by the vibrations of the air denied. The vibrations are here excited probably in the cartilages of the auricle and *meatus*, and in the bones of the ſkull, and thus communicated to the *cochlea*, and ſemicircular canals. It ſeems to agree with this, that ſome partially deaf perſons can hear beſt, when driven in a coach over ſtones or gravel; *i. e.* when all the parts of their bodies, and particularly thoſe of the bones, are put into a vibrating motion.

The bony part of the organ of hearing ſeems to come to its full ſize early in life. Is not the final cauſe of this, that one part may, on account of its ſize, be moſt diſpoſed to vibrate with one tone, another with another? And does not this hold particularly in reſpect of the *lamina ſpiralis?* For thus the ſame tone would be affixed and aſſociated to the ſame nerves, ſo as to affect them peculiarly, from childhood or youth to old age.

PROP. LXV.

To examine how far the Phænomena of muſical and other inarticulate Sounds are agreeable to the Doctrine of Vibrations.

Here we may conſider, firſt, the different ſtrength of ſounds. Now, as this ariſes from the different condenſation of the air in the pulſes, ſo the effect which it has upon the *membrana tympani*, the membrane of the *foramen ovale*, and the nerves of hearing, muſt be different likewiſe, and afford the mind a ſufficient foundation for diſtinguiſhing ſounds in reſpect of ſtrength and feebleneſs.

Secondly, The gravity and acuteneſs of ſounds ariſe from the ſloweſs or frequency of the vibrations. Now, as the vibrations of the *membrana tympani* are ſynchronous to thoſe of the air, they may either excite ſynchronous ones in the particles of the auditory nerves, and thus be diſtinguiſhed from each other in reſpect of frequency by the mind; or if every pulſe of the air, and oſcillation of the *membrana tympani*, excite innumerable infiniteſimal

infiniteſimal vibrations in the auditory nerves, the renewal of theſe at different intervals according to the different gravity or acuteneſs of the ſound will, however, afford a like criterion.

It may be remarked, that grave ſounds are in general ſtrong, acute ones feeble. For the bodies which yield grave ſounds are in general large, and conſequently will make an impreſſion upon the air by a large number of trembling particles.

Thirdly, All very loud noiſes are diſagreeable. Now it is eaſy to conceive, that very violent agitations of the *membrana tympani* may produce the ſolution of continuity in the ſmall medullary particles of the auditory nerve. An inflammation in the ſmall veſſels of the auditory nerve may render it ſo ſuſceptible of violent vibrations, as to be hurt by gentle ſounds, as ſometimes happens in diſtempers; and to produce that acuteneſs in the ſenſe of hearing, which anſwers to the *nyctalopia* in the eye.

Fourthly, Single muſical, *i. e.* uniform ſounds, whether vocal or inſtrumental, are pleaſant in proportion to their loudneſs, provided this be not exceſſive. We muſt therefore ſuppoſe here, that the repeated impulſes of the air, at equal diſtances, make the vibrations approach to the ſolution of continuity; yet ſtill ſo as to fall ſhort of it.

Fifthly, Two muſical notes ſounded together, ſuppoſe upon an organ or violin, afford a greater original pleaſure than one, provided the ratios of their vibrations be ſufficiently ſimple. Thus any note ſounded with its eighth, fifth, fourth, third major or minor, ſixth major or minor, affords pleaſure, the ratios being here, reſpectively, thoſe of 1 to 2, 2 to 3, 3 to 4, 4 to 5, 5 to 6, 3 to 5, and 5 to 8, which are all very ſimple ones. But a note with its flat or ſharp, ſecond, or ſeventh, or flat fifth, is originally diſagreeable. It may be obſerved alſo, that concords ſeem to be originally pleaſant in proportion to the ſimplicity of the ratios by which they are expreſſed, *i. e.* in the order above ſet down. Hence we may perhaps ſuſpect, that even the concords were originally unpleaſant to the ear of the child, from the irregularity of the vibrations which they impreſs upon the *membrana tympani*, and conſequent ſolution of continuity; and that they fell at laſt within the limits of pleaſure, as many other pains do, by repetition. For thus thoſe concords in which the ratios are ſimpleſt would become pleaſant firſt, and the others would continue to excite pain, or to border upon it. It is agreeable to this, that diſcords become at laſt pleaſant to the ears of thoſe that are much converſant in muſic, and that the too frequent recurrency of concords cloys.

Sixthly, Concords ſounded in ſucceſſion ſeem to have the ſame effect, in kind, upon the ear, as when ſounded together, only leſs in degree. But diſcords in ſucceſſion do not offend, unleſs the chromatic ſucceſſion of half notes, or ſome ſuch remarkable ones, and even theſe pleaſe at laſt. All this follows eaſily from the laſt paragraph; and the preſent paragraph, with the two laſt, taken together, contain the principal grounds of the natural and original pleaſures of muſic. The pleaſures which it derives from aſſociation will be conſidered hereafter.

PROP. LXVI.

To examine how far the Judgments which we make concerning the Diſtance and Poſition of the ſounding Body, are agreeable to the Doctrine of Aſſociation.

Sounds ought to decreaſe in the reciprocal duplicate ratio of the diſtance, did they not receive ſome ſupport from the reflection of the bodies over which they paſs. This makes them decreaſe in a leſs ratio; however, they do decreaſe in general with the diſtance; and this decreaſe, being an aſſociate of the increaſe of diſtance, ought to ſuggeſt it to the imagination. And, agreeably to this, we may obſerve, that, when the wind oppoſes the ſound of bells, they appear farther off; when a perſon calls through a ſpeaking trumpet, he appears nearer, than at the true diſtance.

As to the poſition of the ſounding body, we have no clear or certain criterion, unleſs it be very near us; ſo as that the pulſes may ſtrike one ear, or one part of the head, conſiderably ſtronger than another. Hence we judge of the poſition of the ſpeaker, or ſounding body, by the eye, or by ſome other method independent on the ear. And thus, if from ſome miſtaken preſumption a voice, or ſound, ſhall be deemed to come from a quarter different from the true place of it, we ſhall continue in that error from the ſtrength of that miſtaken preſumption.

By laying theſe things together, and alſo conſidering farther, that indiſtinctneſs in articulate ſounds is an aſſociated mark of diſtance, we may ſee how *ventriloqui*, or perſons that ſpeak in their throats, without moving their lips, impoſe upon the audience. Their voice is faint and indiſtinct, and therefore appears to come from a more diſtant quarter than the ſpeaker. The hearers look about therefore, and, being ſurprized, their imagination fixes ſtrongly upon that corner, or cavity, which appears moſt plauſible; and afterwards they continue to impoſe upon themſelves by the ſtrength of this prejudice.

PROP. LXVII.

To examine how far the Power of diſtinguiſhing articulate Sounds depends upon the Power of Aſſociation.

One may ſuppoſe the external and internal ear to be ſo formed, as that all the differences in the vibrations of the air, which arrive at the ear, may affect the auditory nerves with correſponding differences. Let us therefore firſt conſider in what manner different ſounds impreſs different vibrations upon the air.

Firſt, then, Since not only the parts about the throat, but thoſe of the mouth, cheeks, and even of the whole body, eſpecially of the bones, vibrate in ſpeaking, the figure of the

the vibrations impreſſed upon the air by the human voice will be different from that of the vibrations proceeding from a violin, flute, &c. provided the diſtance be not too great. This therefore may be conſidered as one help for diſtinguiſhing articulate ſounds from all others.

Secondly, Articulation conſiſts in breaking out from a whiſper into ſound, or cloſing the ſound in different manners, the organs of ſpeech being put alſo into different ſhapes, ſo as to join the differences mentioned in the laſt paragraph with various eruptions and interruptions, aſcents and deſcents of ſound. And thus each letter may be diſtinguiſhed from every other by hearing.

Thirdly, It is agreeable to all this, that it is difficult at great diſtances to diſtinguiſh the tone of one muſical inſtrument from another, or of any from the tone of a human voice, *cæteris paribus*; or to diſtinguiſh articulate ſounds from one another. For at great diſtances the vibrations of the air are circular to ſenſe, and all the aſcents, deſcents, eruptions, and interruptions of ſound, which diſtinguiſh one compound ſound from another, are confounded by numberleſs reflections from the intermediate bodies.

Fourthly, We may obſerve, that as the preſerving the diſtinction of place is the chief end of the coats and humours in the organ of ſight, ſo the diſtinction of time is of the greateſt importance in hearing. It ſeems probable therefore, that the *membrana tympani*, ſmall bones, and their muſcles, are ſo contrived, as by their actions to preſerve the diſtinction of time, *i. e.* to extinguiſh ſtrong ſounds, and to keep up weak ones, ſo as that the laſt may not be too much overpowered by the continuance of the firſt; juſt as the treble notes of a harpſichord would be by the baſs ones, did not the bits of cloth affixed to the jacks check the vibrations of the ſtrings in due time.

Having now ſhewn how articulate ſounds may be diſtinguiſhed from one another, and from all other ſounds; I next obſerve, that, in fact, the ſpeakers do not pronounce ſo articulately and diſtinctly in common converſation, as to furniſh the hearers with the requiſite criterions according to the foregoing theory; but that we arrive at a facility of underſtanding one another's diſcourſe, chiefly by the power of aſſociation.

And, firſt, It is needleſs to pronounce every letter ſo as to diſtinguiſh it from all others. For then words, which are compoſed of letters, would each have as many criterions as they have letters, and even more; for the order of the letters is a criterion, as well as the ſound of each letter. In like manner, ſentences would have as many compound criterions as they have words, beſides the criterion ariſing from the particular order of the words.

Secondly, Since words are formed from combinations, not according to any rule, which brings up all the combinations of twos, threes, &c. in order, but by particular aſſociations, agreeably to the nature of each language, ſince alſo ſentences are formed in the ſame way, the ſeveral component parts of words and ſentences ſuggeſt each other, and alſo the whole words and ſentences by the power of aſſociation. Thus the begin-

ning is commonly obſerved to ſuggeſt the whole, both in words and ſentences; and the ſame is true, in a leſs degree, of the middles and ends.

Thirdly, The ſubject matter of the diſcourſe, the geſtures uſed in ſpeaking, a familiar acquaintance with the particular voice, pronunciation, geſtures, &c. of the ſpeaker, and other aſſociated circumſtances, contribute greatly alſo. And therefore, on the other hand, we find it difficult to diſtinguiſh proper names, and the words of an unknown language, and to underſtand a perſon that is a ſtranger, or that uſes no action.

We may ſee alſo, that it is chiefly by the means of aſſociated circumſtances, that the ſounds uttered by *ventriloqui* ſuggeſt to us the words, which they are ſuppoſed to pronounce; for their articulations muſt be very incomplete, as they do not move their lips at all.

It is by a like ſet of aſſociated circumſtances that we are enabled to read with ſo much facility the irregular hand-writing of various perſons, and of ſome more than others, in proportion as we are better acquainted with the ſubject, language, hand-writing, &c.

PROP. LXVIII.

The Doctrine of Sounds illuſtrates and favours that of the Vibrations of the ſmall medullary Particles of the Brain, and nervous Syſtem.

For the theory of ſounds deduced from the nature of an elaſtic fluid, and the tremors of the particles of ſounding bodies, and afterwards verified, as it has been, by numerous experiments, becomes a guide to us in all inquiries into the vibrations of other elaſtic mediums, ſuch as the æther, and into the effects, which ſuch vibrations muſt impart to and receive from the ſmall particles, that are ſurrounded by the elaſtic medium. And the general tendency which is found in natural bodies, either to yield a ſound upon percuſſion, or at leaſt to ſupport and convey ſounds by receiving iſochronous vibrations, and reflecting them, ſhews, that there are latent active powers, in the ſmall parts of bodies, which diſpoſe them to vibrate. Now, if there be ſuch powers in the biggeſt component particles, analogy inclines one to expect them in the ſeveral deſcending orders.

The doctrine of ſounds does alſo furniſh us with an anſwer to one of the principal and moſt obvious difficulties attending the ſuppoſition, that all ſenſation, thought, and motion, is performed by vibrations in the medullary ſubſtance. For it may be objected, that ſuch a number of different vibrations, as ſeems to be required in certain caſes, can ſcarce exiſt together in the medullary ſubſtance. Thus it is not uncommon for a perſon to receive a ſeries of ſenſations, carry on a train of thought, and perform a courſe of external actions, which have little connection with each other, at the ſame time. Now to this we may anſwer, that vibrations as different from each other do, in fact,

fact, exiſt together in common air, in ſuch a manner as to be perceived diſtinctly. Thus a perſon may liſten to what part he pleaſes in a concert of muſic, and maſters in the art can liſten to more than one. They can alſo at the ſame time receive, attend to, and underſtand the vibrations of the air, ariſing from the diſcourſe of other perſons. But in whatever manner theſe different vibrations can exiſt together preciſely at the ſame inſtant, or rather ſucceed each other at infiniteſimal intervals, without confuſion; in the ſame manner may vibrations and vibratiuncles exiſt together, or ſucceed each other, without confuſion alſo, in the medullary ſubſtance: and by whatever power the ſoul is qualified to attend to, and diſtinguiſh from each other, theſe ſeveral vibrations of the air, by the ſame power may it correſpond to the vibrations in the medullary ſubſtance, ſo that each ſhall have its peculiar effect of producing the appropriated ſenſation, thought, and motion. It is to be obſerved farther, that there is a difficulty in performing both the things here mentioned; that confuſion does often ariſe; and that where any perſon is remarkable for doing more than one thing at once, it is in conſequence of great practice, and alſo of exquiſite mental powers. *i. e.* of an exquiſite make of the medullary ſubſtance, according to the theory of theſe papers.

PROP. LXIX.

To explain in what Manner, and to what Degree, agreeable and diſagreeable Sounds, contribute, in the Way of Aſſociation, to the Formation of our intellectual Pleaſures and Pains.

As all moderate and tolerably uniform ſounds pleaſe young children, and the orginal pleaſures from concords ſounded together, from the ſucceſſion of both concords and diſcords, and even from clear, muſical ſounds, conſidered ſeparately, remain with us through the whole progreſs of life, it is evident, that many of our intellectual pleaſures muſt be illuminated and augmented by them. And, on the contrary, harſh, irregular, and violently loud noiſes muſt add ſomething to the diſagreeableneſs of the objects and ideas, with which they are often aſſociated.

The pleaſures of muſic are compoſed, as has been already obſerved, partly of the original, corporeal pleaſures of ſound, and partly of aſſociated ones. When theſe pleaſures are arrived at tolerable perfection, and the ſeveral compounding parts cemented ſufficiently by aſſociation, they are transferred back again upon a great variety of objects and ideas, and diffuſe joy, good-will, anger, compaſſion, ſorrow, melancholy, &c. upon the various ſcenes and events of life; and ſo on reciprocally without perceptible limits.

The corporeal pleaſures from articulate ſounds are either evaneſcent from the firſt, or, however, become ſo very early in life. By this means we are much better qualified to receive information, with mental pleaſure and improvement, from them; and the

ear

ear becomes, like the eye, a method of perception ſuited to the wants of a ſpiritual being. And indeed when we compare the imperfections of ſuch as have never heard, with thoſe of perſons that have never ſeen, it appears, that the ear is of much more importance to us, conſidered as ſpiritual beings, than the eye. This is chiefly owing to the great uſe and neceſſity of words for the improvement of our knowledge, and enlargement of our affections; of which I ſhall have particular occaſion to treat hereafter. An accurate inquiry into the mental progreſs of perſons deprived of the advantages of language, by being born deaf, would be a ſtill better teſt of the theory of theſe papers, than a like inquiry concerning perſons born blind.

PROP. LXX.

To give an Account of the Ideas generated by audible Impreſſions.

THE ideas which audible impreſſions leave in the region of the brain, that correſponds to the auditory nerves, are, next to the ideas of ſight, the moſt vivid and definite of any; and all the obſervations above made upon the ideas of ſight may be applied to thoſe of hearing, proper changes and allowances being made. Thus, after hearing muſic, converſing much with the ſame perſon, in general diſorders of the brain, or particular ones of the nervous ſpaſmodic kind in the ſtomach, after taking opium, in dreams, in madneſs, trains of audible ideas force themſelves upon the fancy, in nearly the ſame manner, as trains of viſible ideas do in like caſes. And it may be, that in paſſing over words with our eye, in viewing objects, in thinking, and particularly in writing and ſpeaking, faint miniatures of the ſounds of words paſs over the ear. I even ſuſpect, that, in ſpeaking, theſe miniatures are the aſſociated circumſtances which excite the action, be it voluntary, or ſecondarily automatic. For children learn to ſpeak chiefly by repeating the ſounds which they hear, *i. e.* theſe ſounds are the aſſociated circumſtances, which excite to action. But if the ſound does this, the idea of it muſt get the ſame power by degrees. I grant indeed, that the pictures of words in the eye, and their ideas, may be like aſſociated circumſtances, exciting to ſpeak; and ſince it is neceſſary, according to the theory of theſe papers, that every ſemivoluntary, voluntary, and ſecondarily automatic action, ſhould be excited by an aſſociated circumſtance, one may reckon words ſeen, and their viſible ideas, amongſt the number of ſuch circumſtances. But words heard, and their audible ideas, have a prior claim; and, in perſons that cannot read or write, almoſt the only one. It confirms this, that in writing one is often apt to miſ-ſpell in conformity with the pronunciation, as in writing *hear* for *here*; for this may proceed from the audible idea, which is the ſame in both caſes; cannot from the viſible one. Where a perſon miſ-ſpells ſuitable to a miſpronunciation, which ſometimes happens, it can ſcarce be accounted for upon other principles. However,

However, in writing, the aſſociated circumſtance, which excites the action of the hand, is moſt probably the viſible idea of the word, not the audible one.

If it be objected to the ſuppoſition of theſe audible trains, that we ought to be conſcious of them, I anſwer, that we are in ſome caſes; which is an argument, that they take place in all, in a leſs degree; that the greater vividneſs of the viſible trains makes us not attend to, or recollect them, till the conſciouſneſs or memory be vaniſhed; and that even viſible trains do not appear as objects of conſciouſneſs and memory, till we begin to attend to them, and watch the evaneſcent perceptions of our minds.

The ideas of ſight and hearing together are the principal ſtorehouſe of the fancy or imagination; and the imaginative arts of painting and muſic ſtand in the ſame relation to them reſpectively. Poetry comprehends both by taking in language, which is the general repreſentative of all our ideas and affections.

As there is an artificial memory relative to the eye, by which trains of viſible ideas, laid up in the memory in a certain order, are made to ſuggeſt both things themſelves, and the order in which we deſire to remember them; ſo compendious trains of technical words formed into verſes may be made to ſuggeſt other words, alſo the numeral figures in a certain order; and, by this means, to bring to view, at pleaſure, the principles and materials of knowledge for meditation, inquiry, and more perfect digeſtion by the mind, as appears from Dr. *Grey*'s *Memoria Technica*. The viſible *loci* make a ſtronger impreſſion on the fancy, and therefore excel the audible ones in that view; but the audible ones have a much more ready and definite connection with the things to be remembered; and therefore ſeem moſt proper, upon the whole, in moſt branches of literature. And as Dr. *Grey*'s method is highly uſeful in general, ſo it is particularly excellent in reſpect of all memorables that are repreſented by numeral figures. For, when the numeral figures are denoted by letters, collections of them, ſuch as dates, and quantities of all kinds, make ſhort and definite impreſſions upon the ear; which are not only eaſy to be remembered, but alſo preſerve the order of the figures without danger of error: whereas neither the impreſſions which collections of figures make upon the eye, nor thoſe which their enunciations in words at length make upon the ear, can be remembered with facility or preciſion; becauſe neither figures, nor their names, cohere together, ſo as that the precedent ſhall ſuggeſt the ſubſequent; as the letters do in collections of them, capable of being pronounced. When the technical word coincides with, or approaches to, a familiar one, it is remembered with greater facility. Aſſociation is every where conſpicuous in theſe things.

PROP.

PROP. LXXI.

To explain the automatic Motions, which are excited by Impreſſions made on the Ear.

It does not appear at all improbable, that the vibrations, which are excited by ſounds in the cartilages of the auricle and *meatus auditorius*, ſhould paſs into the ſmall muſcles of the auricle, and there occaſion automotic motions. And I gueſs in particular, that, in very loud ſounds, the cartilages would be made to lie cloſer to the head. But the ſmallneſs of theſe muſcles, and the practice of binding down the ears of new-born children cloſe to the head, which reſtrains the natural action of theſe muſcles, whatever it be, prevent our making any certain judgment

As to the four muſcles which belong to the ſmall bones, it appears to me, that ſince the *externus* and *obliquus* lie out of the *tympanum*, expoſed to the common air, and are alſo ſo ſituated, that the *externus* may receive vibrations from the cartilage of the *meatus auditorius*, the *obliquus* from the cartilage of the *proceſſus ravianus*, into which it is inſerted, they muſt be much more affected by loud ſounds, than the *internus* or *muſculus ſtapedis*. It follows therefore, that the *membrana tympani* will be relaxed automatically by loud ſounds. Here therefore is another remarkable coincidence between efficient and final cauſes.

For what reaſons the *muſculus internus*, and *muſculus ſtapedis*, may act peculiarly in weak ſounds, is difficult to ſay. They may perhaps, as was above conjectured of the radiated fibres of the *iris*, depend chiefly on the influences which deſcend from the brain, and therefore act always, when the other two will give them leave. It is moſt probable, that the four muſcles act in various proportions and combinations, ſo as to anſwer a variety of purpoſes. But there is very little, that is ſatisfactory, to be met with in books of anatomy and phyſiology hitherto, concerning the peculiar minute uſes and functions of the ſeveral parts of the organ of hearing.

PROP. LXXII.

To explain the Manner and Degree, in which the automatic Motions, mentioned in the laſt Propoſition, are influenced by voluntary and ſemivoluntary powers.

Since grave ſounds are in general loud, acute ones weak, the relaxation of the *membrana tympani*, which firſt attends upon loud ſounds automatically, will afterwards by aſſociation, be made to attend upon grave ones, even though they are not loud; and, in like manner, the membrane will be tenſe from acute ſounds, though they ſhould be ſtrong; *i. e.* the membrane will, by aſſociation, be fitted to vibrate iſochronouſly with the ſeveral tones; juſt as the convexity of the *cornea* is made by aſſociation to ſuit itſelf to the ſeveral diſtances. The accommodation is at firſt groſs in both caſes; but is perfected

perfected afterwards from the view of pleaſure and convenience, by means of the frequent recurrency of the actions. See *Prop.* 22. *Cor.* 1.

We ſeem alſo to have a voluntary power of preparing the ear previouſly for very ſtrong, or very weak ſounds, which we expect to hear, juſt as it was before obſerved of the eye, that we can ſuit it previouſly to ſee at an expected diſtance. The generation of theſe powers is the ſame, as that of the other voluntary ones.

SECT. VI.

OF THE DESIRES OF THE SEXES TOWARDS EACH OTHER.

PROP. LXXIII.

To examine how far the Deſires of the Sexes towards each other are of a factitious Nature, and deducible from the Theory of theſe Papers.

HERE we are to obſerve, firſt, That when a general pleaſurable ſtate is introduced into the body, either by direct impreſſions, or by aſſociated influences, the organs of generation muſt ſympathize with this general ſtate, for the ſame reaſons as the other parts do. They muſt therefore be affected with vibrations in their nerves, which riſe above indifference into the limits of pleaſure from youth, health, grateful aliment, the pleaſures of imagination, ambition, and ſympathy, or any other cauſe, which diffuſes grateful vibrations over the whole ſyſtem.

Secondly, As theſe organs are endued with a greater degree of ſenſibility than the other parts, from their make, and the peculiar ſtructure and diſpoſition of their nerves, whatever theſe be, we may expect, that they ſhould be more affected by theſe general pleaſurable ſtates of the nervous ſyſtem than the other parts.

Thirdly, The diſtention of the cells of the *veſiculæ ſeminales*, and of the *ſinuſes* of the *uterus*, which take place about the time of puberty, muſt make theſe organs more particularly irritable then. It may perhaps be, that the acrimony of the urine and *fæces*, which make vivid impreſſions on the neighbouring parts, have alſo a ſhare in increaſing the irritability of the organs of generation.

Fourthly, Young perſons hear and read numberleſs things, in this degenerate and corrupt ſtate of human life, which carry nervous influences of the pleaſurable kind (be they vibrations, or any other ſpecies of motion) to the organs of generation. This will be better underſtood, if the reader pleaſes to recollect what was delivered above

concerning the methods, by which we learn to diſtinguiſh the ſenſations of the parts external and internal from each other. For it will be eaſy to ſee, that when we are once arrived at this power, the aſſociated circumſtances of any ſenſations, ſuch as the language that relates to them, will recal the ideas of theſe ſenſations.

Fifthly, The particular ſhame, which regards the organs of generation, may, when conſidered as an aſſociated circumſtance, like other pains, be ſo far diminiſhed as to fall within the limits of pleaſure, and add conſiderably to the ſum total.

Sixthly, The ſources here pointed out ſeem ſufficient to account for the general deſires, which are obſervable in young perſons; and which, when not allowed and indulged, may be conſidered as within the confines of virtue.

Seventhly, It is uſual for theſe deſires, after ſome time, to fix upon a particular object, on account of the apprehended beauty of the perſon, or perfection of the mind, alſo from mutual obligations, or marks of affection, from more frequent intercourſes, &c. after which theſe deſires ſuggeſt, and are ſuggeſted by, the idea of the beloved perſon, and all its aſſociates, reciprocally and indefinitely, ſo as in ſome caſes to engroſs the whole fancy and mind. However, this particular attachment, when under proper reſtrictions and regulations, is not only within the confines of virtue, but often the parent of the moſt diſintereſted, and pure, and exalted kinds of it.

Eighthly, When theſe deſires are gratified, the idea of the beloved perſon, and its aſſociates, muſt now be aſſociated with the ſtate of neutrality and indifference, that ſucceeds after gratification. Whence it appears, that that part of the affection towards the beloved perſon, which ariſes from groſs animal cauſes, cannot remain long at its height, and may fall very faſt. However, if the other ſources of affection grow ſtronger, the ſum total may continue the ſame, or even increaſe.

Ninthly, When impure deſires are allowed, indulged, and heightened voluntarily, it is evident from the doctrine of aſſociation, that they will draw to themſelves all the other pleaſures of our nature, and even by adhering to many neutral circumſtances, convert them into incentives and temptations. So that all the deſires, deſigns, and ideas of ſuch perſons are tainted with luſt. However, the diſeaſes and ſufferings, bodily and mental, which this vice brings upon men, do, after ſome time, often check the exorbitancy of it, ſtill in the way of aſſociation. But impure deſires ſubſiſt, like vicious ones of other kinds, long after the pains outweigh the pleaſures, inaſmuch as they muſt be ſuppoſed not to begin to decline till the pains apprehended to ariſe from them, and thus aſſociated with them, become equal to the pleaſures.

Tenthly, It appears from the courſe of reaſoning here uſed, that impure and vicious deſires, indulged and heightened voluntarily, can by no means conſiſt with a particular attachment and confinement; alſo that they muſt not only end frequently in indifference but even in hatred and abhorrence. For the proper mental ſources of affection are not only wanting in theſe caſes, but many diſpleaſing and odious qualities and diſpoſitions of mind muſt offer themſelves to view by degrees.

Eleventhly,

Eleventhly, As the deſires and pleaſures of this kind are thus increaſed by aſſociated influences from other parts of our natures, ſo they are reflected back by innumerable aſſociated methods, direct and indirect, upon the various incidents and events of life, ſo as to affect in ſecondary ways even thoſe who have never experienced the groſs corporeal gratification. And, notwithſtanding the great and public miſchiefs, which ariſe from the ungovernable deſires of the vicious, there is great reaſon, even from this theory, to apprehend, that, if this ſource of the benevolent affections was cut off, all other circumſtances remaining the ſame, mankind would become much more ſelfiſh and malicious, much more wicked and miſerable, upon the whole, than they now are.

Twelfthly, I have hitherto chiefly conſidered how far the preſent ſubject is agreeable to the doctrine of aſſociation, but, if phyſicians and anatomiſts will compare the circumſtances of the ſenſations and motions of theſe organs with the general theory delivered in the firſt chapter, they may ſee conſiderable evidences for ſenſory vibrations, for their running along membranes, and affecting the neighbouring muſcles in a paticular manner: they may ſee alſo, that muſcular contractions, which are nearly automatic at firſt, become afterwards ſubject to the influence of ideas.

Thirteenthly, The theory here propoſed for explaining the nature and growth of theſe deſires ſhews in every ſtep, how watchful every perſon, who deſires true chaſtity and purity of heart, ought to be over his thoughts, his diſcourſes, his ſtudies, and his intercourſes with the world in general, and with the other ſex in particular. There is no ſecurity but in flight, in turning our minds from all the aſſociated circumſtances, and begetting a new train of thoughts and deſires, by an honeſt, virtuous, religious attention to the duty of the time and place. To which muſt be added great abſtinence in diet, and bodily labour, if required.

SECT. VII.

OF OTHER MOTIONS, AUTOMATIC AND VOLUNTARY, NOT CONSIDERED IN THE FOREGOING SECTIONS OF THIS CHAPTER.

PROP. LXXIV.

To examine how far the Motions of the Heart, ordinary and extraordinary, are agreeable to the Theory of theſe Papers.

HERE I obſerve,

Firſt, That the motion of the heart is conſtant, more equable than any other in the body, and cannot be ſuppoſed to proceed from impreſſions made on the neighbouring parts; which things agree well together upon the ſuppoſition of the doctrine of vibrations: for thus it cannot proceed from the firſt or fourth ſource of motory vibrations; and if it proceeds from the ſecond and third, it ought to be conſtant, and nearly equable.

Secondly, We are not to inquire, how the heart is firſt put into motion in the fœtus, but only how its ordinary motions may be continued, by means of vibrations deſcending from the brain, after they are once begun.

Now, for this purpoſe, let us ſuppoſe, that the auricles, with the beginnings of the pulmonary artery and aorta, have finiſhed their contractions; and that the ventricles and coronary veſſels are full. It follows that the ventricles will now be excited to contraction by three cauſes, viz. by the vibrations which have continued to deſcend freely into their fibres, ever ſince their laſt contraction was finiſhed, by their diſtention from fulneſs, and by the motion and impulſe of the blood in the coronary veſſels: but from the moment that the ventricles begin to contract, the auricles and arteries will begin to fill, and will be fulleſt at the inſtant when their contraction is finiſhed. The auricles and arteries muſt therefore begin to contract at this inſtant, from deſcending vibrations and diſtention, and the ventricles to be relaxed and filled, the vibrations in their fibres being checked by their paſt contraction. Let theſe actions be completed, and the heart will be in the circumſtances firſt ſuppoſed, *i. e.* the ventricles will be ready for a freſh contraction, and ſo on alternately, as long as life continues.

Thirdly, The vibrations which keep up the heart's motion, are nearly allied to thoſe ariſing from heat; for the ſecond ſource of motory vibrations is the reſidue of all the vibrations excited in the various parts of the body; and the third ariſes chiefly from the heat of the blood. We may expect therefore, that the heart ſhould contract either more frequently, or more ſtrongly, or both, when the body is heated. And thus it is,

as

as may appear from obſervations upon the pulſe in fevers, in ſleep, after eating, in pains or diſtempers attended with an increaſe of heat, &c. in which the motion of the blood is increaſed; whereas in nervous pains attended with coldneſs of the extremities, the pulſe is low and ſlow.

Fourthly, In the declenſion of fevers the pulſe is quick and feeble. It is feeble, becauſe the whole body is ſo; and quick, partly from the new habit ſuperinduced by the heat in the beginning of the fever; partly, becauſe in fevers the heart is always kept nearly full, *i. e.* nearly at ſuch a degree of diſtention as incites it to contraction, the principal cauſes of which are the weakneſs and inactivity of the body: hence in general the pulſe is quick and feeble in perſons of relaxed habits; the contrary in ſtrong ones.

Fifthly, The pulſe is quick in young and ſmall animals; ſlow in old and large ones. For this, various reaſons may be aſſigned; as firſt, that if the velocity wherewith the ſides of the heart move towards each other be the ſame, the contraction muſt be ſooner accompliſhed in ſmall hearts than in large ones. Secondly, that the fibres in young animals are irritable, and ſoon excited to contraction, by diſtention, &c. Thirdly, that the contraction is performed ſlowly in old animals; and, fourthly, that ſhort fibres are perhaps ſooner excited to contraction than long ones, it being neceſſary perhaps, that the vibrations ſhould be reverberated from each end of the fibres, for many ſucceſſions, before they can riſe to a certain pitch. It agrees with this, that reciprocal motions are more frequent in general, and *cæteris manentibus*, as the animal is leſs; that the limbs have both long and ſhort flexors and extenſors, the firſt for great degrees of motion, the laſt for making a quick beginning; that the capſular ligaments of the joints have ſhort muſcular fibres inſerted into them, in order to keep them from being pinched between the bones in the motions of the joints, as *Winſlow* has obſerved; which they could not do, had not their contraction the ſtart of the contractions which move the joint; and, laſtly, that the fibres which compoſe the heart, are all of equal lengths, according to Dr. *Stewart*'s analyſis of them. See *Phil. Tranſ. n.* 460.

Sixthly, The heart may move inceſſantly without fatigue, if we only ſuppoſe the recruits to be ſufficient, and the degree of motion to be within due limits. And it may be, that in labouring men the muſcles of the limbs are as much exerted upon the whole as the heart. The warmth in which the heart is kept, and its receiving nerves from the eighth pair and intercoſtal, which ſeem to be particularly exempted from venal compreſſion, deſerve notice here: but the conſtant motion of the blood is principally to be conſidered, being the cauſe as well as the effect of the conſtant motion of the heart.

Seventhly, Since lying down prevents or alleviates the fainting which ſometimes happens during bleeding, one may ſuppoſe that this fainting, and the conſequent abatement or ceſſation of the motion of the heart ariſe, becauſe a quantity of blood, ſufficient to keep up the vibrations in the brain, could not aſcend thither in an erect poſture.

Eighthly,

Eighthly, Sudden and violent pains, ſuch as thoſe from wounds, increaſe the motion of the heart. This may be accounted for from the violent vibrations which aſcend to the brain, and are thence propagated to the heart. But may not vibrations aſcend alſo directly from the wounded part, along the courſe of the arteries and veins, to the heart?

Ninthly, All the paſſions of the mind increaſe the motion of the heart, as might be expected: but melancholy, when it makes men inactive, and uninfluenced by the impreſſions of objects, has a contrary effect, which is equally ſuitable to the foregoing theory.

Tenthly, In mortifications, alſo in the languid ſtate that ſucceeds acute diſtempers, &c. the pulſe ſometimes intermits, ſuppoſe once in 5, 10, 20, &c. times, the interval being about double, and the ſtrength of the pulſe which ſucceeds the intermiſſion about double alſo. Here the force of the heart ſeems to languiſh, and the time of contraction of the ventricle to be protracted, till a ſecond contraction of the auricle intervenes, and protracts the ventricle's contraction ſtill farther, viz. to nearly twice the interval. The heart muſt therefore be ſurcharged, and contracting ſtronger from this reſpite, muſt ſend, as it were, a double quantity of blood into the aorta, *i. e.* make the pulſe that ſucceeds much ſtronger. And this intermiſſion may return at greater or leſs intervals, according to the circumſtances, while this weakneſs of the heart continues: it may alſo remain, when once eſtabliſhed, from habit, or aſſociation.

This intermiſſion may perhaps rather be accounted for thus: in languid ſtates the blood is accumulated in the beginning of the aorta. The aorta will not therefore receive much blood from the heart, though it does contract, *i. e.* no pulſe will be felt, *i. e.* the interval will be double: the ſucceeding pulſe will be ſtrong, from the now greater emptineſs of the aorta, and fulneſs of the heart: the intermiſſion will alſo return when the accumulation in the aorta does. It agrees with this account, that theſe intermiſſions are uſually felt in the region of the heart by the patients. May not intermiſſions ariſe from both cauſes in different circumſtances?

Eleventhly, When the pulſe flutters from flatulencies and ſpaſms in the ſtomach and bowels, it appears that a ſudden ſtop is put to the blood of the aorta, which by ſurcharging the left ventricle at once, makes it contract at a different time from the right, and not at a due interval from the contraction of the auricles: for this fluttering of the pulſe attacks generally in an inſtant, and often upon a fruitleſs effort to expel wind from the ſtomach. When the contractions of the ventricles are once become aſynchronous and inharmonious to thoſe of the auricles, it may require ſome time to rectify this, and eſpecially while there is an impediment to the blood's motion through the aorta. This diſorder may likewiſe continue through habit and aſſociation, and recur perpetually from leſs and leſs cauſes. The intermiſſion of the pulſe, conſidered in the two preceding paragraphs, is often cauſed by flatulencies, as well as the fluttering of it, mentioned in this.

Twelfthly,

Twelfthly, The motions of the heart remain in their original automatic ſtate more than any other in the body; the reaſons of which are, that the common motions are equally aſſociated with every thing, *i. e.* peculiarly ſo with nothing; and that very few impreſſions make changes in the motions of the heart ſo great and ſudden, as to ſubject it to the ideas of theſe impreſſions: however, as great and ſudden changes are ſometimes brought on by pain, fear, ſurprize, joy, &c. we ſeem to have a ſemivoluntary power to alter the motion of the heart immediately, by introducing ſtrong ideas, our power of introducing theſe being ſemivoluntary: nay, it may be poſſible for perſons in very particular circumſtances to acquire ſtill greater degrees of power over the motion of the heart.

PROP. LXXV.

To examine how far the Action of Reſpiration, ordinary and extraordinary, alſo the particular Actions of Sighing, Coughing, Laughter, Sobbing, and ſhedding Tears from Grief, are agreeable to the foregoing Theory.

The firſt obſervation to be made here is, that common reſpiration is performed very feebly in new-born children. A ſlight diſpoſition therefore to alternate action in the diaphragm, and other muſcles of reſpiration, may be ſufficient to account for that degree of reſpiration which takes place in new-born children. It is natural to expect, that reſpiration in them ſhould be feeble, ſince they muſt lean in this, as well as in other things, to their preceding ſtate *in utero*.

Secondly, That the vigorous impreſſions from the cold air, the hands of the midwife, &c. may excite the ſtrong reſpiration and crying which take place upon birth ordinarily, appears from the methods uſed to make the new-born child reſpire freely, where it fails to do this in extraordinary caſes; ſuch as applying volatiles to the noſe, pouring wine into the mouth, ſwinging it to and fro, &c. All theſe methods excite the muſcles to contraction, by making ſtrong impreſſions on the neighbouring ſenſory nerves. They are alſo very agreeable to the notion of vibrations.

Thirdly, if we ſuppoſe the diaphragm to have finiſhed its contraction, and conſequently the thorax to be raiſed, and the abdomen to be diſtended, expiration muſt ſucceed, for three reaſons, viz. becauſe the contraction of the diaphragm has checked the vibrations in its fibres, and therefore has diſpoſed them to relaxation; becauſe the elaſticity of the cartilages of the ribs tends to reſtore the thorax to a more depreſſed ſtate; and becauſe the fibres of the abdominal muſcles are excited to vibrations and contraction by their diſtention. Suppoſe now expiration to be completed, and the vibrations, which deſcend into the diaphragm from the ſecond and third ſource of motory vibrations, will renew its contraction, and conſequently the action of inſpiration; and ſo on alternately.

Fourthly, The diaphragm is the more diſpoſed to receive vivid vibrations in its fibres, from its nearneſs to the heart, and the warmth in which it is always kept. It

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deſerves notice here, that the diaphragm receives its nerves from the cervical pairs, not from the eighth pair and intercoſtal, as the neighbouring parts, the heart, ſtomach, &c. do. Perhaps it was requiſite, that it ſhould derive its nerves from the ſpinal marrow, ſince the other muſcles of reſpiration do. The nerves of the diaphragm are elongated during its contraction, the contrary to which happens in the nerves of other muſcles. They are alſo kept in conſtant motion by the conſtant motion of the thorax, through which they paſs; and this perhaps may contribute to the perpetual activity of the diaphragm.

Fifthly, The intercoſtal muſcles are diſpoſed to alternate contractions for the ſame reaſons as the diaphragm, though theſe reaſons do not hold in the ſame degree: However, ſince the contraction of the diaphragm, and conſequent diſtention of the abdomen, muſt raiſe the thorax, the contraction of the intercoſtal muſcles muſt from the firſt be ſynchronous to that of the diaphragm; and aſſociation will ſoon generate a permanent diſpoſition to this ſynchroniſm. It follows according to this theory from the vicinity of the internal intercoſtal muſcles to the external ones, that they ought to have the ſame action. And the ſame concluſion appears to reſult from anatomical conſiderations.

Sixthly, It may however be ſuppoſed, that the diaphragm and intercoſtal muſcles are, as it were, fatigued by conſtant action; and that they incline to ſympathize in inactivity with the reſt of the muſcles, eſpecially during ſleep. But then the accumulation of blood in the lungs, which the intermiſſion of reſpiration muſt occaſion, after it has once had a free paſſage through the lungs, by means of reſpiration, will produce ſo much uneaſineſs, *i. e.* ſuch vigorous vibrations, in the lungs, and particularly in their external membrane, which is continuous to the pleura, as will renew reſpiration.

It is agreeable to this, that if very young children ſleep upon a bed, they often fall into a great uneaſineſs from the ſtoppage of reſpiration, and recover from it by crying; and that rocking, or any other gentle motion, will prevent this. The laſt circumſtance is particularly favourable to the notion of vibrations.

The night-mare in adults appears to be a diſorder of the ſame kind. A full ſupper, and lying upon the back, diſpoſe to it, by hindering the free motion of the diaphragm. Motion, and eſpecially when attended with quick reſpiration, laughter, &c. prevent it by giving activity to the diaphragm. Shaking the perſon affected, calling to him, &c. rouſe from it, by exciting vibrations. The uneaſineſs from accumulated blood does the ſame thing at laſt.

It is eaſy to ſee, that if a like diſpoſition to inaction ſhould ariſe in the hearts of new-born children, or adults, the motion and diſtending force of the venal blood muſt renew their action for ſimilar reaſons. It is remarkably coincident with this, that forcing the venal blood upon the heart has in ſome caſes been found to renew its action even after death.

Seventhly, The actions of ſighing, crying, coughing, ſneezing, &c. by recurring frequently, and making all the muſcles, which can in any degree contribute to reſpiration

reſpiration, unite therein, enlarge the range of reſpiration by degrees, and make this action be performed with greater ſtrength perpetually in the young child. The increaſe f ſtrength in the whole muſcular ſyſtem muſt however be conſidered likewiſe.

Eighthly, The ſame actions have alſo a great ſhare in begetting voluntary reſpiration. For more muſcles are put into action in voluntary reſpiration, than in that which is ordinary.

Ninthly, it is agreeable to the foregoing theory, and to parallel obſervations on the heart, that reſpiration ſhould be ſtronger in fevers, in ſleep, and in general wherever the heat of the blood is increaſed, than in ordinary caſes. For reſpiration depends chiefly on the ſecond and third ſources of motory vibrations. By this means the force of the reſpirations anſwers in a general way, as it ought to do, to the force with which the blood is moved, or to the force of the heart.

I now come to the particular conſideration of the actions of ſighing, coughing, laughter, and ſobbing, and ſhedding tears from grief.

Sighing is an extraordinary contraction of the diaphragm. It ariſes not only from all cauſes, which accumulate the blood in the lungs, and thus excite the diaphragm to an extraordinary contraction; but alſo from ſuch compreſſions of the *abdomen* as hinder the free motion of the diaphragm for a time. For thus a diſpoſition to vibrate is accumulated in the fibres of the diaphragm. It is however to be obſerved, that this compreſſion of the *abdomen* does alſo accumulate blood in the lungs. The *abdomen* ſeems to be compreſſed in a ſtate of ſorrow, attention, &c. The frequent recurrency of ſighing makes it voluntary early in youth. But it is not performed voluntarily with the ſame force, as when from a preſſing uneaſineſs in the lungs.

Coughing ariſes from an uneaſy ſenſation in the wind-pipe fixing in the point of the *epiglottis*, as the ſenſation which cauſes ſneezing does in the tip of the noſe. This ought alſo to become voluntary, and to be weaker when voluntary, than when excited by a ſtrong irritation.

Hawking is a voluntary action, derived from coughing, as blowing the noſe is from ſneezing. Spitting is nearly related to theſe actions. It tallies perfectly with the foregoing theory, that children cannot hawk, ſpit, or blow the noſe, for ſome years.

Laughter is a naſcent cry, recurring again and again, as has been obſerved before, *Prop.* 26. By degrees it puts on a certain type, and recurs again and again according to that type, juſt as other actions. And it is excited in young children not only by the ſenſation of tickling, which lies, as it were, between pleaſure and pain, but by the apprehenſion of this, or any other apprehenſion ſufficiently moderate, by every ſurprize, and every mental emotion that lies between pleaſure and pain, and by all the aſſociates of theſe, as particularly by ſeeing others laugh. And thus children laugh more and more, and get a power of performing the action of laughter at pleaſure, though with leſs force than when it is excited by its proper cauſe in full vigour.

It is remarkable, that young brute creatures, in their ſportings with each other, make ſuch noiſes, as bear the ſame analogy to their violent cries, which laughter in us bears to crying from pain.

Bodily pain is attended with violent and irregular reſpiration on account of the violent and irregular vibrations, which, in this caſe, firſt aſcend to the brain, and then deſcend into the diaphragm. Hence mental pain, which is the offſpring of bodily pain, is attended alſo with violent and irregular reſpiration, *i. e.* with ſobbing. The crying which uſed to attend bodily pain in childhood is often checked in the mental pain of adults by fear, ſhame, &c. *i. e.* by a voluntary or ſemivoluntary power; and this ſeems to make the reſpiration ſo much the more irregular.

It is more difficult to account for the ſhedding tears from grief; for very young children are not apt to ſhed tears when they cry. It ſeems to me, that ſo great and general a diſorder in the brain, as that which takes place in violent grief, muſt affect the fifth pair of nerves in a particular manner, ſo as to influence the lachrymal glands both directly, and alſo indirectly, viz. by the ſtrong convulſions produced in the muſcles of the eyes and face. The membrane of the *fauces* and noſe are likewiſe affected in grief, as is evident from the ſenſations in the *fauces*, and tip of the noſe; and thus vibrations may run to the lachrymal glands through the *ductus ad naſum*, and lachrymal points, as obſerved before in irritations from ſternutatories, &c. Young children may not ſhed tears freely, becauſe very great and general diſorders of the brain, and its influence over the fifth pair of nerves, do not take place till intellectual aggregates are formed. And the like reaſon may hold in reſpect of brutes.

The actions of ſobbing and weeping are therefore, in part, deducible from aſſociation, *i. e.* are not merely automatic, in the firſt ſenſe of that word. Agreeably to which, they are in certain caſes manifeſtly ſubject to the voluntary power. Thus, ſome perſons can, by introducing imaginary ſcenes of compaſſion and ſorrow, ſo far agitate the brain, as to bring on the actions of ſobbing and weeping, though not in the ſame degree, as when they ariſe from a ſtrong real mental cauſe. They may likewiſe be caught by infection, from others, as laughter, and moſt of our other ſemivoluntary and voluntary actions, are; which is another argument of their dependence on aſſociation.

PROP. LXXVI.

To examine how far convulſive Motions of various Kinds, and the Actions of Yawning and Stretching in particular, are agreeable to the foregoing Theory.

Since ſtrong vibrations muſt, according to the foregoing theory, deſcend at once into the whole muſcular ſyſtem in general convulſions, we muſt ſeek for a cauſe of ſufficient extent for this purpoſe. Now there ſeem to be three kinds of vibrations, which may anſwer this condition: firſt, violent vibrations in the brain. Secondly, violent ones

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at the ſkin, ſuddenly checked. Thirdly, violent ones in the bowels or *uterus*, ſuddenly checked alſo, and thence running inſtantaneouſly over the whole nervous ſyſtem by means of the intercoſtal, or as *Winſlow* juſtly calls it, the great ſympathetic nerve.

Convulſions from compreſſions and inflammations of the brain, and moſt of thoſe which are termed epileptic, ſeem to be of the firſt kind. In epilepſies the irregular vibrations, excited in the medullary ſubſtance of the brain are perhaps ſo violent, as firſt to make the ſmall particles attract each other, and thus, by checking themſelves, to extinguiſh all ſenſe and motion. However, they may return after a ſhort time, and deſcend into the whole muſcular ſyſtem.

The ſtretchings and yawnings which happen in ague-fits, in going to ſleep and waking, the ſtartings to which ſome perſons are ſubject in going to ſleep, and the convulſive tremors, and rigidity in ague-fits, ſeem to be of the ſecond kind, or to ariſe from a ſudden check of vibrations at the ſkin. For in agues the ſurface is chilled, as it is alſo by the leaſt motions in going to ſleep, or waking. Agreeably to this, it may be obſerved, that, upon ſtepping into a cold bed, one is diſpoſed to general convulſions, like thoſe of ſtretching. Yawning may alſo depend in part upon a like check of violent vibrations in the mouth and *fauces*; for it is a motion excited in the neighbourhood, and is obſerved to accompany ſickneſs.

The ſtartings and convulſions which happen to children from gripes, to women from diſorders of the *uterus*, and to all perſons in general from certain poiſons, ſeem to be of the third kind, or to ariſe from vigorous vibrations in the *abdomen*, ſuddenly checked, and running into the whole ſyſtem by means of the intercoſtal nerve.

It has been obſerved already, that convulſive motions are apt to return from leſs and leſs cauſes perpetually, on account of the veſtiges which they leave of themſelves, and the power of aſſociated circumſtances. I will add here, that ſeeing a perſon in convulſions is apt to occaſion them in ſuch as are of nervous and irritable frames; and that there is reaſon to believe, that ſome perſons, who have been enthuſiaſts or impoſtors, have been able to throw themſelves into convulſions by a ſemivoluntary power, and particularly, as it ſeems, by introducing ſtrong ideas, and internal feelings.

It is commonly obſerved, that yawning is apt to infect a whole company, after one perſon in it has ſet the example; which is a manifeſt inſtance of the influence of aſſociation over motions originally automatic.

PROP. LXXVII.

To examine how far the Motions, that are moſt perfectly voluntary, ſuch as thoſe of Walking, Handling, and Speaking, with the voluntary Power of ſuſpending them, and their being formed according to Patterns ſet by thoſe with whom we converſe, are agreeable to the foregoing Theory.

It was neceſſary to deliver many things which properly relate to this propoſition under the twenty-firſt, in order to make the derivation of voluntary motion from automatic, by means of aſſociation, in ſome meaſure intelligible to the reader. I will now reſume the ſubject, and add what I am able for the full explication and eſtabliſhment of the theory propoſed.

Walking is the moſt ſimple of the three kinds of voluntary motion here mentioned, being common to the brute creation with man, whereas handling and ſpeaking are, in a manner, peculiar to him. His ſuperiority in this reſpect, when compared with the ſuperiority of his mental faculties, agrees well with the hypotheſis here advanced concerning handling and ſpeaking, viz. their dependence on ideas, and the power of aſſociation.

The new-born child is unable to walk on account of the want of ſtrength to ſupport his body, as well as of complex and decomplex motory vibratiuncles, generated by aſſociation, and depending upon ſenſations and ideas by aſſociation alſo. As he gets ſtrength he advances likewiſe in the number and variety of compound motions of the limbs, their ſpecies being determined by the nature of the articulations, the poſition of the muſcles, the automatic motions excited by friction, accidental flexures and extenſions made by the nurſe, &c. When he is tolerably perfect in theſe rudiments of walking, the view of a favourite plaything will excite various motions in the limbs; and thus if he be ſet upon his legs, and his body carried forward by the nurſe, an imperfect attempt to walk follows of courſe. It is made more perfect gradually by his improvement in the rudiments, by the nurſe's moving his legs alternately in the proper manner, by his deſire of going up to perſons, playthings, &c. and thence repeating the proceſs which has ſucceeded (for he makes innumerable trials, both ſucceſsful and unſucceſsful); and by his ſeeing others walk, and endeavouring to imitate them.

It deſerves notice here, that in the limbs, where the motions are moſt perfectly voluntary, all the muſcles have antagoniſts, and often ſuch as are of nearly equal ſtrength with themſelves; alſo, that the muſcles of the limbs are not much influenced at firſt by common impreſſions made on the ſkin, and ſcarce at all when the child is ſo far advanced as to get a voluntary power over them. For theſe things facilitate the generation of the voluntary power, by making the muſcles of the limbs chiefly dependent on the vibrations which deſcend from the brain, and alſo diſpoſing them to act from a ſmall balance in favour of this or that ſet of antagoniſts.

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When the child can walk up to an object that he desires to walk up to, the action may be termed voluntary, *i. e.* the use of language will then justify this appellation. But it appears from the reasoning here used, that this kind and degree of voluntary power over his motions is generated by proper combinations and associations of the automatic motions, agreeably to the corollaries of the twentieth proposition. Voluntary powers may therefore result from association, as is asserted in these papers.

When he is arrived at such a perfection in walking, as to walk readily upon being desired by another person, the action is esteemed still more voluntary. One reason of which is, that the child, in some cases, does not walk when desired, whilst yet the circumstances are apparently the same as when he does. For here the unapparent cause of walking, or not walking, is *will*. However, it follows from this theory, that all this is still owing to association, or to something equally suitable to the foregoing theory; *e. g.* to the then present strength or weakness of the association of the words of the command with the action of walking, to its proceeding from this or that person, in this or that manner, to the child's being in an active or inactive state, attentive or inattentive, disposed by other circumstances to move as directed, or to move in a different way, &c. A careful observation of the fact will always shew, as far as is reasonable to be expected in so nice a matter, that when children do different things, the real circumstances, natural or associated, are proportionably different, and that the state of mind called *will* depends upon this difference. This degree of voluntary power is therefore, in like manner, of an acquired nature.

Suppose an adult to walk, in order to shew his perfectly voluntary power; still his selecting this instance is owing to one association, and his performing the action to another, viz. to the introduction of the audible idea of the word, the visible one of the action, &c.

Walking passes into the secondarily automatic state more perfectly perhaps, than any other action; for adults seldom exert any degree of volition here, sufficient to affect the power of consciousness or memory for the least perceptible moment of time. Now this transition of walking, from its voluntary to its secondarily automatic state, must be acknowledged by all to proceed merely from association. And it seems to follow by parity of reason, that the transition of primarily automatic actions into voluntary ones may be merely from association also, since it is evident, that association has at least a very great and extensive influence there.

The complex artificial motions of the lower limbs, used in the several kinds of dancing, bear nearly the same relation to the common motions used in walking forwards, backwards, upwards, downwards, and sideways, as these common motions do to the simple rudiments above-mentioned, such as the flection and extension of the ancle or knee. Since therefore the voluntary and secondarily automatic power of dancing are plainly the result of association, why may we not suppose the same of the common motions in walking, both in their voluntary and secondarily automatic state? In learning

to dance, the ſcholar deſires to look at his feet and legs, in order to judge by ſeeing, when they are in a proper poſition. By degrees he learns to judge of this by feeling; but the viſible idea left partly by the view of his maſter's motions, partly by that of his own, ſeems to be the chief aſſociated circumſtance, that introduces the proper motions. By farther degrees theſe are connected with each other, with the muſic, and with other more and more remote circumſtances.

I have already ſhewn, in what manner children learn the voluntary and ſecondarily automatic power of graſping. How they learn the various complex motions, by which they feed and dreſs themſelves, &c. alſo how children and adults learn to write, to practiſe manual arts, &c. and in what ſenſes and degrees all theſe actions are voluntary, and ſecondarily automatic, and yet ſtill remain as purely mechanical, as the primarily automatic actions are, may now be underſtood from what has been already delivered under this propoſition. The method of playing upon muſical inſtruments has alſo been explained, ſo as to concur in eſtabliſhing the ſame concluſions.

In like manner, the account given of the action of ſpeaking might now be completed, and extended to all the modes of it, vulgar and artificial; and to ſinging, with its modes. I will add a few words concerning ſtammering, and the loſs of ſpeech by palſies.

Stammering ſeems generally to ariſe from fear, eagerneſs, or ſome violent paſſion, which prevents the child's articulating rightly, by the confuſion which it makes in the vibrations that deſcend into the muſcular ſyſtem; ſo that, finding himſelf wrong, he attempts again and again, till he hits upon the true ſound. It does not begin therefore in general, till children are of an age to diſtinguiſh right from wrong in reſpect of pronunciation, and to articulate with tolerable propriety. A nervous diſorder of the muſcles of ſpeech may have a like effect. When the trick of ſtammering has once begun to take place in a few words, it will extend itſelf to more and more from very ſlight reſemblances, and particularly to all the firſt words of ſentences, becauſe there the organs paſs in an inſtant from inactivity to action; whereas the ſubſequent parts of words and ſentences may follow the foregoing from aſſociation; juſt as, in repeating *memoriter*, one is moſt apt to heſitate at the firſt word in each ſentence.

A defect of memory from paſſion, natural weakneſs, &c. ſo that the proper word does not occur readily, occaſions ſtammering alſo. And, like all other modes of ſpeaking, it is caught, in ſome caſes, by imitation.

A palſy of the organs of ſpeech may be occaſioned in the ſame manner as any other palſy; and yet the muſcles of the lips, cheeks, tongue, and *fauces*, may ſtill continue to perform the actions of maſtication and deglutition ſufficiently well, becauſe theſe actions are ſimpler than that of ſpeech, and are alſo excited by ſenſations, which have an original influence over them.

A defect of memory may alſo deſtroy the power of ſpeaking, in great meaſure, though the organs be not much affected in a paralytical way. Thus a perſon who plays well

upon

upon a harpſichord, may by ſome years diſuſe become unable to play at all, though the muſcles of his hands be in a perfect ſtate, merely becauſe his memory, and the aſſociations of the motions of his fingers with the ſight of notes, with the ideas of ſounds, or with one another, are obliterated by diſtance of time, and diſuſe.

The ſuſpenſion of an action may be performed two ways, as before-mentioned, viz. either by putting the muſcles concerned in it into a languid inactive ſtate, or by making the antagoniſts act with vigour. In the firſt caſe, the whole limb is put into a ſtate of relaxation, and extreme flexibility; in the laſt, into a ſtate of rigidity. The voluntary power of the firſt kind is obtained by aſſociations with the languor that ariſes from fatigue, heat, ſleepineſs, &c. that of the laſt from the general tenſion of the muſcles, which happens in pain, and violent emotions of mind. Children improve in both theſe kinds of voluntary power by repeated trials, as occaſion requires, by imitation, deſire, &c. But they are both difficult for ſome time. Thus we may obſerve, that children cannot let their heads or eye-lids fall from their mere weight, nor ſtop themſelves in running or ſtriking, till a conſiderable time after they can raiſe the head, or bend it, open the eyes, or ſhut them, run or ſtrike by a voluntary power.

Imitation is a great ſource of the voluntary power, and makes all the ſeveral modes of walking, handling, and ſpeaking, conformable to thoſe of the age and nation in which a perſon lives in general, and to thoſe of the perſons with whom he converſes in particular. Beſides the two ſources already mentioned, *Prop.* 21. viz. the ſight of the child's own actions, and the ſound of his own words, it has many others. Some of theſe are the reſemblance which children obſerve between their own bodies, with all the functions of them, and thoſe of others; the pleaſures which they experience in and by means of all motions, *i. e.* imitations; the directions and encouragements given to them upon this head; the high opinions which they form, of the power and happineſs of adults; and their conſequent deſire to reſemble them in theſe, and in all their aſſociates. Imitation begins in the ſeveral kinds of voluntary actions about the ſame time, and increaſes not only by the ſources alleged, but alſo by the mutual influences of every inſtance of it over every other, ſo that the velocity of its growth is greatly accelerated for ſome time. It is of the higheſt uſe to children in their attainment of accompliſhments, bodily and mental. And thus every thing, to which mankind have a natural tendency, is learnt much ſooner in ſociety, than the mere natural tendency would beget it; and many things are learnt ſo early, and fixed ſo deeply, as to appear parts of our nature, though they be mere derivatives and acquiſitions.

It is remarkable, that apes, whoſe bodies reſemble the human body, more than thoſe of any other brute creature, and whoſe intellects alſo approach nearer to ours, which laſt circumſtance may, I ſuppoſe, have ſome connection with the firſt, ſhould likewiſe reſemble us ſo much in the faculty of imitation. Their aptneſs in handling is plainly the reſult of the ſhape and make of their fore legs, and their intellects together, as in us. Their peculiar chattering may perhaps be ſome attempt towards ſpeech,

to

to which they cannot attain, partly from the defect in the organs, partly, and that chiefly, from the narrowneſs of their memories, apprehenſions, and aſſociations; for they ſeem not to underſtand words to any conſiderable degree. Or may not their chattering be an imitation of laughter.

Parrots appear to have far leſs intellect than apes, but a more diſtinguiſhing ear, and, like other birds, a much greater command of the muſcles of the throat. Their talk ſeems to be almoſt devoid of all proper connection with ideas. However, in reſpect of ſounds, they imitate as much as children, or as apes in reſpect of other actions. And indeed the talk of children, by out-running their underſtandings in many things, very much reſembles that of parrots.

As we expreſs our inward ſentiments by words, ſo we do alſo by geſtures, and particularly by the muſcles of the face. Here, again, aſſociation and imitation diſplay themſelves. This dumb ſhew prevails more in the hotter climates, where the paſſions are more impetuous, than in theſe northern ones. It is alſo probable, that the narrowneſs and imperfection of the ancient languages made it more neceſſary and prevalent in ancient times. Deaf perſons have an extraordinary aptneſs both in learning and decyphering this, as might well be expected. The imitation of manners and characters by dumb ſhew is often more ſtriking, than any verbal deſcription of them.

SECT. VIII.

OF THE RELATION WHICH THE FOREGOING THEORY BEARS TO THE ART OF PHYSIC.

PROP. LXXVIII.

The Art of Phyſic affords many proper Teſts of the Doctrines of Vibrations and Aſſociation; and may receive conſiderable Improvement from them, if they be true.

This propoſition may appear from ſeveral hints to that purpoſe, which have been already given. But it will be more fully manifeſt, if I give a ſhort view of the *data* and *quæſita* in the art of phyſic.

Now the general problem, which comprehends the whole art, is,

Having the ſymptoms given, to find the remedy.

This problem may be ſolved in ſome caſes empirically and directly by the hiſtories of diſtempers, and of their cures. But then there are other caſes, and thoſe not a few, to which the learning and experience of the moſt able phyſicians either cannot find hiſtories

hiſtories ſufficiently ſimilar, or none where the event was ſucceſsful. Hence it is neceſſary to attempt the ſolution of the general problem rationally and indirectly, by dividing it into the two following leſs comprehenſive and conſequently more manageable problems, viz.

Firſt, *Having the ſymptoms given, to find the deviation of the body from its natural ſtate.*

Secondly, *Having this deviation given, to find the remedy.*

It is proper alſo to invert theſe two problems, and to inquire, firſt, *Having the deviation given, what the ſymptoms muſt be.*

Secondly, *Having the manner of operation of a ſucceſsful remedy given, what the deviation muſt be.*

I here uſe the words *ſymptoms*, *deviation*, and *remedy*, in the moſt general ſenſe poſſible, for the ſake of brevity.

Now it is very evident, that the doctrine of vibrations, or ſome other better doctrine, which teaches the law of action of the nervous ſyſtem, has a cloſe connection with all theſe laſt four problems. For the nerves enter every part, as well as the blood veſſels; and the brain has as great a ſhare in all the natural functions of the parts, and its diſorders, in all their diſorders, as the heart, and its diſorders, can have; and much more than any other part, beſides the heart.

Farther, If the doctrine of aſſociation be the neceſſary conſequence of the doctrine of vibrations, in any ſuch manner as I have propoſed above, *Prop.* 9. and 11. it muſt have a moſt intimate connection with the theory of nervous diſtempers, and ſome with that of others, on account of the juſt mentioned dependence of all the parts on the brain. Or, if we ſeparate theſe doctrines, ſtill, if that of aſſociation be true, of which I ſuppoſe there is no doubt, it cannot but be of great uſe for explaining thoſe diſtempers in which the mind is affected.

And it ſeems to me, that, agreeably to this, the diſtempers of the head, ſpaſmodic ones, the effects of poiſonous bites and ſtings, which, as Dr. *Mead* juſtly obſerves, are more exerted upon the nerves than on the blood, receive much light from the doctrine of vibrations, and, in return, confirm it; and that all the diſorders of the memory, fancy, and mind, do the ſame in reſpect of the doctrine of aſſociation.

I do not mean to intimate here, that the rational and indirect ſolution of the general problem, which comprehends the art of phyſic, is preferable to the empirical and direct one, where this is to be had; but only, ſince this cannot be had always, that we ought to proceed in an explicit and ſcientifical manner, rather than in a confuſed and popular one. For where practice is ſilent, phyſicians muſt and will have recourſe to ſome theory, good or bad. And if they do not acquaint themſelves with the real ſtructure and functions of the parts, with the ſenſible qualities and operations of medicines, and with the moſt probable method of explaining both the ſymptoms of diſtempers, and the operations of medicines, they muſt fancy ſomething in the place of theſe, and reaſon from ſuch falſe imaginations, or perhaps from the mere agreements,

oppoſitions, and ſecondary ideas, of words. The hiſtory of diſeaſes, and their cures, is the baſis of all; after this come anatomical examinations of the body, both in its natural and morbid ſtates; and, laſt of all, pharmacy; theſe three anſwering reſpectively to the general problem, and the two ſubordinate ones above-mentioned. And if we reaſon at all upon the functions and diſorders of the parts, and the effects of medicines upon the body, ſo important an organ as the brain muſt not be left out entirely.

It may not be amiſs to add here, that as all the natural functions tend to the welfare of the body, ſo there is a remarkable tendency in all the diſorders of the body to rectify themſelves. Theſe two tendencies, taken together, make what is called nature by phyſicians; and the ſeveral inſtances of them, with their limits, dangers, ill conſequences, and deviations in particular caſes, deſerve the higheſt attention from phyſicians, that ſo they may neither interrupt a favourable criſis, nor concur with a fatal one. *Stahl* and his followers ſuppoſe, that theſe tendencies ariſe from a rational agent preſiding over the fabric of the body, and producing effects, that are not ſubject to the laws of mechaniſm. But this is *gratis dictum*; and the plain traces of mechaniſm, which appear in ſo many inſtances, natural and morbid, are highly unfavourable to it. And all the evidences for the mechanical nature of the body or mind are ſo many encouragements to ſtudy them faithfully and diligently, ſince what is mechanical *may* both be underſtood and remedied.

CHAP.

CHAP. III.

Containing a particular APPLICATION *of the foregoing* THEORY *to the* PHÆNOMENA *of* IDEAS, *or of* UNDERSTANDING, AFFECTION, MEMORY, *and* IMAGINATION.

SECT. I.

OF WORDS, AND THE IDEAS ASSOCIATED WITH THEM.

PROP. LXXIX.

Words and Phraſes muſt excite Ideas in us by Aſſociation, and they excite Ideas in us by no other Means.

WORDS may be conſidered in four lights.

Firſt, As impreſſions made upon the ear.

Secondly, As the actions of the organs of ſpeech.

Thirdly, As impreſſions made upon the eye by characters.

Fourthly, As the actions of the hand in writing.

We learn the uſe of them in the order here ſet down. For children firſt get an imperfect knowledge of the meaning of the words of others; then learn to ſpeak themſelves; then to read; and, laſtly, to write.

Now it is evident, that in the firſt of theſe ways many ſenſible impreſſions, and internal feelings, are aſſociated with particular words and phraſes, ſo as to give theſe the power of raiſing the correſponding ideas; and that the three following ways increaſe and improve this power, with ſome additions to and variations of the ideas. The ſecond is the reverſe of the firſt, and the fourth of the third. The firſt aſcertains the ideas belonging to words and phraſes in a groſs manner, according to their uſage in common life. The ſecond fixes this, and makes it ready and accurate; having the ſame uſe here as the ſolution of the inverſe problem has in other caſes in reſpect of the direct one. The third has the ſame effect as the ſecond; and alſo extends the ideas and ſignifications of words and phraſes, by new aſſociations; and particularly by aſſociations with other words, as in definitions, deſcriptions, &c. The advancement of the arts and ſciences is chiefly carried on by the new ſignifications given to words in this third way. The fourth, by converting the reader into a writer, helps him to be expert in diſtinguiſhing, quick in recollecting, and faithful in retaining, theſe new ſignifications of words, being the inverſe of the third method, as juſt now remarked. The reader will eaſily ſee, that the action of the hand is not an eſſential in this fourth method. Compoſition by

perſons born blind has nearly the ſame effect. I mention it as being the common attendant upon compoſition, as having a conſiderable uſe deducible from aſſociation, and as making the analogy between the four methods more conſpicuous and complete.

This may ſuffice, for the preſent, to prove the firſt part of the propoſition, viz. that words and phraſes muſt excite ideas in us by aſſociation. The ſecond part, or that they excite ideas in us by no other means, may appear at the ſame time, as it may be found upon reflection and examination, that all the ideas which any word does excite are deducible from ſome of the four ſources above-mentioned, moſt commonly from the firſt or third.

It may appear alſo from the inſtances of the words of unknown languages, terms of art not yet explained, barbarous words, &c. of which we either have no ideas, or only ſuch as ſome fancied reſemblance, or prior aſſociation, ſuggeſts.

It is highly worthy of remark here, that articulate ſounds are by their variety, number, and ready uſe, particularly ſuited to ſignify and ſuggeſt, by aſſociation, both our ſimple ideas, and the complex ones formed from them, according to the twelfth propoſition.

Cor. It follows from this propoſition, that the arts of logic, and rational grammar, depend entirely on the doctrine of aſſociation. For logic, conſidered as the art of thinking or reaſoning, treats only of ſuch ideas as are annexed to words; and, as the art of diſcourſing, it teaches the proper uſe of words in a general way, as grammar does in a more minute and particular one.

PROP. LXXX.

To deſcribe the Manner in which Ideas are aſſociated with Words, beginning from Childhood.

This may be done by applying the doctrine of aſſociation, as laid down in the firſt chapter, to words conſidered in the four lights mentioned under the laſt propoſition.

Firſt, then, The aſſociation of the names of viſible objects, with the impreſſions which theſe objects make upon the eye, ſeems to take place more early than any other, and to be effected in the following manner: the name of the viſible object, the nurſe, for inſtance, is pronounced and repeated by the attendants to the child, more frequently when his eye is fixed upon the nurſe, than when upon other objects, and much more ſo than when upon any particular one. The word *nurſe* is alſo ſounded in an emphatical manner, when the child's eye is directed to the nurſe with earneſtneſs and deſire. The aſſociation therefore of the ſound *nurſe*, with the picture of the nurſe upon the *retina*, will be far ſtronger than that with any other viſible impreſſion, and thus overpower all the other accidental aſſociations, which will alſo themſelves contribute to the ſame end by oppoſing one another. And when the child has gained ſo much voluntary power over his motions, as to direct his head and eyes towards the nurſe upon hearing her name, this proceſs will go on with an accelerated velocity. And thus, at laſt, the word will excite the viſible idea readily and certainly.

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The ſame aſſociation of the picture of the nurſe in the eye with the ſound *nurſe* will, by degrees, overpower all the accidental aſſociations of this picture with other words, and be ſo firmly cemented at laſt, that the picture will excite the audible idea of the word. But this is not to our preſent purpoſe. I mention it here as taking place at the ſame time with the foregoing proceſs, and contributing to illuſtrate and confirm it. Both together afford a complete inſtance for the tenth and eleventh propoſitions, *i. e.* they ſhew, that when the impreſſions *A* and *B* are ſufficiently aſſociated, *A* impreſſed alone will excite *b*, *B* impreſſed alone will excite *a*.

Secondly, This aſſociation of words with viſible appearances, being made under many particular circumſtances, muſt affect the viſible ideas with a like particularity. Thus the nurſe's dreſs, and the ſituation of the fire in the child's nurſery, make part of the child's ideas of his nurſe and fire. But then as the nurſe often changes her dreſs, and the child often ſees a fire in a different place, and ſurrounded by different viſible objects, theſe oppoſite aſſociations muſt be leſs ſtrong, than the part which is common to them all; and conſequently we may ſuppoſe, that while his idea of that part which is common, and which we may call eſſential, continues the ſame, that of the particularities, circumſtances, and adjuncts, varies. For he cannot have any idea, but with ſome particularities in the non-eſſentials.

Thirdly, When the viſible objects impreſs other vivid ſenſations beſides thoſe of ſight, ſuch as grateful or ungrateful taſtes, ſmells, warmth or coldneſs, with ſufficient frequency, it follows from the foregoing theory, that theſe ſenſations muſt leave traces, or ideas, which will be aſſociated with the names of the objects, ſo as to depend upon them. Thus an idea, or naſcent perception, of the ſweetneſs of the nurſe's milk will riſe up in that part of the child's brain which correſponds to the nerves of taſte, upon his hearing her name. And hence the whole idea belonging to the word *nurſe* now begins to be complex, as conſiſting of a viſible idea, and an idea of taſte. And theſe two ideas will be aſſociated together, not only becauſe the word raiſes them both, but alſo becauſe the original ſenſations are. The ſtrongeſt may therefore aſſiſt in raiſing the weakeſt. Now, in common caſes, the viſible idea is ſtrongeſt, or occurs moſt readily at leaſt; but, in the preſent inſtance, it ſeems to be otherwiſe. We might proceed in like manner to ſhew the generation of ideas more and more complex, and the various ways by which their parts are cemented together, and all made to depend on the reſpective names of the viſible objects. But what has been ſaid may ſuffice to ſhew what ideas the names of viſible objects, proper and appellative, raiſe in us.

Fourthly, We muſt, however, obſerve, in reſpect of appellatives, that ſometimes the idea is the common compound reſult of all the ſenſible impreſſions received from the ſeveral objects compriſed under the general appellation; ſometimes the particular idea of ſome one of theſe, in great meaſure at leaſt, viz. when the impreſſions ariſing from ſome one are more novel, frequent, and vivid, than thoſe from the reſt.

Fifthly,

Fifthly, The words denoting ſenſible qualities, whether ſubſtantive or adjective, ſuch as *whiteneſs*, *white*, &c. get their ideas in a manner which will be eaſily underſtood from what has been already delivered. Thus the word *white*, being aſſociated with the viſible appearances of milk, linen, paper, gets a ſtable power of exciting the idea of what is common to all, and a variable one in reſpect of the particularities, circumſtances, and adjuncts. And ſo of other ſenſible qualities.

Sixthly, The names of viſible actions, as walking, ſtriking, &c. raiſe the proper viſible ideas by a like proceſs. Other ideas may likewiſe adhere in certain caſes, as in thoſe of taſting, feeling, ſpeaking, &c. Senſible perceptions, in which no viſible action is concerned, as hearing, may alſo leave ideas dependent on words. However, ſome viſible ideas generally intermix themſelves here. Theſe actions and perceptions are generally denoted by verbs, though ſometimes by ſubſtantives.

And we may now ſee in what manner ideas are aſſociated with nouns, proper and appellative, ſubſtantive and adjective, and with verbs, ſuppoſing that they denote ſenſible things only. Pronouns and particles remain to be conſidered. Now, in order to know their ideas and uſes, we muſt obſerve,

Seventhly, That as children may learn to read words not only in an elementary way, viz. by learning the letters and ſyllables of which they are compoſed, but alſo in a ſummary one, viz. by aſſociating the ſound of entire words, with their pictures, in the eye; and muſt, in ſome caſes, be taught in the laſt way, *i. e.* whereſoever the ſound of the word deviates from that of its elements; ſo both children and adults learn the ideas belonging to whole ſentences many times in a ſummary way, and not by adding together the ideas of the ſeveral words in the ſentence. And wherever words occur, which, ſeparately taken, have no proper ideas, their uſe can be learnt in no other way but this. Now pronouns and particles, and many other words, are of this kind. They anſwer, in ſome meaſure, to *x*, *y*, and *z*, or the unknown quantities in algebra, being determinable and decypherable, as one may ſay, only by means of the known words with which they are joined.

Thus *I walk* is aſſociated at different times with the ſame viſible impreſſion as *nurſe walks*, *brother walks*, &c. and therefore can ſuggeſt nothing permanently for a long time but the action of walking. However the pronoun *I*, in this and innumerable other ſhort ſentences, being always aſſociated with the perſon ſpeaking, as *thou* is with the perſon ſpoken to, and *he* with the perſon ſpoken of, the frequent recurrency of this teaches the child the uſe of the pronouns, *i. e.* teaches him what difference he is to expect in his ſenſible impreſſions according as this or that pronoun is uſed; the infinite number of inſtances, as one may ſay, making up for the infinitely ſmall quantity of information, which each, ſingly taken, conveys.

In like manner, different particles, *i. e.* adverbs, conjunctions, and prepoſitions, being uſed in ſentences, where the ſubſtantives, adjectives, and verbs, are the ſame, and the ſame particles, where theſe are different, in an endleſs recurrency, teach children

children the uſe of the particles in a groſs general way. For it may be obſerved, that children are much at a loſs for the true uſe of the pronouns and particles for ſome years, and that they often repeat the proper name of the perſon inſtead of the pronoun; which confirms the foregoing reaſoning. Some of the inferior parts or particles of ſpeech make ſcarce any alteration in the ſenſe of the ſentence, and therefore are called expletives. The ſeveral terminations of the *Greek* and *Latin* nouns and verbs are of the nature of pronouns and particles.

Eighthly, The attempts which children make to expreſs their own wants, perceptions, pains, &c. in words, and the corrections and ſuggeſtions of the attendants, are of the greateſt uſe in all the ſteps that we have hitherto conſidered, and eſpecially in the laſt, regarding the pronouns and particles.

Ninthly, Learning to read helps children much in the ſame reſpects; eſpecially as it teaches them to ſeparate ſentences into the ſeveral words which compound them; which thoſe who cannot read are ſcarce able to do, even when arrived at adult age.

Thus we may ſee, how children and others are enabled to underſtand a continued diſcourſe relating to ſenſible impreſſions only, and how the words in paſſing over the ear muſt raiſe up trains of viſible and other ideas by the power of aſſociation. Our next inquiry muſt be concerning the words that denote either intellectual things, or collections of other words.

Tenthly, The words, that relate to the ſeveral paſſions of love, hatred, hope, fear, anger, &c. being applied to the child at the times when he is under the influence of theſe paſſions, get the power of raiſing the miniatures or ideas of theſe paſſions, and alſo of the uſual aſſociated circumſtances. The application of the ſame words to others helps alſo to annex the ideas of the aſſociated circumſtances to them, and even of the paſſions themſelves, both from the infectiouſneſs of our natures, and from the power of aſſociated circumſtances to raiſe the paſſions. However, it is to be noted, that the words denoting the paſſions do not, for the moſt part, raiſe up in us any degree of the paſſions themſelves, but only the ideas of the aſſociated circumſtances. We are ſuppoſed to underſtand the continued diſcourſes into which theſe words enter ſufficiently, when we form true notions of the actions, particularly the viſible ones attending them.

Eleventhly, The names of intellectual and moral qualities and operations, ſuch as fancy, memory, wit, dulneſs, virtue, vice, conſcience, approbation, diſapprobation, &c. ſtand for a deſcription of theſe qualities and operations; and therefore, if dwelt upon, excite ſuch ideas as theſe deſcriptions in all their particular circumſtances do. But the common ſentences, which theſe words enter, paſs over the mind too quick, for the moſt part, to allow of ſuch a delay. They are acknowledged as familiar and true, and ſuggeſt certain aſſociated viſible ideas, and naſcent internal feelings, taken from the deſcriptions of theſe names, or from the words, which are uſually joined with them in diſcourſes or writings.

Twelfthly,

Twelfthly, There are many terms of art in all the branches of learning, which are defined by other words, and which therefore are only compendious ſubſtitutes for them. The ſame holds in common life in numberleſs inſtances. Thus riches, honours, pleaſures, are put for the ſeveral kinds of each. Such words ſometimes ſuggeſt the words of their definitions, ſometimes the ideas of theſe words, ſometimes a particular ſpecies comprehended under the general term, &c. But, whatever they ſuggeſt, it may be eaſily ſeen, that they derive the power of doing this from aſſociation.

Thirteenthly, There are many words uſed in abſtract ſciences, which can ſcarce be defined or deſcribed by any other words; and yet, by their grammatical form, ſeem to be excluded from the claſs of particles. Such are identity, exiſtence, &c. The uſe of theſe muſt therefore be learnt as that of the particles is. And indeed children learn their firſt imperfect notions of all the words conſidered in this and the three laſt paragraphs chiefly in this way; and come to preciſe and explicit ones only by means of books, as they advance to adult age, or by endeavouring to uſe them properly in their own deliberate compoſitions.

This is by no means a full or ſatisfactory account of the ideas which adhere to words by aſſociation. For the author perceives himſelf to be ſtill a mere novice in theſe ſpeculations; and it is difficult to explain words to the bottom by words; perhaps impoſſible. The reader will receive ſome addition of light and evidence in the courſe of this ſection; alſo in the next, in which I ſhall treat of propoſitions and aſſent. For our aſſent to propoſitions, and the influence which they have over our affections and actions, make part of the ideas that adhere to words by aſſociation; which part, however, could not properly be conſidered in this ſection.

Cor. 1. It follows from this propoſition, that words may be diſtinguiſhed into the four claſſes mentioned under the twelfth propoſition,

1. Such as have ideas only.
2. Such as have both ideas and definitions.
3. Such as have definitions only.
4. Such as have neither ideas nor definitions.

Under definition I here include deſcription, or any other way of explaining a word by other words, excepting that by a mere ſynonymous term; and I exclude from the number of ideas the viſible idea of the character of a word, and the audible one of its ſound; it being evident, that every word heard may thus excite a viſible idea, and every word ſeen an audible one. I exclude alſo all ideas that are either extremely faint, or extremely variable.

It is difficult to fix preciſe limits to theſe four claſſes, ſo as to determine accurately where each ends, and the next begins; and, if we conſider theſe things in the moſt general way, there is perhaps no word which has not both an idea and a definition, *i. e.* which is not attended by ſome one or more internal feelings occaſionally, and which may not be explained, in ſome imperfect manner at leaſt, by other words. I will

will give ſome inſtances of words which have the faireſt right to each claſs. The names of ſimple ſenſible qualities are of the firſt claſs. Thus *white*, *ſweet*, &c. excite ideas; but cannot be defined. It is to be obſerved here, that this claſs of words ſtands only for the ſtable part of the ideas reſpectively, not for the ſeveral variable particularities, circumſtances, and adjuncts, which intermix themſelves here.

The names of natural bodies, animal, vegetable, mineral, are of the ſecond claſs; for they excite aggregates of ſenſible ideas, and at the ſame time may be defined (as appears from the writings of natural hiſtorians) by an enumeration of their properties and characteriſtics. Thus likewiſe geometrical figures have both ideas and definitions. The definitions in both caſes are ſo contrived as to leave out all the variable particularities of the ideas, and to be alſo more full and preciſe, than the ideas generally are in the parts that are of a permanent nature.

Algebraic quantities, ſuch as roots, powers, ſurds, &c. belong to the third claſs, and have definitions only. The ſame may be ſaid of ſcientifical terms of art, and of moſt abſtract general terms, moral, metaphyſical, vulgar: however, mental emotions are apt to attend ſome of theſe even in paſſing ſlightly over the ear; and theſe emotions may be conſidered as ideas belonging to the terms reſpectively. Thus the very words, *gratitude*, *mercy*, *cruelty*, *treachery*, &c. ſeparately taken, affect the mind; and yet, ſince all reaſoning upon them is to be founded on their definitions, as will be ſeen hereafter, it ſeems beſt to refer them to this third claſs.

Laſtly, the particles *the*, *of*, *to*, *for*, *but*, &c. have neither definitions nor ideas.

Cor. 2. This matter may be illuſtrated by comparing language to geometry and algebra, the two general methods of expounding quantity, and inveſtigating all its varieties from previous *data*.

Words of the firſt claſs anſwer to propoſitions purely geometrical, *i. e.* to ſuch as are too ſimple to admit of algebra; of which kind we may reckon that concerning the equality of the angles at the baſis of an Iſoſceles triangle.

Words of the ſecond claſs anſwer to that part of geometry, which may be demonſtrated either ſynthetically or analytically; either ſo that the learner's imagination ſhall go along with every ſtep of the proceſs painting out each line, angle, &c. according to the method of demonſtration uſed by the ancient mathematicians; or ſo that he ſhall operate entirely by algebraic quantities and methods, and only repreſent the concluſion to his imagination, when he is arrived at it, by examining then what geometrical quantities the ultimately reſulting algebraical ones denote. The firſt method is in both caſes the moſt ſatisfactory and affecting, the laſt the moſt expeditious, and not leſs certain, where due care is taken. A blind mathematician muſt uſe words in the laſt of theſe methods, when he reaſons upon colours.

Words of the third claſs anſwer to ſuch problems concerning quadratures, and rectifications of curves, chances, equations of the higher orders, &c. as are too perplexed to be treated geometrically.

Laſtly, Words of the fourth claſs anſwer to the algebraic ſigns for addition, ſubtraction, &c. to indexes, coefficients, &c. Theſe are not algebraic quantities themſelves; but they alter the import of the letters that are; juſt as particles vary the ſenſe of the principal words of a ſentence, and yet ſignify nothing of themſelves.

Geometrical figures may be conſidered as repreſenting all the modes of extenſion in the ſame manner, as viſible ideas do viſible objects; and conſequently the names of geometrical figures anſwer to the names of theſe ideas. Now as all kinds of problems relating to quantity might be expounded by modes of extenſion, and ſolved thereby, were our faculties ſufficiently exalted, ſo it appears poſſible to repreſent moſt kinds of ideas by viſible ones, and to purſue them in this way through all their varieties and combinations. But as it ſeems beſt in the firſt caſe to confine geometry to problems, where extenſion, and motion, which implies extenſion, are concerned, uſing algebraic methods for inveſtigating all other kinds of quantity, ſo it ſeems beſt alſo to uſe viſible ideas only for viſible objects and qualities, of which they are the natural repreſentatives, and to denote all other qualities by words conſidered as arbitary ſigns. And yet the repreſentation of other quantities by geometrical ones, and of other ideas by viſible ones, is apt to make a more vivid impreſſion upon the fancy, and a more laſting one upon the memory. In ſimiles, fables, parables, allegories, viſible ideas are uſed for this reaſon to denote general and intellectual ones.

Since words may be compared to the letters uſed in algebra, language itſelf may be termed one ſpecies of algebra; and, converſely, algebra is nothing more than the language which is peculiarly fitted to explain quantity of all kinds. As the letters, which in algebra ſtand immediately for quantities, anſwer to the words which are immediate repreſentatives of ideas, and the algebraic ſigns for addition, &c. to the particles; ſo the ſingle letters, which are ſometimes uſed by algebraiſts to denote ſums or differences, powers or roots univerſal of other letters, for brevity and convenience, anſwer to ſuch words as have long definitions, to terms of art, &c. which are introduced into the ſciences for the ſake of compendiouſneſs. Now, if every thing relating to language had ſomething analogous to it in algebra, one might hope to explain the difficulties and perplexities attending the theory of language by the correſponding particulars in algebra, where every thing is clear, and acknowledged by all that have made it their ſtudy. However, we have here no independent point whereon to ſtand, ſince, if a perſon be diſpoſed to call the rules of algebra in queſtion, we have no way of demonſtrating them to him, but by uſing words, the things to be explained by algebra, for that purpoſe. If we ſuppoſe indeed the ſceptical perſon to allow only that ſimple language, which is neceſſary for demonſtrating the rules of algebra, the thing would be done; and, as I obſerved juſt now, it ſeems impoſſible to become acquainted with this, and at the ſame time to diſallow it.

Cor. 3. It will eaſily appear from the obſervations here made upon words, and the aſſociations which adhere to them, that the languages of different ages and nations muſt

muſt bear a great general reſemblance to each other, and yet have conſiderable particular differences; whence any one may be tranſlated into any other, ſo as to convey the ſame ideas in general, and yet not with perfect preciſion and exactneſs. They muſt reſemble one another, becauſe the phænomena of nature, which they are all intended to expreſs, and the uſes and exigencies of human life, to which they miniſter, have a general reſemblance. But then, as the bodily make and genius of each people, the air, ſoil, and climate, commerce, arts, ſciences, religion, &c. make conſiderable differences in different ages and nations, it is natural to expect, that the languages ſhould have proportionable differences in reſpect of each other.

Where languages have rules of etymology and ſyntax, that differ greatly, which is the caſe of the *Hebrew* compared with *Greek* or *Latin*, this will become a new ſource of difformity. For the rules of etymology and ſyntax determine the application and purport of words in many caſes. Agreeably to which we ſee, that children, while yet unacquainted with that propriety of words and phraſes, which cuſtom eſtabliſhes, often make new words and conſtructions, which, though improper according to common uſage, are yet very analogous to the tenor of the language, in which they ſpeak.

The modern languages of this weſtern part of the world anſwer better to the *Latin*, than according to their original *Gothic* plans, on this account; inaſmuch as not only great numbers of words are adopted by all of them from the *Latin*, but alſo becauſe the reading *Latin* authors, and learning the *Latin* grammar, have diſpoſed learned men and writers to mould their own languages in ſome meaſure after the *Latin*. And, converſely, each nation moulds the *Latin* after the idiom of its own language, the effect being reciprocal in all ſuch caſes.

In learning a new language the words of it are at firſt ſubſtitutes for thoſe of our native language, *i. e.* they are aſſociated, by means of theſe, with the proper objects and ideas. When this aſſociation is ſufficiently ſtrong, the middle bond is dropped, and the words of the new language become ſubſtitutes for, and ſuggeſt directly and immediately objects and ideas; alſo cluſters of other words in the ſame language.

In learning a new language it is much eaſier to tranſlate from it into the native one, than back again; juſt as young children are much better able to underſtand the expreſſions of others, than to expreſs their own conceptions. And the reaſon is the ſame in both caſes. Young children learn at firſt to go from the words of others; and thoſe who learn a new language, from the words of that language, to the things ſignified. And the reverſe of this, viz. to go from the things ſignified to the words, muſt be difficult for a time, from what is delivered concerning ſucceſſive aſſociations under the tenth and eleventh propoſitions. It is to be added here, that the nature and connections of the things ſignified often determine the import of ſentences, though their grammatical analyſis is not underſtood; and that we ſuppoſe the perſon who attempts to tranſlate from a new language is ſufficiently expert in the inverſe problem of paſſing

from the things ſignified to the correſponding words of his own language. The power of aſſociation is every where conſpicuous in theſe remarks.

Cor. 4. It follows alſo from the reaſoning of this propoſition, that perſons who ſpeak the ſame language cannot always mean the ſame things by the ſame words; but muſt miſtake each other's meaning. This confuſion and uncertainty ariſes from the different aſſociations transferred upon the ſame words by the difference in the accidents and events of our lives. It is, however, much more common in diſcourſes concerning abſtract matters, where the terms ſtand for collections of other terms, ſometimes at the pleaſure of the ſpeaker or writer, than in the common and neceſſary affairs of life. For here frequent uſe, and the conſtancy of the phænomena of nature, intended to be expreſſed by words, have rendered their ſenſe determinate and certain. However, it ſeems poſſible, and even not very difficult, for two truly candid and intelligent perſons to underſtand each other upon any ſubject.

That we may enter more particularly into the cauſes of this confuſion, and conſequently be the better enabled to prevent it, let us conſider words according to the four claſſes above-mentioned.

Now miſtakes will happen in the words of the firſt claſs, viz. ſuch as have ideas only, where the perſons have aſſociated theſe words with different impreſſions. And the method to rectify any miſtake of this kind is for each perſon to ſhew with what actual impreſſions he has aſſociated the word in queſtion. But miſtakes here are not common.

In words of the ſecond claſs, viz. ſuch as have both ideas and definitions, it often happens, that one perſon's knowledge is much more full than another's, and conſequently his idea and definition much more extenſive. This muſt cauſe a miſapprehenſion on one ſide, which yet may be eaſily rectified by recurring to the definition. It happens alſo ſometimes in words of this claſs, that a man's ideas, *i. e.* the miniatures excited in his nervous ſyſtem by the word, are not always ſuitable to his definition, *i. e.* are not the ſame with thoſe which the words of the definition would excite. If then this perſon ſhould pretend, or even deſign, to reaſon from his definition, and yet reaſon from his idea, a miſapprehenſion will ariſe in the hearer, who ſuppoſes him to reaſon from his definition merely.

In words of the third claſs, which have definitions only, and no immediate ideas, miſtakes generally ariſe through want of fixed definitions mutually acknowledged, and kept to. However, as imperfect fluctuating ideas, that have little relation to the definitions, are often apt to adhere to the words of this claſs, miſtakes muſt ariſe from this cauſe alſo.

As to the words of the fourth claſs, or thoſe which have neither ideas nor definitions, it is eaſy to aſcertain their uſe by inſerting them in ſentences, whoſe import is known and acknowledged; this being the method in which children learn to decypher them: ſo that miſtakes could not ariſe in the words of this claſs, did we uſe moderate care

and

and candour. And indeed ſince children learn the uſes of words moſt evidently without having any *data*, any fixed point at all, it is to be hoped, that philoſophers, and candid perſons, may learn at laſt to underſtand one another with facility and certainty; and get to the very bottom of the connection between words and ideas.

It ſeems practicable to make a dictionary of any language, in which the words of that language ſhall all be explained with preciſion by words of the ſame language, to perſons who have no more than a groſs knowledge of that language. Now this alſo ſhews, that with care and candour we might come to underſtand one another perfectly. Thus ſenſible qualities might be fixed by the bodies, in which they are moſt eminent and diſtinct; the names of a ſufficient number of theſe bodies being very well known. After this theſe very bodies, and all others, might be defined by their ſenſible properties; and theſe two proceſſes would help each other indefinitely. Actions might be deſcribed from animals already defined, alſo from the modes of extenſion, abſtract terms defined, and the peculiar uſe of particles aſcertained. And ſuch a dictionary would, in ſome meaſure, be a real as well as a nominal one, and extend to things themſelves. The writer of every new and difficult work may execute that part of ſuch a dictionary which belongs to his ſubject; at leaſt in the inſtances where he apprehends the reader is likely to want it.

Cor. 2. When words have acquired any conſiderable power of exciting pleaſant or painful vibrations in the nervous ſyſtem, by being often aſſociated with ſuch things as do this, they may transfer a part of theſe pleaſures and pains upon indifferent things, by being at other times often aſſociated with ſuch. This is one of the principal ſources of the ſeveral factitious pleaſures and pains of human life. Thus, to give an inſtance from childhood, the words *ſweet*, *good*, *pretty*, *fine*, &c. on the one hand, and the words, *bad*, *ugly*, *frightful*, &c. on the other, being applied by the nurſe and attendants in the young child's hearing almoſt promiſcuouſly, and without thoſe reſtrictions that are obſerved in correct ſpeaking, the one to all the pleaſures, the other to all the pains of the ſeveral ſenſes, muſt by aſſociation raiſe up general pleaſant and painful vibrations, in which no one part can be diſtinguiſhed above the reſt; and, when applied by farther aſſociations to objects of a neutral kind, they muſt transfer a general pleaſure or pain upon them.

All the words aſſociated with pleaſures muſt alſo affect each other by this promiſcuous application. And the ſame holds in reſpect of the words aſſociated with pains. However, ſince both the original and the transferred pleaſures and pains heaped upon different words are different, and in ſome caſes widely ſo, every remarkable word will have a peculiar internal feeling, or ſentiment, belonging to it; and there will be the ſame relations of affinity, diſparity, and oppoſition, between theſe internal ſentiments, *i. e.* ideas, belonging to words, as between the ſeveral *genera* and *ſpecies* of natural bodies between taſtes, ſmells, colours, &c. Many of theſe ideas, though affording conſiderable pleaſure at firſt, muſt ſink into the limits of indifference; and ſome of thoſe which

which afforded pain at firſt, into the limits of pleaſure. What is here ſaid of words, belongs to cluſters of them, as well as to ſeparate words. And the ideas of all may ſtill retain their peculiarities, by which they are diſtinguiſhed from each other, after they have fallen below the limits of pleaſure into indifference, juſt as obſcure colours, or faint taſtes, do.

It is obſervable, that the mere tranſit of words expreſſing ſtrong ideas over the ears of children affects them; and the ſame thing is true of adults, in a leſs degree. However the laſt have learnt from experience and habit to regard them chiefly, as they afford a rational expectation of pleaſure and pain. This cannot be diſcuſſed fully, till we come to conſider the nature of aſſent; but it may give ſome light and evidence to the reaſoning of this corollary, juſt to have mentioned the manner, in which we are at firſt affected by words.

Cor. 6. Since words thus collect ideas from various quarters, unite them together and transfer them both upon other words, and upon foreign objects, it is evident, that the uſe of words adds much to the number and complexneſs of our ideas, and is the principal means by which we make intellectual and moral improvements. This is verified abundantly by the obſervations that are made upon perſons born deaf, and continuing ſo. It is probable, however, that theſe perſons make uſe of ſome ſymbols to aſſiſt the memory, and fix the fancy: and they muſt have a great variety of pleaſures and pains transferred upon viſible objects from their aſſociations with one another, and with ſenſible pleaſures of all the kinds; but they are very deficient in this, upon the whole, through the want of the aſſociations of viſible objects, and ſtates of mind, &c. with words. Learning to read muſt add greatly to their mental improvement; yet ſtill their intellectual capacities cannot but remain very narrow.

Perſons blind from birth muſt proceed in a manner different from that deſcribed in this propoſition, in the firſt ideas, which they affix to words. As the viſible ones are wanting, the others, particularly the tangible and audible ones, muſt compoſe the aggregates which are annexed to words. However, as they are capable of learning and retaining as great a variety of words as others, or perhaps a greater, *cæteris paribus*, and can aſſociate with them pleaſures and pains from the four remaining ſenſes, alſo uſe them as algebraiſts do the letters that repreſent quantities, they fall little or nothing ſhort of others in intellectual accompliſhments, and may arrive even at a greater degree of ſpirituality, and abſtraction in their complex ideas.

Cor. 7. It follows from this propoſition, that, when children or others firſt learn to read, the view of the words excites ideas only by the mediation of their ſounds, with which alone their ideas have hitherto been aſſociated. And thus it is that children and illiterate perſons underſtand what they read beſt by reading aloud. By degrees, the intermediate link being left out, the written or printed characters ſuggeſt the ideas directly and inſtantaneouſly; ſo that learned men underſtand more readily by paſſing over the words with the eye only, ſince this method, by being more expeditious, brings

brings the ideas closer together. However, all men, both learned and unlearned, are peculiarly affected by words pronounced in a manner suitable to their sense and design; which is still an associated influence.

Cor. 8. As persons, before they learn to read, must have very imperfect notions of the distinction of words, and can only understand language in a gross general way, taking whole clusters of words for one undivided sound, so much less can they be supposed to have any conceptions concerning the nature or use of letters. Now all mankind must have been in this state before the invention of letters. Nay, they must have been farther removed from all conceptions of letters, than the most unlearned persons amongst us, since these have at least heard of letters, and know that words may be written and read by means of them. And this makes it difficult to trace out by what steps alphabetical writing was invented; or is even some presumption, that it is not a human invention. To which it is to be added, that the analysing complex articulate sounds into their simple component parts appears to be a problem of too difficult and perplexed a nature for the rude early ages, occupied in getting necessaries, and defending themselves from external injuries, and not aware of the great use of it, even though they had known the solution to be possible and practicable. However, I shall mention some presumptions of a contrary nature under the next proposition.

PROP. LXXXI.

To explain the Nature of Characters intended to represent Objects and Ideas immediately, and without the Intervention of Words.

Since characters made by the hand are capable of the greatest varieties, they might be fitted by proper associations to suggest objects and ideas immediately, in the same manner as articulate sounds do. And there are some instances of it in common use, which may serve to verify this, and to lead us into the nature of characters standing immediately for objects and ideas. Thus the numeral figures, and the letters in algebra, represent objects, ideas, words, and clusters of words, directly and immediately; the pronunciation of them being of no use, or necessity, in the operations to be performed by them. Thus also musical characters represent sounds and combinations of sounds, without the intervention of words, and are a much more compendious and ready representation, than any words can be.

Characters seem to have an advantage over articulate sounds in the representation of visible objects, inasmuch as they might by their resemblance, even though only a gross one, become rather natural, than mere arbitrary representatives.

They had also an advantage as representatives in general, before the invention of alphabetical writing, since persons could by this means convey their thoughts to each other at a distance.

If we ſuppoſe characters to be improved to all that variety and multiplicity, which is neceſſary for repreſenting objects, ideas, and cluſters of characters, in the ſame manner as words repreſent objects, ideas, and cluſters of words, ſtill they might be reſolved into ſimple component parts; and rendered pronunciable by affixing ſome ſimple or ſhort ſound to each of theſe ſimple component parts; juſt as articulate ſounds are painted by being firſt reſolved into their ſimple component parts, and then having each of theſe repreſented by a ſimple mark or character.

If we ſuppoſe the moſt common viſible objects to be denoted both by ſhort articulate ſounds, and by ſhort characters bearing ſome real, or fancied, imperfect reſemblance to them, it is evident, that the ſound and mark, by being both aſſociated with the viſible object, would alſo be aſſociated with one another; and conſequently that the ſound would be the name of the mark, and the mark the picture of the ſound. And this laſt circumſtance ſeems to lead to the denoting all ſounds by marks, and therefore perhaps to alphabetical writing.

At the ſame time it muſt be obſerved, that the marks would bear different relations of ſimilarity and diſſimilarity to one another from thoſe which the correſponding ſounds did.

This would happen according to whatever law the marks were made, but eſpecially if they were reſemblances of viſible objects. And this, as it ſeems, would occaſion ſome difficulty and perplexity in repreſenting ſounds by marks, or marks by ſounds.

PROP. LXXXII.

To explain the Nature of figurative Words and Phraſes, and of Analogy, from the foregoing Theory.

A Figure is a word, which, firſt repreſenting the object or idea *A*, is afterwards made to repreſent *B*, on account of the relation, which theſe bear to each other.

The principal relation, which gives riſe to figures, is that of likeneſs; and this may be either a likeneſs in ſhape, and viſible appearance, or one in application, uſe, &c. Now it is very evident from the nature of aſſociation, that objects which are like to a given one in viſible appearance, will draw to themſelves the word by which this is expreſſed. And indeed this is the foundation upon which appellatives are made to ſtand for ſo great a number of particulars. Let the word *man* be applied to the particular perſons *A*, *B*, *C*, &c. till it be ſufficiently aſſociated with them, and it will follow, that the appearance of the new particular perſon *D* will ſuggeſt the word, and be denoted by it. But here there is no figure, becauſe the word *man* is aſſociated with different particular perſons from the firſt, and that equally or nearly ſo.

In like manner, the correſponding parts of different animals, *i. e.* the eyes, mouth, breaſt, belly, legs, lungs, heart, &c. have the ſame names applied in a literal ſenſe, partly

partly from the likeneſs of ſhape, partly from that of uſe and application. And it is evident, that if we ſuppoſe a people ſo rude in language and knowledge, as to have names only for the parts of the human body, and not to have attended to the parts of the brute creatures, aſſociation would lead them to apply the ſame names to the parts of the brute creatures, as ſoon as they became acquainted with them. Now here this application would at firſt have the nature of a figure; but when by degrees any of theſe words, the eye for inſtance, became equally applied from the firſt to the eyes of men and brutes, it would ceaſe to be a figure, and become an appellative name, as juſt now remarked.

But when the original application of the word is obvious, and remains diſtinct from the ſecondary one, as when we ſay the mouth or ear of a veſſel, or the foot of a chair or table, the expreſſion is figurative.

Hence it is plain, that the various reſemblances which nature and art afford are the principal ſources of figures. However, many figures are alſo derived from other relations, ſuch as thoſe of cauſe, effect, oppoſition, derivation, generality, particularity; and language itſelf, by its reſemblances, oppoſitions, &c. becomes a new ſource of figures, diſtinct from the relations of things.

Moſt metaphors, *i. e.* figures taken from likeneſs, imply a likeneſs in more particulars than one, elſe they would not be ſufficiently definite, nor affect the imagination in a due manner. If the likeneſs extend to many particulars, the figure becomes implicitly a ſimile, fable, parable, or allegory.

Many, or moſt common figures, paſs ſo far into literal expreſſions by uſe, *i. e.* aſſociation, that we do not attend at all to their figurative nature. And thus by degrees figurative ſenſes become a foundation for ſucceſſive figures, in the ſame manner, as originally literal ſenſes.

It is evident, that if a language be narrow, and much confined to ſenſible things, it will have great occaſion for figures: theſe will naturally occur in the common intercourſes of life, and will in their turn, as they become literal expreſſions in the ſecondary ſenſes, much augment and improve the language, and aſſiſt the invention. All this is manifeſt from the growth of modern languages, in thoſe parts where they were heretofore particularly defective.

We come now to the conſideration of analogy. Now things are ſaid to be analogous to one another, in the ſtrict mathematical ſenſe of the word *analogy*, when the correſponding parts are all in the ſame ratio to each other. Thus if the ſeveral parts of the body in different perſons be ſuppoſed exactly proportional to the whole bodies, they might be ſaid to be analogous in the original mathematical ſenſe of that word. But as this reſtrained ſenſe is not applicable to things, as they really exiſt, another of a more enlarged and practical nature has been adopted, which may be thus defined. Analogy is that reſemblance, and in ſome caſes ſameneſs, of the parts, properties, functions, uſes, &c. any or all, of *A* to *B*, whereby our knowledge concerning *A*, and

the language expreſſing this knowledge, may be applied in the whole, or in part, to *B*, without any ſenſible, or, at leaſt, any important practical error. Now analogies, in this ſenſe of the word, ſome more exact and extenſive, ſome leſs ſo, preſent themſelves to us every where in natural and artificial things; and thus whole groups of figurative phraſes, which ſeem at firſt only to anſwer the purpoſes of convenience in affording names for new objects, and of pleaſing the fancy in the way to be hereafter mentioned, paſs into analogical reaſoning, and become a guide in the ſearch after truth, and an evidence for it in ſome degree. I will here ſet down ſome inſtances of analogies of various degrees and kinds.

The bodies of men, women, and children, are highly analogous to each other. This holds equally in reſpect of every other ſpecies of animals; alſo of the ſeveral correſponding parts of animals of the ſame ſpecies, as their fleſh, blood, bones, fat, &c. and their properties. Here the words applied to the ſeveral analogous things are uſed in a ſenſe equally literal in reſpect of all. And the analogy is in moſt caſes ſo cloſe, as rather to be eſteemed a coincidence, or ſameneſs.

In comparing animals of different kinds the analogy grows perpetually leſs and leſs, as we take in a greater compaſs; and conſequently our language more and more harſh, when conſidered as literal, whilſt yet it cannot well be figurative in ſome things, and literal in others; ſo that new words are generally aſſigned to thoſe parts, which do not ſufficiently reſemble the correſponding ones. Thus the fore-legs of men and fowls, as we might call them in a harſh, literal, or a highly figurative way, are termed hands and wings reſpectively. However, in ſome caſes, the ſame word is uſed, and conſidered as a figure; as when the cries of birds and beaſts are termed their language. We may alſo obſerve, that every part in every animal may, from its reſemblance in ſhape and uſe to the correſponding parts in ſeveral other animals have a juſt right to a name, which ſhall be common to it and them.

What has been ſaid of animals of the ſame and different kinds holds equally in reſpect of vegetables. Thoſe of the ſame kind have the ſame names applied to the correſponding parts in a literal ſenſe. Thoſe of different kinds have many names common to all uſed in a literal ſenſe, ſome new ones peculiar to certain kinds, and ſome that may be conſidered as ſo harſh in a literal ſenſe, that we may rather call them figurative terms.

The ſame may be ſaid of the mineral kingdom, conſidered alſo according to its *genera* and *ſpecies*.

Animals are alſo analogous to vegetables in many things, and vegetables to minerals: ſo that there ſeems to be a perpetual thread of analogy continued from the moſt perfect animal to the moſt imperfect mineral, even till we come to elementary bodies themſelves.

Suppoſe the ſeveral particulars of the three kingdoms to be repreſented by the letters of an alphabet ſufficiently large for that purpoſe. Then we are to conceive, that any two contiguous ſpecies, as *A* and *B*, *M* and *N*, are more analogous than *A* and *C*, *M* and

and *O*, which have one between them. However, ſince *A* and *B*, *M* and *N*, are not perfectly analogous, this deficiency may be ſupplied in ſome things from *C* and *O*, in others from *D* and *P*, &c. ſo that *M* can have no part, property, &c. but what ſhall have ſomething quite analogous to it in ſome ſpecies, near or remote, above it or below it, and even in ſeveral ſpecies. And in caſes where the parts, properties, &c. are not rigorouſly exact in reſemblance, there is, however, an imperfect one, which juſtifies the application of the ſame word to both; if it approach to perfection, the word may be ſaid to be uſed in a literal ſenſe; if it be very imperfect, in a figurative one. Thus when the names of parts, properties, &c. are taken from the animal kingdom, and applied to the vegetable, or *vice verſa*, they are more frequently conſidered as figurative, than when transferred from one part of the animal kingdom to another.

In like manner, there ſeems to be a gradation of analogies reſpecting the earth, moon, planets, comets, ſun, and fixed ſtars, compared with one another. Or if we deſcend to the ſeveral parts of individuals, animals, vegetables, or minerals, the ſeveral organs of ſenſation are evidently analogous to each other; alſo the glands, the muſcles, the parts of generation in the different ſexes of the ſame kind, &c. &c. without limits. For the more any one looks into the external natural world, the more analogies, general or particular, perfect or imperfect, will he find every where.

Numbers, geometrical figures, and algebraic quantities, are alſo mutually analogous without limits. And here there is the exacteſt uniformity, joined with an endleſs variety, ſo that it is always certain and evident how far the analogy holds, and where it becomes a diſparity or oppoſition on one hand, or a coincidence on the other. There is no room for figures here; but the terms muſt be diſparate, oppoſite, or the ſame, in a ſtrictly literal ſenſe reſpectively.

The ſeveral words of each particular language, the languages themſelves, the idioms, figures, &c. abound alſo with numerous analogies of various kinds and degrees.

Analogies are likewiſe introduced into artificial things, houſes, gardens, furniture, dreſs, arts, &c.

The body politic, the body natural, the world natural, the univerſe;——The human mind, the minds of brutes on one hand, and of ſuperior beings on the other, and even the infinite mind himſelf;——the appellations of father, governor, judge, king, architect, &c. referred to God;—the ages of man, the ages of the world, the ſeaſons of the year, the times of the day;—the offices, profeſſions, and trades, of different perſons, ſtateſmen, generals, divines, lawyers, phyſicians, merchants;—the terms night, ſleep, death, chaos, darkneſs, &c. alſo light, life, happineſs, &c. compared with each other reſpectively; life and death, as applied in different ſenſes to animals, vegetables, liquors, &c.—earthquakes, ſtorms, battles, tumults, fermentations of liquors, law-ſuits, games, &c. families, bodies politic leſſer and greater, their laws, natural religion, revealed religion, &c. &c. afford endleſs inſtances of analogies natural and artificial. For the mind being once initiated into the method of diſcovering analo-

gies, and expreſſing them, does by aſſociation perſevere in this method, and even force things into its ſyſtem by concealing diſparities, magnifying reſemblances, and accommodating language thereto. It is eaſy to ſee, that in the inſtances laſt alleged the terms uſed are for the moſt part literal only in one ſenſe, and figurative in all their other applications. They are literal in the ſenſe which was their primary one, and figurative in many or moſt of the reſt. Similes, fables, parables, allegories, &c. are all inſtances of natural analogies improved and ſet off by art. And they have this in common to them all, that the properties, beauties, perfections, deſires, or defects and averſions, which adhere by aſſociation to the ſimile, parable or emblem of any kind, are inſenſibly, as it were, transferred upon the thing repreſented. Hence the paſſions are moved to good or to evil, ſpeculation is turned into practice, and either ſome important truth felt and realized, or ſome error and vice gilded over and recommended.

PROP. LXXXIII.

To apply the foregoing Account of Words and Characters to the Languages and Method of Writing of the firſt Ages of the World.

HERE there is a great difficulty through the want of ſufficient *data*. I will aſſume a few of thoſe that appear to me moſt probable, and juſt ſhew the method of applying the doctrine of aſſociation to them; leaving it to learned men, as they become poſſeſſed of more and more certain *data*, to make farther advances.

I ſuppoſe then, that *Adam* had ſome language, with ſome inſtinctive knowledge concerning the uſe of it, as well as concerning divine and natural things, imparted to him by God at his creation. It ſeems indeed, that God made uſe of the viſible appearances or actions, or perhaps of the ſeveral cries of the brute creatures, as the means whereby he taught *Adam* their names. But whether this was ſo, alſo whether, if it was, any analogous method was taken in reſpect of the names of other objects, or of ideas, and internal feelings, is an inquiry, in which nothing that yet appears can afford ſatisfaction.

I ſuppoſe alſo, that the language, which *Adam* and *Eve* were poſſeſſed of in paradiſe was very narrow, and confined in great meaſure to viſible things; God himſelf condeſcending to appear in a viſible, perhaps in a human ſhape, to them, in his revelations of himſelf. It might alſo be monoſyllabic in great meaſure. They who ſuppoſe *Adam* to be capable of deep ſpeculations, and to have exceeded all his poſterity in the ſubtilty and extent of his intellectual faculties, and conſequently in the number and variety of his words, and the ideas belonging to them, have no foundation for this opinion in ſcripture; nor do they ſeem to conſider, that innocence, and pure unmixed happineſs, may exiſt without any great degrees of knowledge; or that to ſet a value upon knowledge conſidered

conſidered in itſelf, and excluſively of its tendency to carry us to God, is a moſt pernicious error, derived originally from *Adam*'s having eaten of the tree of knowledge.

After the fall we may ſuppoſe, that *Adam* and *Eve* extended their language to new objects and ideas, and eſpecially to thoſe which were attended with pain; and this they might do ſometimes by inventing new words, ſometimes by giving new ſenſes to old ones. However, their language would ſtill continue narrow, becauſe they had only one another to converſe with, and could not extend their knowledge to any great variety of things; alſo becauſe their foundation was narrow. For the growth and variations of a language ſomewhat reſemble the increaſe of money at intereſt upon intereſt.

If to theſe reaſons we add the long lives of the antediluvian patriarchs, the want of arts and ſciences in the antediluvian world, and the want of leiſure through the great labour and fatigue neceſſary to provide food, clothing, &c. we ſhall have reaſon to conjecture, that the whole antediluvian world would ſpeak the ſame language with *Adam*, and that without any great additions or alterations. After a hundred or two hundred years, aſſociation would fix the language of each perſon, ſo that he could not well make many alterations; but he muſt ſpeak the language of his forefathers till that time, becauſe thoſe to the ſixth or ſeventh generation above him were ſtill living; and conſequently he would continue to ſpeak the ſame language, *i. e.* the *Adamic*, with few variations, to the laſt. The narrowneſs of the languages of barbarous nations may add ſome light and evidence here.

If we ſuppoſe ſome kind of picture-writing to have been imparted to *Adam* by God, or to have been invented by him, or by any of his poſterity, this might receive more alterations and improvements than language, from the ſucceſſive generations of the antediluvians. For the variety of figures in viſible objects would ſuggeſt a ſufficient variety in their characters; the hand could eaſily execute this; and their permanency would both give the antediluvians diſtinct ideas of all the original characters, and all their variations, and alſo fix them in their memory. We may ſuppoſe therefore, that though their words and marks would be ſo aſſociated together (agreeably to what was before obſerved), as that the word would be the name of the correſponding mark, and the mark the picture of the word in many caſes, yet their marks would in ſome inſtances extend farther than their words; and conſequently, that on this account, as well as becauſe the marks would be ſimilar and different, where the words were not, there would be no alphabetical writing in the antediluvian world.

They might, however, hand down a hiſtory of the creation, fall, and principal events, in this picture-writing, attended with a traditional explanation, which might remain uncorrupted and invariable till the deluge. And indeed, if we ſuppoſe picture-writing to be of divine original, it will be moſt probable, that they received a divine direction to do this, and that they would not apply their picture-writing to any other purpoſe for ſome time: juſt as the *Iſraelites* afterwards ſeem to have employed alphabetical writing chiefly for recording the divine diſpenſations and interpoſitions.

After

After the flood the great change made in the face of things, and in natural bodies, with the appearance perhaps of ſome entirely new ones, would make ſome parts of the antediluvian language ſuperfluous, at the ſame time that it would be greatly defective upon the whole. Hence we may ſuppoſe, that the antediluvian language muſt receive much greater alterations and additions juſt after the flood, than at any time before. But *Noah* and his wife, having their words and ideas more firmly aſſociated together, than *Shem*, *Ham*, and *Japhet*, and their wives, on account of their ſuperior age, would be far leſs able to make the requiſite changes in their language. Something like this muſt alſo take place in reſpect of their picture-writing, if we ſuppoſe there was any ſuch thing in the antediluvian world.

Let us ſuppoſe this, and alſo with Mr. *Whiſton* and Mr. *Shuckford*, that *Noah*, his wife, and their poſtdiluvian poſterity, ſettled early in *China*, ſo as to be cut off from *Shem*, *Ham*, and *Japhet*, and their poſterity. Here then we may ſuppoſe farther, that they would alter and improve their picture-writing, or character, ſo as to ſuit it to the new face of things in the poſtdiluvian world, and to make it grow with the growth of knowledge, more than they would their language, from the greater facility of doing this: for I preſume, that the antediluvian language contained but few of the articulate ſounds which are now known, and that they could not invent more. Thus their character and language would both of them be the immediate repreſentatives of objects and ideas; only the uſe and application of the character would be much more extenſive than that of the language. After ſome time, ſome centuries, or even chiliads, ſuppoſe, both the character and language would begin to be fixed, to have fewer new marks and words added, and fewer alterations made in the old ones in any given interval of time. The words would alſo be ſo firmly aſſociated with the correſponding marks, as to be the names of them, *i. e.* to repreſent them as well as the objects or ideas, to which they were originally affixed. But then there would be many marks, to which there would be no ſuch names, taken from the names of objects and ideas, on account of the poverty of the language here ſuppoſed. They would, however, endeavour to give them ſome names; and hence a diverſity would ariſe in their language. We may conceive alſo, that as they ſeparated farther from one another in multiplying, particular clans would deviate even in the pronunciation of the monoſyllabic words of the original language, as in the ſeveral dialects of other languages; and conſequently deviate ſtill more in the compound names of the marks: but the marks, being permanent things, capable of being handed down accurately to the ſucceſſive generations, and of being conveyed to diſtant countries, would continue intelligible to all. And thus we may conceive, that the poſtdiluvian poſterity of *Noah* might all write the ſame characters, and yet ſpeak different languages; alſo that their character would be very extenſive, and always the immediate repreſentative of objects and ideas, whereas their language would be narrow, and in ſome caſes the immediate repreſentative of the character, and only denote objects and ideas by means of this. And this I take

to

to be the caſe with the people of *China*, and the neighbouring countries of *Japan*, *Tonquin*, *Siam*, &c. But I only preſume to offer conjectures, not having any knowledge of the character or languages of theſe countries.

Since the *Chineſe* marks are very numerous, and their ſimple words very few, whereas our words are very numerous, and our ſimple marks, or the letters of our alphabet, very few; alſo ſince our words are the ſole immediate repreſentatives of objects and ideas, our written and printed marks being merely artificial pictures of words; one might ſuſpect, that the *Chineſe* words are, in correſpondence to this, merely an artificial enunciation of their character. But I think this not ſo probable, as the mixed ſuppoſition mentioned in the laſt paragraph. For it cannot be ſuppoſed, that any nation ſhould be ſo far deſtitute of language, as not to have words for common objects, and internal feelings; or, having theſe, that they ſhould lay them entirely aſide, and adopt the artificial names of the marks repreſenting thoſe objects and ideas in their ſteads. But they might eaſily adopt names, ſimple or compound, at firſt aſcribed artificially to marks, whoſe objects and ideas had before this adoption no names.

That in affixing names artificially to marks a great diverſity might ariſe, appears from the great diverſity of alphabetical characters expreſſing the ſame words. Thus the *Hebrew*, *Samaritan* and *Syriac* languages, agree nearly in ſound and ſenſe, but differ entirely in characters. Thus alſo, amongſt modern languages, ſeveral are written in different characters, as *Engliſh* in the common round hand, in various law hands, and variousſh ort hands.

Let us now return to *Shem*, *Ham*, and *Japhet*, and their poſterity. They muſt be ſuppoſed to proceed in the ſame manner, in general, as *Noah*, and his immediate poſterity, till the confuſion of tongues at *Babel*; excepting that *Shem*, *Ham*, and *Japhet*, with their wives, would be more apt to alter their character and language, and ſuit them to their preſent exigencies, than *Noah* and his wife, on account of their being all young perſons; alſo that, being all as it were equal to each other they might each of them be the authors of certain diverſities in the common character and language, and eſtabliſh them in their reſpective poſterities. However, if *Noah* be ſuppoſed to have continued with them till the diviſion of the earth by God's command, and then only to have departed with his poſtdiluvian poſterity for *China*, the country aſſigned to him, whilſt *Shem*, *Ham*, and *Japhet*, with their poſterity, began to build the tower of *Babel* in oppoſition to God's command, then *Noah*, and all his ſons, &c. muſt be ſuppoſed to have ſuited their character and language to the new world in nearly the ſame manner.

The confuſion of tongues at *Babel* appears to me to be miraculous for the following reaſons.

Firſt, This appears to be the moſt natural interpretation of the text.

Secondly, Thus the confuſion of tongues will correſpond to the gift of language imparted to *Adam* at his creation, which muſt be ſuppoſed; alſo to the gift of tongues at *Pentecoſt*.

Thirdly,

Thirdly, Learned men ſeem to have ſhewn, that the diverſity of ancient languages does by no means favour the ſuppoſition of a natural derivation of them all from one original form.

Fourthly, The original plan of the *Greek* and *Latin* tongues (which I conſider as ſiſter languages derived from the ſame mother or original plan), appears to have been very uniform, yet with a conſiderable variety. Now I think this uniformity and variety could ſcarce be invented and eſtabliſhed by rude multitudes, almoſt entirely occupied in providing neceſſaries for themſelves, and much leſs as alphabetical writing ſeems to be of later date than the diverſity of languages. And in fact we do not find, that barbarous nations do by length of time improve their languages ſo as in any meaſure to approach to the perfection of the *Greek* or *Latin*, or of their common mother. It adds ſtrength to this argument, that the original plan of the *Greek* and *Latin*, *i. e.* the rules of etymology and ſyntax, as grammarians call them, is entirely different from that of the *Hebrew* and *Arabic* (whoſe original plans agree), though the firſt colonies, which came by ſea into *Greece* and *Italy*, came from *Paleſtine* and *Egypt*, *i. e.* from the neighbourhood of countries where *Hebrew* and *Arabic* were ſpoken.

Fifthly, The natural deviation of languages ſince hiſtory has been clear and certain, does by no means correſpond to a ſuppoſed natural derivation of all languages from one mother-tongue, eſpecially in ſo ſhort a time as the interval between the flood and the riſe of many different ancient languages. Let the reader here only reflect upon the great difference of the Biblical *Hebrew* from the ancienteſt *Greek* extant, and the ſmall difference of this from modern *Greek*, or of the Biblical *Hebrew* from the Rabbinical.

If now the confuſion of tongues was miraculous, we may conjecture from the agreements and diſagreements of mother-languages from each other, that it was of the following kind.

Firſt, That the original monoſyllabic words of the antediluvian language were incorporated into each new language.

Secondly, That as theſe words included only few of the articulate ſounds of which the human voice is capable, the ſeveral families were put upon making new articulations, ſome having one ſet, ſome another, imparted to them.

Thirdly, That each family had a new ſtock of words given them, conſiſting partly of old, partly of new articulations; and that this new ſtock far exceeded the old one in number and variety.

Fourthly, That a new and different etymology and ſyntax were alſo communicated to each family.

Fifthly, That there were as many new languages given as there are heads of families mentioned *Gen.* x; the confuſion of tongues, by which the diviſion of the earth was effected, not happening till *Joktan*'s ſons were old enough to be heads of families, though it had been determined and declared by God before. Thoſe families, however, which were derived from the ſame ſtock, or had contiguous countries aſſigned to them, might be inſpired with languages, that had a proportionable affinity.

Whatever

Whatever may become of theſe particular conjectures, I think it highly probable, that the new languages far exceeded the old common one in the number and variety of words; and that the confuſion of tongues was by this means a beneficial gift and bleſſing to mankind, as all God's other chaſtiſements uſe to be.

We may alſo ſee reaſons to make us judge, that a diverſity of languages is ſuited to the other circumſtances of mankind. For this muſt prevent the infection of vice from ſpreading with ſuch rapidity, as it would otherwiſe have done, had mankind lived together in one large body, and had a free communication with each other by means of the ſame language.

Diverſity of languages does alſo both help the invention, and correct falſe judgments. For we think in words, as appears by the foregoing theory, and invent chiefly by means of their analogies; at the ſame time that a ſervile adherence to thoſe of any one language, or the putting words for things, would lead us into many errors. Now diverſity of languages does both enlarge the field of invention, and by oppoſing analogy to analogy preſerve us from the prejudices derived from mere verbal agreements. Let me add here, that the abſtract terms of logicians, metaphyſicians, and ſchool-men, which may be conſidered as a diſtinct language, have ſpiritualized men's underſtandings, and taught them to uſe words in reaſoning, as algebraiſts do ſymbols.

Different languages do likewiſe improve one another, and help one another to grow in ſome proportion to the advancement in the knowledge of things.

Let us now examine the probable conſequences of ſuppoſing different languages, and ſuch as were far more copious than the old one, to be given at once miraculouſly.

Firſt, then, The character, which ſuited the old language very imperfectly, would be ſtill leſs ſuited to the new one.

Secondly, The new language might be more copious, and better adjuſted to expreſs objects and ideas, than the character. And this I think can ſcarce be doubted, if we ſuppoſe the new languages given miraculouſly.

Thirdly, The agreement between many of the marks of the character, and the words of the old language, may be ſuppoſed likely to put ſome perſons upon denoting the words of the new language by marks. But whether this would neceſſarily lead to alphabetical writing, is very doubtful. I think not. The firſt attempts at leaſt would not be alphabetical writing.

Fourthly, Perſons of different families, who could not underſtand one another's language, might yet correſpond by the character. However, one may gueſs from the circumſtances of things in ancient times, that this would ſeldom take place in fact.

Fifthly, This and the convenience of correſponding with perſons of the ſame family at a diſtance, alſo the deſire of preſerving memorials of remarkable events and tranſactions, might make them continue the uſe of the character, and improve it, conſidered as a method of conveying ideas, diſtinct from that of language. And the character thus ſeparated from the language might give riſe to hieroglyphical writing in all its varieties.

Sixthly, The patriarchs after the flood in the line of *Shem* might convey in ſucceſſion the hiſtory of the creation, fall, deluge, calling of *Abraham*, &c. either in the original picture-writing improved, or in the mixed character, which, according to the third of theſe conſequences, denoted in ſome imperfect groſs way the words of the new language. And ſome of the difficulties of the book of *Geneſis* may be owing to its conſiſting of patriarchal records of one of theſe kinds, tranſlated by *Moſes* into the *Hebrew* of his own times, and then written alphabetically.

I do not think it *neceſſary* to have recourſe to any ſuch hypotheſis as this, in order to vindicate the truth and authority of the book of *Geneſis*. The length of life, even after the flood, to the time of *Moſes*, appears ſufficient for the preſervation of ſuch important traditional hiſtories uncorrupted in the religious line of *Shem*, by natural means. Or God might interpoſe miraculouſly, as in ſo many other inſtances in patriarchal times.

If it be objected, that we have not the leaſt intimation of writing of any kind in *Geneſis*, I anſwer, that this is a difficulty. However, one cannot draw any certain concluſions from an omiſſion. The original of writing is not likely to be one of the firſt things, which would be committed to writing. And if it was uſed only for the conveyance of important facts to the ſucceeding generations, we have no reaſon to expect the incidental mention of it. It was probably ſo tedious and difficult a thing to expreſs themſelves accurately in it, and verbal meſſages and contracts ſo eaſy and natural in thoſe ſimple ages, when the veracity of the meſſenger or contractor was not ſuſpected, as that writing was never uſed after the confuſion of tongues, when language became copious, unleſs in affairs of great conſequence.

Picture-writing is alluded to in the ſecond commandment, and muſt have been in uſe for ſome time before, ſince a ſyſtem of idolatry had been founded upon it. And this may incline one to think, that it had been chiefly employed in ſacred affairs, and therefore perhaps communicated originally to *Adam* by God. However, if we ſuppoſe, that it did not take place till after the flood, this will not totally vitiate the foregoing conjectures. The main purport of them may ſtand with due alterations and allowances. But it would be tedious to ſtate all the varieties in things of ſo uncertain a nature.

I come now to the art of alphabetical writing. This I conjecture to have been communicated miraculouſly by God to *Moſes* at *Sinai*, for the following reaſons, which, however, I do not judge to be deciſive ones.

Firſt, then, God is ſaid to have written with his own finger upon the tables of ſtone. And I think it would be harſh to ſuppoſe this done in conformity to, and, as one may ſay, imitation of, any mere imperfect human invention.

Secondly, The *Iſraelites* are the only people in the whole world that have preſerved any regular account of their own original. This is eaſily accounted for upon ſuppoſition, that alphabetical writing was firſt given to them in perfection; and afterwards, ſuppoſe in the time of *Eli*, borrowed by other nations, and accommodated in an imperfect manner to their languages. But if we ſuppoſe any other nation, the *Egyptians*

or

or *Arabians* for inſtance, to have invented writing before the time of *Moſes*, it will be ſomewhat difficult to aſſign a reaſon, why other perſons ſhould not have borrowed this invention as well as *Moſes*, and, like him, have given ſome account of their own nation, and their anceſtors; and more difficult to aſſign a reaſon why the people, who invented alphabetical writing, ſhould not do this.

As to the *Egyptians* in particular, their continuing to uſe hieroglyphical writing, and excelling in it, ſhews, that they could not have invented alphabetical; for this, if we ſuppoſe it invented ſo early as before the time of *Moſes*, would have aboliſhed that, juſt as the uſe of the ten cyphers has all the other imperfect methods of notation of numbers. Nor does it ſeem very likely, that hieroglyphical writing ſhould lead to alphabetical, but rather from it, ſince hieroglyphical characters are the immediate repreſentatives of objects and ideas, and the mediate repreſentatives not of letters, or ſimple articulate ſounds, but of words, and even of cluſters of words. It ſeems probable alſo, that the *Egyptians* would even be backward in receiving alphabetical writing from the *Iſraelites* at the time that the *Philiſtines* or *Phœnicians* did; as being then greatly advanced in the uſe of their own hieroglyphical writing, and prejudiced in its favour. And thus we may ſolve that very difficult queſtion, why the *Egyptians*, who ſeem to have erected a kingdom early (however, I judge *Nimrod*'s to have been the firſt by the manner in which *Moſes* has mentioned it), and to have brought it to conſiderable perfection before *Joſeph*'s time, and to very great perfection afterwards, chiefly by his means, ſhould yet have left no hiſtory of their affairs, not even of the great empire under *Seſac* or *Seſoſtris*, and his ſucceſſors. For they had no public calamities ſufficient in any meaſure to deſtroy all their records, till the time of *Cambyſes*; and the deſolation under him being leſs in degree, ſhorter in duration, in a kingdom of greater extent, and two generations later in time, than that of the *Jewiſh* ſtate under *Nebuchadnezzar*, which yet did not deſtroy the *Jewiſh* records, could not have totally deſtroyed the *Egytian* records had they been more early, and ſuperior to the *Jews*, in the uſe of alphabetical writing. Even the *Greeks*, who had no alphabetical writing till ſix hundred years after the time of *Moſes*, have given a better account of their affairs, than the *Egyptians*. It ought, however, to be remarked in this place, that if we ſuppoſe the *Jewiſh* hiſtory to have been recorded by the divine appointment and direction, which is highly probable, this will leſſen the force of the preſent argument, but not quite deſtroy it.

Thirdly, The late reception of writing amongſt the *Greeks*, is both an argument, that it did not exiſt in any other neighbouring nation before the time of *Moſes*, and alſo is conſiſtent with its being miraculouſly communicated to *him*, to be made uſe of for ſacred purpoſes, and for the preſervation of the hiſtory of the world, and true religion, amongſt God's peculiar people the *Iſraelites*. I here ſuppoſe, that the art of writing was not known to the *Greeks*, till the time of *Cadmus*; and that he came into *Greece*, agreeably to Sir *Iſaac Newton*'s opinion, about the middle of *David*'s reign. And indeed, unleſs the principal points of his chronology be admitted, it does not appear to

me, that any *rationale* can be given of ancient times, the inventions that roſe up in them, the eſtabliſhment and duration of kingdoms, their mutual intercourſes, &c.

For, Firſt, If alphabetical writing was known upon the continent of *Aſia* and *Africa* ſix hundred years before *Cadmus*, how could it be kept from the *Greeks* till his arrival amongſt them, and then accommodated to the *Greek* tongue only very imperfectly? For the *Greeks* received but ſixteen letters from him. The *Greek* tongue came itſelf perhaps from *Egypt*, in ſome meaſure; and they who brought the language two generations before *Cadmus*, would have brought an exact method of writing it alphabetically, had they been poſſeſſed of any ſuch. For it is not probable, that *Inachus*, and the colonies of *Egyptians* that came with him, and after him, ſhould change their language entirely for that of the poor wandering *Cimmerians*, whom they found in *Greece*, ſince we ſee in fact, that the colonies of *Europeans* do ſometimes teach the barbarous natives, where they go, an *European* language; but never change it for theirs.

Secondly, If alphabetical writing was given to *Moſes* miraculouſly, it is eaſy to be conceived, that it ſhould not arrive at *Greece* ſooner than the time of *Cadmus*. For the *Jews* were a ſeparate people, their prieſts kept the writings of *Moſes* in the ark, *i. e.* the only alphabetical writings in the world; and muſt be ſome time before they could be ready and expert either in reading or writing: in their attempts to copy, it is probable they would make ſome miſtakes, ſo as to fall ſhort of the purity and perfection of the art, as communicated by God; the neighbouring nations feared and hated the *Iſraelites*, their religion, and their God; they had probably a picture-writing, or perhaps ſome imperfect method of denoting words, agreeably to what has been remarked above, which anſwered all purpoſes that ſeemed neceſſary to them; and thus the art of alphabetical writing might not tranſpire to any of the neighbouring nations till the time of *Eli*, when the ark, with the writings of *Moſes* in it, was taken by the *Philiſtines*. For ſince the writings of *Moſes* were not in the ark, when it was put into the temple by *Solomon*, it may be, that the *Philiſtines* kept them, and learnt from them the art of writing alphabetically, being now ſufficiently prepared for it by ſuch notions concerning it, as had tranſpired to them previouſly in their former intercourſes with the *Iſraelites*. And thus the *Phœnicians*, or *Philiſtines*, will have appeared the inventors of letters to the *Greeks*; and *Cadmus* may well be ſuppoſed to have been able to accommodate the *Phœnician* method of writing, in an imperfect manner, to the *Greek* language, about two generations after the taking of the ark. Thus alſo, when *Samuel* put the writings of *Moſes* together, as they had been copied by the prieſts, or others, in the order in which they now ſtand in the Pentateuch, there would be ſome deviations from the original method of writing communicated to *Moſes* by God; and theſe, with ſuch as happened in after-times, particularly upon the return from the *Babyloniſh* captivity (when it is ſuppoſed by ſome, that even the original letters were changed), may have made the ancient method of writing the *Hebrew*, as the *Jews* practiſe it in their Bibles for the ſynagogues without points, ſo imperfect as not to appear to be of divine original.

For

For the ſame reaſons, the corruptions of the *Hebrew* language, or the language given to *Heber* or *Peleg*, at the confuſion of tongues, before *Moſes*'s time, may incline us to think the *Hebrew* of the Pentateuch not ſufficiently regular for a divine communication. Much is alſo to be aſcribed to our own ignorance in both theſe caſes. However, there is a wonderful ſimplicity and uniformity ſtill left, both in the Biblical *Hebrew*, and in the manner of writing it without points; ſo great, as to appear to me ſuperior to the invention of rude ancient times.

Fourthly, The order of the *Greek* and *Latin* alphabets, by being taken from that of the *Hebrew*, as we have it in the alphabetical pſalms, bears teſtimony to the great antiquity of the *Hebrew* alphabet. It is to be obſerved here, that both the *Greek* and *Latin* alphabets coincide with the *Hebrew* alphabet, as much as with each other, or more; and that there is no other ancient alphabet remaining to be a competitor to the *Hebrew*.

Fifthly, The reſolution of the complex articulate ſounds of ancient languages into ſimple elements or letters, and then recompoſing theſe complex ſounds in writing them down alphabetically, ſeems to me, as obſerved above, too difficult a problem for ancient times; eſpecially as they neither could ſee the uſe of it, nor conceive the practicability. It would have appeared to them a taſk of an infinite extent; they would never conceive, that ſo ſmall a number of elements would be ſufficient, even ſuppoſing they could firſt hit upon the deſign. It confirms this, that no barbarous nation has ever invented alphabetical writing for themſelves. They continue ignorant of it till taught. However, let it be obſerved, on the other hand, that as the ancient languages were ſimple and narrow, the difficulty of analyſing their complex ſounds would be the leſs on that account.

Sixthly, Since the method of making and erecting the tabernacle was communicated by God to *Moſes*, *Bazaleel*, and *Aholiab*, in a ſupernatural manner, we may more eaſily ſuppoſe the art of writing alphabetically to be a divine gift. But then it is ſome objection to this, that *Moſes* has not mentioned it as a divine gift, at leaſt not expreſsly.

Seventhly, The time of *Moſes* appears to be a ſuitable one for ſuch a gift, as human life was then, perhaps, juſt brought down to the preſent degree of ſhortneſs. Till *Moſes*'s time, the length of life had preſerved the ſacred traditions uncorrupted, either with or without the helps above-mentioned, at leaſt in the line of *Abraham*; but then tradition began to be mixed with fables, and to lead to idolatry.

Eighthly, Alphabetical writing, by being introduced among the *Iſraelites* in the wilderneſs, would aboliſh hieroglyphical, and conſequently cut off one ſource of idolatry. It would likewiſe make them ſuperior to the *Egyptians*, their enemies, in the art of writing; who, perhaps, prided themſelves much upon account of their perfection in hieroglyphical writing, as they might alſo in their river, the wiſdom of their policy, the comparative greatneſs of their kingdom, their magical arts, religious ceremonies, &c. For this would tend to the glory of the God of the *Iſraelites*, and the eſtabliſhment of the true religion amongſt them.

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It may be objected here, that alphabetical writing was in uſe before the giving of the law at *Sinai*, ſince *Moſes* was directed before this to write an account of the battle with *Amalek* in a book; alſo to write the names of the children of *Iſrael* upon the high prieſt's breaſt-plate, like the engravings of a ſignet. I anſwer, that both theſe may refer to a picture-writing, or to ſome improvement of it, whereby entire words were denoted, without being reſolved into their ſimple ſounds. The firſt might alſo be a prophetic intimation to *Moſes*, however not underſtood by him when it was given, that he ſhould be ſoon enabled to write in a much more complete manner than he, or his enemies the *Egyptians*, could at preſent.

The *Edomites* ſeem alſo to have had ſome kind of writing early, from the account which we have of their dukes in *Geneſis*. But this might be only picture or verbal writing, explained to *Samuel* by ſome *Edomite*, at the time when he put together the writings of *Moſes*: or they might learn writing from the *Iſraelites*, ſooner than any other nation, as being nearly related in blood, and contiguous to them in ſituation.

The ſimplicity and uniformity of the *Arabic* tongue would alſo incline one to think that the inhabitants of *Arabia* had alphabetical writing early, this having a great tendency to preſerve a fixed ſtandard in a language. But the *Iſhmaelites*, or *Midianites*, who were nearly related to the *Iſraelites*, or the *Kenites*, who lived amongſt them, might learn it from them, perhaps even during their abode in the wilderneſs. We may obſerve alſo, that the *Arabic* tongue was not only fixed, but perhaps rendered more regular, ſoon after the time of *Mahomet*, by means of the *Alcoran*, and of the grammars that were made for this language ſome time afterwards; and that, before *Mahomet*'s time the *Arabians* had little communication with their neighbours, and therefore would preſerve their language more pure and ſimple.

The changes which have happened to languages, and to the methods of writing them ſince the invention of letters, and which are treated of with great copiouſneſs in the writings of grammarians and critics, afford innumerable atteſtations to the doctrine of aſſociation, and may, converſely, be much illuſtrated by it. But the full detail of this muſt be left to thoſe, who are well ſkilled in the ſeveral ancient and modern languages.

PROP. LXXXIV.

To explain the general Nature of a philoſophical Language, and hint ſome Methods, in which it might be conſtructed, upon the foregoing Principles.

If we ſuppoſe mankind poſſeſſed of ſuch a language, as that they could at pleaſure denote all their conceptions adequately, *i. e.* without any deficiency, ſuperfluity, or equivocation; if, moreover, this language depended upon a few principles aſſumed, not arbitrarily, but becauſe they were the ſhorteſt and beſt poſſible, and grew on from the ſame principles indefinitely, ſo as to correſpond to every advancement in the know-

ledge

ledge of things, this language might be termed a philoſophical one, and would as much exceed any of the preſent languages, as a paradiſiacal ſtate does the mixture of happineſs and miſery, which has been our portion ever ſince the fall. And it is no improbable ſuppoſition, that the language given by God to *Adam* and *Eve*, before the fall, was of this kind; and, though it might be narrow, anſwered all their exigencies perfectly well.

Now there are ſeveral methods, in which it does not ſeem impoſſible for mankind in future ages to accompliſh ſo great a deſign.

Thus, Firſt, They may examine all the poſſible ſimple articulations of which their organs are capable, with all the combinations, or complex articulate ſounds, that reſult from them, and the relations which theſe bear one to another, and aſſign to each reſpectively ſuch ſimple and complex ideas, and ſuch variations of the laſt, as a deep inſight into the nature of things, objects, ideas, the powers of the human mind, &c. ſhall demand by a natural claim, ſo as to make every expreſſion the ſhorteſt and beſt poſſible. And though this, in our preſent ſtate of ignorance, cannot but ſeem an impracticable project, yet the ſame ignorance ſhould teach us, that we can form no notions at all of the great increaſe of knowledge, which may come in future ages, and which ſeems promiſed to come in the latter happy times predicted by the prophecies. However, the great, and to former times inconceivable, advancement of knowledge, which has been made in the two laſt centuries, may help a little to qualify our prejudices.

Secondly, If all the ſimple articulate ſounds, with all the radical words, which are found in the preſent languages, were appropriated to objects and ideas agreeably to the preſent ſenſes of words, and their fitneſs to repreſent objects and ideas, ſo as to make all conſiſtent with itſelf; if, farther, the beſt rules of etymology and ſyntax were ſelected from the preſent languages, and applied to the radical words here ſpoken of, ſo as to render them capable of expreſſing all the variations in objects and ideas, as far as poſſible, *i. e.* ſo as to grow proportionably to the growth of knowledge, this might alſo be termed a philoſophical language; and, though more imperfect and narrow than the laſt, yet ſeems more poſſible to be brought to execution and practice.

Thirdly, If ſuch ſimple articulations as are now wanting in the *Hebrew* alphabet were added to it, and its radical words, compoſed of all the combinations of twos and threes completed, proper ſimple ſenſes being aſſigned to them, from other languages ſuppoſe, and particularly from the *Arabic*, *Chaldee*, *Syriac*, and *Samaritan*, as in *Caſtellus*'s Lexicon, and other books of a like kind; if, farther, ſuch new rules of etymology and ſyntax were added to thoſe which take place at preſent in the Biblical *Hebrew*, as this increaſe of the radicals, and application of the language to the whole aggregate of objects and ideas requires; we ſhould have a much more ſimple, preciſe and extenſive language, than any now in being. It would alſo be eaſy to be underſtood by the *Jews* in all quarters of the world. For moſt of them have ſome knowledge of the Biblical *Hebrew*,

and

and many underſtand the Rabbinical, which ſeems to be formed upon a plan not very unlike that here propoſed, though without any expreſs deſign; and to which, therefore a due regard ought to be had by any one, who ſhould attempt to execute this plan. Many eaſtern nations, and the *Mahometans* every where, would alſo be expert in learning this language, from the relation and reſemblance which it would bear to languages already known by them; and it would be eaſier to be learnt by perfect novices than any other, on account of its greater ſimplicity and regularity. A dictionary might be made for it in itſelf; the Biblical *Hebrew*, where its ſenſe is determinate and known, being the baſis, or thing given.

In the mean time, where the writer endeavours to expreſs himſelf with plainneſs, ſincerity, and preciſion, being firſt duly qualified by the knowledge of his ſubject, and the reader pays a due regard to him, as his teacher, for the then preſent time, by uſing ſufficient induſtry and candour, the ill effects of the confuſion of tongues become evaneſcent in reſpect of them. But it would be happy to take away all occaſion of miſtake from the bulk of mankind, and to give them an opportunity of learning important truths with more eaſe and certainty, and in a ſhorter time, than they can at preſent.

It may not be amiſs to add here, that Mr. *Byrom*'s method of ſhort-hand affords an accurate and elegant inſtance of the poſſibility of proceeding in ſuch matters upon ſimple and philoſophical principles; his ſhort-hand being a real and adequate repreſentation of the ſounds of the *Engliſh* tongue, as far as is neceſſary for determining the ſenſe, and that in the ſhorteſt manner poſſible. If we were poſſeſſed of a philoſophical language, it ought to be denoted by this character, *mutatis mutandis*.

PROP. LXXXV.

To illuſtrate and confirm the general Doctrine of Aſſociation by the particular Aſſociations, that take Place in reſpect of Language.

This has been done, in great meaſure, already, in the corollaries to the twelfth propoſition. I will here inſert ſome obſervations of a like kind, which would have interrupted the reader too much in that place, but may properly follow the account of language given in this ſection.

Let *a*, *b*, *c*, *d*, &c. the ſeveral letters of an alphabet, ſuppoſed to be ſufficiently extenſive for the purpoſe, repreſent reſpectively the ſeveral ſimple ſenſible pleaſures and pains, to which a child becomes ſubject upon its firſt entrance into the world. Then will the various combinations of theſe letters repreſent the various combinations of pleaſures and pains, formed by the events and incidents of human life; and, if we ſuppoſe them to be alſo the words of a language, this language will be an emblem or adumbration of our paſſage through the preſent life; the ſeveral particulars in this being repreſented by analogous ones in that.

Thus

Thus the reiterated impreſſions of the ſimple ſenſible pleaſures and pains made upon the child, ſo as to leave their miniatures, or ideas, are denoted by his learning the alphabet; and his various aſſociations of theſe ideas, and of the pleaſures and pains themſelves, by his putting letters and ſyllables together, in order to make words: and when aſſociation has ſo far cemented the component parts of any aggregate of ideas, pleaſures and pains, together, as that they appear one indiviſible idea, pleaſure or pain, the child muſt be ſuppoſed by an analogous aſſociation to have learnt to read without ſpelling.

As the child's words become more and more polyſyllabic by compoſition and decompoſition, till at length whole cluſters run together into phraſes and ſentences, all whoſe parts occur at once, as it were, to the memory, ſo his pleaſures and pains become more and more complex by the combining of combinations; and in many caſes numerous combinations concur to form one apparently ſimple pleaſure.

The ſeveral relations of words, as derived from the ſame root, as having the ſame prepoſitions and terminations, &c. repreſent correſponding relations in the compound ideas, pleaſures and pains.

When the complex pleaſures and pains, formed from miniatures of the ſenſible ones, become the means of gaining other and greater pleaſures, viz. by fading from frequent repetition, and ſo becoming mere ideas, or by any other method, we muſt ſuppoſe, that our preſent knowledge in language is uſed as a means of attaining farther knowledge in it.

As the ſight and ſound of words, impreſſed upon us on common occaſions, do not at all ſuggeſt the original of theſe words from ſimple letters, this being a light in which grammarians and linguiſts alone conſider words, ſo the complex pleaſures and pains may paſs over men's minds, and be felt daily, and yet not be conſidered by them as mere combinations, unleſs they be peculiarly attentive and inquiſitive in this reſpect.

This compariſon may ſerve as a method of aſſiſting the reader's conceptions, in reſpect of the manner in which combinations of miniatures are formed. It is alſo a conſiderable evidence in favour of the general doctrine of aſſociation, ſince language is not only a type of theſe aſſociated combinations, but one part of the thing typified. Was human life perfect, our happineſs in it would be properly repreſented by that accurate knowledge of things which a truly philoſophical language would give us. And if we ſuppoſe a number of perſons thus making a progreſs in pure unmixed happineſs, and capable both of expreſſing their own feelings, and of underſtanding thoſe of others, by means of a perfect and adequate language, they might be like new ſenſes and powers of perception to each other, and both give to and receive from each other happineſs indefinitely. But as human life is, in fact, a mixture of happineſs and miſery, ſo all our languages muſt, from the difference of our aſſociations, convey falſehood as well as truth, as above noted. And yet, ſince our imperfect languages improve, purify, and correct themſelves perpetually by themſelves, and by other means, ſo that we may

hope at laſt to obtain a language, which ſhall be an adequate repreſentation of ideas, and a pure channel of conveyance for truth alone, analogy ſeems to ſuggeſt, that the mixture of pleaſures and pains, which we now experience, will gradually tend to a collection of pure pleaſures only, and that aſſociation may be the means of effecting this, as remarked in the ninth corollary of the fourteenth propoſition.

SCHOLIUM.

Muſical ſounds afford, like articulate ones, various inſtances of the power of aſſociation. It ought to be remarked here alſo, that the concords formed from the twelve ſemitones in the octave, are more in number than the diſcords; and that the harſhneſs of theſe laſt paſſes by degrees into the limits of pleaſure, partly from frequent repetition, partly from their aſſociations with concords.

The doctrine of aſſociation may likewiſe be illuſtrated by that of colours. Thus, let the ſeven primary colours, with their ſhades, repreſent the original ſenſible pleaſures; then will the various aſſociated pleaſures of human life, ſuppoſing that we enjoyed a ſtate of unmixed happineſs, be repreſented by the compound vivid colours, which natural bodies, of regular makes, and ſtrong powers of reflection, exhibit to the eye. White, which is compounded of all the colours reflected copiouſly, and which yet, as far as the eye can diſcern, bears no reſemblance to any of them, would repreſent a ſtate of great mental happineſs, ultimately deduced from all the ſenſible pleaſures, and in which notwithſtanding, the perſon himſelf diſtinguiſhes no traces of any of theſe. And, agreeably to this, light, brightneſs, and whiteneſs, are often put for perfection, purity, and happineſs, as obſcurity, blackneſs, and darkneſs, are for imperfection and miſery. Beſides white, there are other compound colours, which bear little or no reſemblance to any of the primary ones, as well as many in which ſome primary colour is evidently predominant. Theſe repreſent the ſeveral kinds and degrees of inferior compound pleaſures, ſome of which are, according to common eſtimation, quite foreign to the ſenſes, whilſt others are manifeſtly tinged with pleaſant ſenſations, and their miniatures.

If the moderate agitations which light cauſes in bodies, when it is by them reflected back upon, or tranſmitted to other bodies, be ſuppoſed to correſpond to pleaſant vibrations in the nervous ſyſtem; and the greater agitations, which it excites in thoſe that abſorb it, to the violent vibrations in which pain conſiſts; then the colours of natural bodies, ſome of which incline to light, and ſome to darkneſs, and that with all the poſſible varieties and mixtures of the primary colours, may be conſidered as the language by which they expreſs that mixture of pleaſures and pains in human life, to which their agitations are ſuppoſed to correſpond. And here again we may obſerve, that though there are ſome natural bodies, which abſorb and ſtifle within themſelves almoſt all the light which they receive, and which accordingly are dark, black, and unpleaſant to the beholders, yet the greateſt part of natural bodies either reflect lively colours,

colours, or reflect ſome, and tranſmit others, or tranſmit all the colours freely. And this type is alſo, in part, the thing typified, inaſmuch as agreeable and diſagreeable colours make part of the original pleaſures and pains of human life.

Compound taſtes may likewiſe illuſtrate aſſociation; as above noted under the twelfth propoſition: for where the number of ingredients is very great, as in Venice treacle, no one can be taſted diſtinctly; whence the compound appears to bear no relation to its component parts. It is to be obſerved farther, that ingredients which are ſeparately diſagreeable, often enter compounds, whoſe taſtes are highly agreeable. Now in theſe caſes either the oppoſite taſtes muſt coaleſce into one, which pleaſes from the prepollence of agreeable taſtes upon the whole, as ſoon as the aſſociation is cemented ſufficiently, or elſe the diſagreeable taſtes muſt, by frequent repetition, fall within the limits of pleaſure at laſt; which ſeems rather to be the truth.

The ſimilarity of the three inſtances of this ſcholium ariſes from the analogy of our ſenſes to each other, and to our frame in general; which is the ſum total of all our ſenſes. And, converſely, they confirm this analogy.

SECT. II.

OF PROPOSITIONS, AND THE NATURE OF ASSENT.

PROP. LXXXVI.

To explain the Nature of Aſſent and Diſſent, and to ſhew from what Cauſes they ariſe.

It appears from the whole tenor of the laſt ſection, that aſſent and diſſent, whatever their preciſe and particular nature may be, muſt come under the notion of ideas, being only thoſe very complex internal feelings, which adhere by aſſociation to ſuch cluſters of words as are called *propoſitions* in general, or affirmations and negations in particular. The ſame thing is remarked in the tenth corollary to the twelfth propoſition.

But in order to penetrate farther into this difficult and important point, I will diſtinguiſh aſſent (and by conſequence its oppoſite, deſcent) into two kinds, rational and practical; and define each of theſe.

Rational aſſent then to any propoſition may be defined a readineſs to affirm it to be true, proceeding from a cloſe aſſociation of the ideas ſuggeſted by the propoſition, with the idea, or internal feeling, belonging to the word truth; or of the terms of the propoſition with the word truth. Rational diſſent is the oppoſite to this. This aſſent might

be called verbal; but as every perſon ſuppoſes himſelf always to have ſufficient reaſon for ſuch readineſs to affirm or deny, I rather chooſe to call it rational.

Practical aſſent is a readineſs to act in ſuch manner as the frequent vivid recurrency of the rational aſſent diſpoſes us to act; and practical diſſent the contrary.

Practical aſſent is therefore the natural and neceſſary conſequence of rational, when ſufficiently impreſſed. There are, however, two cautions to be ſubjoined here, viz. Firſt, That ſome propoſitions, mathematical ones for inſtance, admit only of a rational aſſent, the practical not being applied to them in common caſes. Secondly, That the practical aſſent is ſometimes generated, and arrives at a high degree of ſtrength, without any previous rational aſſent, and by methods that have little or no connection with it. Yet ſtill it is, in general, much influenced by it, and, converſely, exerts a great influence upon it. All this will appear more clearly when we come to the inſtances.

Let us next inquire into the cauſes of rational and practical aſſent, beginning with that given to mathematical concluſions.

Now the cauſe that a perſon affirms the truth of the propoſition, *twice two is four*, is the entire coincidence of the viſible or tangible idea of twice two with that of four, as impreſſed upon the mind by various objects. We ſee every where, that twice two and four are only different names for the ſame impreſſion. And it is mere aſſociation which appropriates the word truth, its definition, or its internal feeling, to this coincidence.

Where the numbers are ſo large, that we are not able to form any diſtinct viſible ideas of them, as when we ſay, that 12 times 12 is equal to 144; a coincidence of the words ariſing from ſome method of reckoning up 12 times 12, ſo as to conclude with 144, and reſembling the coincidence of words which attends the juſt-mentioned coincidence of ideas in the ſimpler numerical propoſitions, is the foundation of our rational aſſent. For we often do, and might always verify the ſimpleſt numerical propoſitions by reckoning up the numbers. The operations of addition, ſubtraction, multiplication, diviſion, and extraction of roots, with all the moſt complex ones relating to algebraic quantities, conſidered as the exponents of numbers, are no more than methods of producing this coincidence of words, founded upon and riſing above one another. And it is mere aſſociation again, which appropriates the word truth to the coincidence of the words, or ſymbols, that denote the numbers.

It is to be remarked, however, that this coincidence of words is, by thoſe who look deeper into things, ſuppoſed to be a certain argument, that the viſible ideas of the numbers under conſideration, as of 12 times 12, and 144, would coincide, as much as the viſible ideas of twice two and four, were they as clear and diſtinct. And thus the real and abſolute truth is ſaid by ſuch perſons to be as great in complex numerical propoſitions, as in the ſimpleſt. All this agrees with what Mr. *Locke* has obſerved concerning numbers, viz. that their names are neceſſary in order to our obtaining diſtinct ideas of them; for by diſtinct ideas he muſt be underſtood to mean proper methods

methods of diſtinguiſhing them from one another, ſo as to reaſon juſtly upon them. He cannot mean diſtinct viſible ideas.

In geometry there is a like coincidence of lines, angles, ſpaces, and ſolid contents, in order to prove them equal in ſimple caſes. Afterwards, in complex caſes, we ſubſtitute the terms whereby equal things are denoted for each other, alſo the coincidence of the terms, for that of the viſible ideas, except in the new ſtep advanced in the propoſition; and thus get a new equality, denoted by a new coincidence of terms. This reſembles the addition of unity to any number, in order to make the next, as of 1 to 20, in order to make 21. We have no diſtinct viſible idea, either of 20 or 21; but we have of the difference between them, by fancying to ourſelves a confuſed heap of things ſuppoſed or called 20 in number; and then farther fancying 1 to be added to it. By a like proceſs in geometry we arrive at the demonſtration of the moſt complex propoſitions.

The properties of numbers are applied to geometry in many caſes, as when we demonſtrate a line or ſpace to be half or double of any other, or in any other rational proportion to it.

And as in arithmetic words ſtand for indiſtinct ideas, in order to help us to reaſon upon them as accurately as if they were diſtinct; alſo cyphers for words, and letters for cyphers, both for the ſame purpoſe; ſo letters are put for geometrical quantities alſo, and the agreements of the firſt for thoſe of the laſt. And thus we ſee the foundation upon which the whole doctrine of quantity is built; for all quantity is expounded either by number or extenſion, and their common and ſole exponent is algebra. The coincidence of ideas is the foundation of the rational aſſent in ſimple caſes; and that of ideas and terms together, or of terms alone, in complex ones. This is upon ſuppoſition that the quantities under conſideration are to be proved equal. But, if they are to be proved unequal, the want of coincidence anſwers the ſame purpoſe. If they are in any numeral ratio, this is only the introduction of a new coincidence. Thus, if, inſtead of proving A to be equal to B, we are to prove it equal to half B, the two parts of B muſt coincide with each other, either in idea or terms, and A with one.

And thus it appears, that the uſe of words is neceſſary for geometrical and algebraical reaſonings, as well as for arithmetical.

We may ſee alſo, that aſſociation prevails in every part of the proceſſes hitherto deſcribed.

But theſe are not the only cauſes of giving rational aſſent to mathematical propoſitions, as this is defined above. The memory of having once examined and aſſented to each ſtep of a demonſtration, the authority of an approved writer, &c. are ſufficient to gain our aſſent, though we underſtand no more than the import of the propoſition; nay, even though we do not proceed ſo far as this. Now this is mere aſſociation again; this

memory,

memory, authority, &c. being, in innumerable inſtances, aſſociated with the before-mentioned coincidence of ideas and terms.

But here a new circumſtance ariſes. For memory and authority are ſometimes found to miſlead; and this oppoſite coincidence of terms puts the mind into a ſtate of doubt, ſo that ſometimes truth may recur, and unite itſelf with the propoſition under conſideration, ſometimes falſehood, according as the memory, authority, &c. in all their peculiar circumſtances, have been aſſociated with truth or falſehood. However, the foundation of aſſent is ſtill the ſame. I here deſcribe the fact only. And yet, ſince this fact muſt always follow from the fixed immutable laws of our frame, the obligation to aſſent (whatever be meant by this phraſe) muſt coincide with the fact.

And thus a mathematical propoſition, with the rational aſſent or diſſent ariſing in the mind, as ſoon as it is preſented to it, is nothing more than a group of ideas, united by aſſociation, *i. e.* than a very complex idea, as was affirmed above of propoſitions in general. And this idea is not merely the ſum of the ideas belonging to the terms of the propoſition, but alſo includes the ideas, or internal feelings, whatever they be, which belong to equality, coincidence, truth, and, in ſome caſes, thoſe of utility, importance, &c.

For mathematical propoſitions are, in ſome caſes, attend with a practical aſſent, in the proper ſenſe of theſe words; as when a perſon takes this or that method of executing a projected deſign, in conſequence of ſome mathematical propoſition aſſented to from his own examination, or on the authority of others. Now, that which produces the train of voluntary actions, here denoting the practical aſſent, is the frequent recurrency of ideas of utility and importance. Theſe operate according to the method laid down in the twentieth propoſition, *i. e.* by aſſociation; and though the rational aſſent be a previous requiſite, yet the degree of the practical aſſent is proportionable to the vividneſs of theſe ideas; and in moſt caſes they ſtrengthen the rational aſſent by a reflex operation.

Propoſitions concerning natural bodies are of two kinds, vulgar and ſcientifical. Of the firſt kind are, *that milk is white, gold yellow, that a dog barks*, &c. Theſe are evidently nothing but forming the preſent complex idea belonging to material objects into a propoſition, or adding ſome of its common aſſociates, ſo as to make it more complex. There is ſcarce room for diſſent in ſuch propoſitions, they being all taken from common appearances. Or if any doubt ſhould ariſe, the matter muſt be conſidered ſcientifically. The aſſent given to theſe propoſitions ariſes from the aſſociations of the terms, as well as of the ideas denoted by them.

In ſcientifical propoſitions concerning natural bodies a definition is made, as of gold from its properties, ſuppoſe its colour, and ſpecific gravity, and another property or power joined to them, as a conſtant or common aſſociate. Thus gold is ſaid to be ductile, fixed, or ſoluble in *aqua regia*. Now to perſons, who have made the proper experiments a ſufficient number of times, theſe words ſuggeſt the ideas which occur in thoſe experiments, and, converſely, are ſuggeſted by them, in the ſame manner as the

vulgar

vulgar propoſitions above-mentioned ſuggeſt and are ſuggeſted by common appearances. But then, if they be ſcientifical perſons, their readineſs to affirm, that gold is ſoluble in *aqua regia* univerſally, ariſes alſo from the experiments of others, and from their own and other's obſervations on the conſtancy and tenor of nature. They know, that the colour, and ſpecific gravity, or almoſt any two or three remarkable qualities of any natural body, infer the reſt, being never found without them. This is a general truth; and as theſe general terms are obſerved to coincide, in fact, in a great variety of inſtances, ſo they coincide at once in the imagination, when applied to gold, or any other natural body, in particular. The coincidence of general terms is alſo obſerved to infer that of the particular caſes in many inſtances, beſides thoſe of natural bodies; and this unites the ſubject and predicate of the propoſition, *gold is ſoluble in aqua regia*, farther in thoſe who penetrate ſtill deeper into abſtract ſpeculations. And hence we may ſee, as before, Firſt, That terms or words are abſolutely neceſſary to the art of reaſoning: Secondly, That our aſſent is here alſo, in every ſtep of the proceſs, deducible from aſſociation.

The propoſitions formed concerning natural bodies are often attended with a high degree of practical aſſent, ariſing chiefly from ſome ſuppoſed utility and importance, and which is no ways proportionable to the foregoing, or other ſuch like allowed cauſes of rational aſſent. And in ſome caſes the practical aſſent takes place before the rational. But then, after ſome time, the rational aſſent is generated and cemented moſt firmly by the prevalence of the practical. This proceſs is particularly obſervable in the regards paid to medicines, *i. e.* in the rational and practical aſſent to the propoſitions concerning their virtues.

It is to be obſerved, that children, novices, unlearned perſons, &c. give, in many caſes, a practical aſſent upon a ſingle inſtance; and that this ariſes from the firſt and ſimpleſt of the aſſociations here conſidered. The influence of the practical aſſent over the rational ariſes plainly from their being joined together in ſo many caſes. The vividneſs of the ideas ariſing from the ſuppoſed utility, importance, &c. does alſo unite the ſubject and predicate ſooner and cloſer, agreeably to what has been obſerved in the general account of aſſociation.

The evidences for paſt facts are a man's own memory, and the authority of others. Theſe are the uſual aſſociates of true paſt facts, under proper reſtrictions, and therefore beget the readineſs to affirm a paſt fact to be true, *i. e.* the rational aſſent. The integrity and knowledge of the witneſſes, being the principal reſtriction, or requiſite, in the accounts of paſt facts, become principal aſſociates to the aſſent to them; and the contrary qualities to diſſent.

If it be aſked, how a narration of an event, ſuppoſed to be certainly true, ſuppoſed doubtful, or ſuppoſed entirely fictitious, differs in its effect upon the mind, in the three circumſtances here alleged, the words being the ſame in each, I anſwer, firſt, in having the terms *true*, *doubtful*, and *fictitious*, with a variety of uſual aſſociates to theſe, and the

the correſponding internal feelings of reſpect, anxiety, diſlike, &c. connected with them reſpectively; whence the whole effects, exerted by each upon the mind, will differ conſiderably from one another. Secondly, If the event be of an intereſting nature, as a great advantage accruing, the death of a near friend, the affecting related ideas will recur oftener, and, by ſo recurring agitate the mind more, in proportion to the ſuppoſed truth of the event. And it confirms this, that the frequent recurrency of an intereſting event, ſuppoſed doubtful, or even fictitious, does, by degrees, make it appear like a real one, as in reveries, reading romances, ſeeing plays, &c. This affection of mind may be called the practical aſſent to paſt facts; and it frequently draws after it the rational, as in the other inſtances above alleged.

The evidence for future facts is of the ſame kind with that for the propoſitions concerning natural bodies, being like it, taken from induction and analogy. This is the cauſe of the rational aſſent. The practical depends upon the recurrency of the ideas and the degree of agitation produced by them in the mind. Hence reflection makes the practical aſſent grow for a long time after the rational is ariſen to its height; or if the practical ariſes without the rational, in any conſiderable degree, which is often the caſe, it will generate the rational. Thus the ſanguine are apt to believe and aſſert what they hope, and the timorous what they fear.

There are many ſpeculative, abſtracted propoſitions in logic, metaphyſics, ethics, controverſial divinity, &c. the evidence for which is the coincidence or analogy of the abſtract terms, in certain particular applications of them, or as conſidered in their grammatical relations. This cauſes the rational aſſent. As to the practical aſſent or diſſent, it ariſes from the ideas of importance, reverence, piety, duty, ambition, jealouſy, envy, ſelf-intereſt, &c. which intermix themſelves in theſe ſubjects, and, by doing ſo, in ſome caſes add great ſtrength to the rational aſſent; in others, deſtroy it, and convert it into its oppoſite.

And thus it appears, that rational aſſent has different cauſes in propoſitions of different kinds, and practical likewiſe; that the cauſes of rational are alſo different from thoſe of practical; that there is however, a great affinity, and general reſemblance, in all the cauſes; that rational and practical aſſent exert a perpetual reciprocal effect upon one another; and conſequently, that the ideas belonging to aſſent and diſſent, and their equivalents and relatives, are highly complex ones, unleſs in the caſes of very ſimple propoſitions, ſuch as mathematical ones. For, beſides the coincidence of ideas and terms, they include, in other caſes, ideas of utility, importance, reſpect, diſreſpect, ridicule, religious affections, hope, fear, &c. and bear ſome groſs general proportion to the vividneſs of theſe ideas.

Cor. 1. When a perſon ſays *video meliora proboque, deteriora ſequor*; it ſhews that the rational and practical aſſent are at variance, that they have oppoſite cauſes, and that neither of theſe has yet deſtroyed the other.

Cor. 2. The rational and practical faith in religious matters are excellent means of begetting each other.

Cor.

Cor. 3. Vicious men, *i. e.* all perſons who want practical faith, muſt be prejudiced againſt the hiſtorical and other rational evidences in favour of revealed religion.

Cor. 4. It is impoſſible any perſon ſhould be ſo ſceptical, as not to have the complex ideas denoted by aſſent and diſſent aſſociated with a great variety of propoſitions, in the ſame manner, as in other perſons; juſt as he muſt have the ſame ideas in general affixed to the words of his native language, as other men have. A pretended ſceptic is therefore no more than a perſon who varies from the common uſage in his application of a certain ſet of words, viz. truth, certainty, aſſent, diſſent, &c.

Cor. 5. As there is a foundation for unity amongſt mankind in the uſe and application of words, ſo there is for a unity in the aſſent, or complex ideas belonging to propoſitions; and a philoſophical language, or any other method of bringing about the firſt unity, would much conduce to this. A careful examination of things, of the world natural, the human mind, the ſcriptures, would conduce much alſo. But candour ſimplicity, and an humble ſenſe of our own ignorance, which may be called a religious or chriſtian ſcepticiſm, is the principal requiſite, and that without which this part of the confuſion at *Babel* can never be remedied. When religion has equally and fully abſorbed different perſons, ſo that God is, in reſpect of them, *all in all*, as far as the preſent condition of mortality will permit, their practical aſſent muſt be the ſame; and therefore there rational cannot differ long or widely.

The ideas and internal feelings which ariſe in the mind, from words and propoſitions, may be compared to, and illuſtrated by, thoſe which the appearances of different perſons excite. Suppoſe two perſons, *A* and *B*, to go together into a crowd, and there each of them to ſee a variety of perſons whom he knew in different degrees, as well as many utter ſtrangers. *A* would not have the ſame ideas, and aſſociations raiſed in him from viewing the ſeveral faces, dreſſes, &c. of the perſons in the crowd, as *B*, partly from his having a different knowledge of, and acquaintance with them; partly from different prediſpoſitions to approve and diſapprove. But let *A* and *B* become equally acquainted with them, and acquire, by education and aſſociation, the ſame prediſpoſitions of mind, and then they will at laſt make the ſame judgment of each of the perſons whom they ſee.

Cor. 6. Religious controverſies concerning abſtract propoſitions ariſe generally from the different degrees of reſpect paid to terms and phraſes, which conduce little or nothing to the generation of practical faith, or of love to God, and truſt in him through Chriſt.

PROP. LXXXVII.

To deduce Rules for the Aſcertainment of Truth, and Advancement of Knowledge, from the mathematical Methods of conſidering Quantity.

THIS is done in the doctrine of chances, with reſpect to the events there conſidered. And though we ſeldom have ſuch preciſe *data*, in mixed ſciences as are there aſſumed, yet there are two remarks of very general uſe and application, deducible from the doctrine of chances.

Thus, Firſt, If the evidences brought for any propoſition, fact, &c. be dependent on each other, ſo that the firſt is required to ſupport the ſecond, the ſecond to ſupport the third, &c. *i. e.* if a failure of any one of the evidences renders all the reſt of no value, the ſeparate probability of each evidence muſt be very great, in order to make the propoſition credible; and this holds ſo much the more, as the dependent evidences are more numerous. For inſtance, if the value of each evidence be $\frac{1}{a}$, and the number of evidences be n, then will the reſulting probability be $\frac{1}{a^n}$. I here ſuppoſe abſolute certainty to be denoted by 1; and conſequently, that a can never be leſs than 1. Now it is evident, that $\frac{1}{a^n}$ decreaſes with every increaſe both of a and n.

Secondly, If the evidences brought for any propoſition, fact, &c. be independent on each other, *i. e.* if they be not neceſſary to ſupport each other, but concur, and can, each of them, when eſtabliſhed upon its own proper evidences, be applied directly to eſtabliſh the propoſition, fact, &c. in queſtion, the deficiency in the probability of each muſt be very great, in order to render the propoſition perceptibly doubtful; and this holds ſo much the more, as the evidences are more numerous. For inſtance, if the evidences be all equal, and the common deficiency in each be $\frac{1}{a}$, if alſo the number of evidences be n as before, the deficiency of the reſulting probability will be no more than $\frac{1}{a^n}$, which is practically nothing, where a and n are conſiderable. Thus if a and n be each equal to 10, $\frac{1}{a^n}$ will be $\frac{1}{10,000,000,000}$, or only 1 in ten thouſand millions; a deficiency from certainty, which is utterly imperceptible to the human mind.

It is indeed evident, without having recourſe to the doctrine of chances, that the dependency of evidences makes the reſulting probability weak, their independency ſtrong. Thus a report paſſing from one original author through a variety of ſucceſſive hands loſes much of its credibility, and one atteſted by a variety of original witneſſes gains, in both caſes, according to the number of ſucceſſive reporters, and original witneſſes, though by no means proportionably thereto. This is the common judgment of mankind, verified by obſervation and experience. But the mathematical method

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of conſidering theſe things is much more preciſe and ſatisfactory, and differs from the common one, juſt as the judgment made of the degrees of heat by the thermometer does from that made by the hand.

We may thus alſo ſee in a ſhorter and ſimpler way, that the reſulting probability may be ſufficiently ſtrong in dependent evidences, and of little value in independent ones, according as the ſeparate probability of each evidence is greater or leſs. Thus the principal facts of ancient hiſtory are not leſs probable practically now, than ten or fifteen centuries ago, nor leſs ſo then, than in the times immediately ſucceeding; becauſe the diminution of evidence in each century is imperceptible. For, if $\frac{1}{a}$ be equal to 1, $\frac{1}{a^n}$ will be equal to 1 alſo; and if the deficiency of $\frac{1}{a}$ from 1 be extremely ſmall, that of $\frac{1}{a^n}$ will be extremely ſmall alſo, unleſs n be extremely great. And for the ſame reaſon a large number of weak arguments proves little; for $\frac{1}{a}$, the deficiency of each argument, being extremely great, $\frac{1}{a^n}$, the reſulting deficiency of independent evidences, will be extremely great alſo.

It appears likewiſe, that the inequality of the ſeparate evidences does not much affect this reaſoning. In like manner, if the number of evidences, dependent or independent, be great, we may make great conceſſions as to the ſeparate values of each. Again, a ſtrong evidence in dependent ones can add nothing, but muſt weaken a little; and, after a point is well ſettled by a number of independent ones, all that come afterwards are uſeleſs, becauſe they can do no more than remove the imperceptible remaining deficiency, &c. And it will be of great uſe to purſue theſe, and ſuch like deductions, both mathematically, and by applying them to proper inſtances ſelected from the ſciences, and from common life, in order to remove certain prejudices, which the uſe of general terms, and ways of ſpeaking, with the various aſſociations adhering to them, is apt to introduce and fix upon the mind. It cannot but aſſiſt us in the art of reaſoning, thus to take to pieces, recompoſe, and aſcertain our evidences.

If it be aſked, upon what authority abſolute certainty is repreſented by unity, and the ſeveral degrees of probability by fractions leſs than unity, in the doctrine of chances? Alſo, upon what authority the reaſoning uſed in that doctrine is transferred to other ſubjects, and made general, as here propoſed? I anſwer, that no perſon who weighs theſe matters carefully, can avoid giving his aſſent; and that this precludes all objections. No ſceptic would, in fact, be ſo abſurd as to lay 2 to 1, where the doctrine of chances determines the probability to be equal on each ſide; and therefore we may be ſure, that he gives a practical aſſent at leaſt to the doctrine of chances.

Mr. *de Moivre* has ſhewn, that where the cauſes of the happening of an event bear a fixed ratio to thoſe of its failure, the happenings muſt bear nearly the ſame ratio to the failures, if the number of trials be ſufficient; and that the laſt ratio approaches to the firſt indefinitely, as the number of trials increaſes. This may be conſidered as an

elegant method of accounting for that order and proportion, which we every where ſee in the phænomena of nature. The determinate ſhapes, ſizes, and mutual actions of the conſtituent particles of matter, fix the ratios between the cauſes for the happenings, and the failures; and therefore it is highly probable, and even neceſſary, as one may ſay, that the happenings and failures ſhould perpetually recur in the ſame ratio to each other nearly, while the circumſtances are the ſame. When the circumſtances are altered, then new cauſes take place; and conſequently there muſt be a new, but fixed ratio, between the happenings and the failures. Let the firſt circumſtances be called *A*, the new ones *B*. If now the ſuppoſition be made ſo general, as equally to take in both *A* and *B*, the ratio of the happenings and failures will not be ſuch as either *A* or *B* required. But ſtill it will tend to a preciſeneſs, juſt as they did, ſince the ſum of the cauſes of the happenings muſt bear a fixed ratio to the ſum of the cauſes of the failures.

An ingenious friend has communicated to me a ſolution of the inverſe problem, in which he has ſhewn what the expectation is, when an event has happened *p* times, and failed *q* times, that the original ratio of the cauſes for the happening or failing of an event ſhould deviate in any given degree from that of *p* to *q*. And it appears from this ſolution, that where the number of trials is very great, the deviation muſt be inconſiderable: which ſhews that we may hope to determine the proportions, and, by degrees, the whole nature, of unknown cauſes, by a ſufficient obſervation of their effects.

The inferences here drawn from theſe two problems are evident to attentive perſons, in a groſs general way, from common methods of reaſoning.

Let us, in the next place, conſider the *Newtonian* differential method, and compare it with that of arguing from experiments and obſervations, by induction and analogy. This differential method teaches, having a certain number of the ordinates of any unknown curve given with the points of the abſciſs on which they ſtand, to find out ſuch a general law for this curve, *i. e.* ſuch an equation expreſſing the relation of an ordinate and abſciſs in all magnitudes of the abſciſs, as will ſuit the ordinates and points of the abſciſs given, in the unknown curve under conſideration. Now here we may ſuppoſe the given ordinates ſtanding upon given points to be analogous to effects, or the reſults of various experiments in given circumſtances, the abſciſs analogous to all poſſible circumſtances, and the equation afforded by the differential method to that law of action, which, being ſuppoſed to take place in the given circumſtances, produces the given effects. And as the uſe of the differential method is to find the lengths of ordinates not given, ſtanding upon points of the abſciſs that are given, by means of the equation, ſo the uſe of attempts to make general concluſions by induction and analogy, from particular effects or phænomena, is to enable us to predict other phænomena in different given circumſtances, by applying the general law or concluſion to theſe circumſtances.

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This parallel is the more pertinent and inſtructive, inaſmuch as the mathematical concluſion drawn by the differential method, though formed in a way that is ſtrictly juſt, and ſo as to have the greateſt poſſible probability in its favour, is, however liable to the ſame uncertainties, both in kind and degree, as the general maxims of natural philoſophy drawn from natural hiſtory, experiments, &c.

If many ordinates be given; if the diſtances of the points of the abſciſs, on which they ſtand, be equal and ſmall; if the ordinate required lie amongſt them, or near them; and if there be reaſon to think, that the curve itſelf is formed according to ſome ſimple, though unknown law; then may we conclude, that the new ordinate, determined by the equation, does not vary far from the truth. And if the reſulting equation be ſimple, and always the ſame, from whatever given ordinates it be extracted, there is the greateſt reaſon to think this to be the real original law or equation of the curve; and conſequently that all its points and properties may be determined with perfect exactneſs by means of it: whereas, if the given ordinates be few, their diſtances great or unequal, the ordinate required conſiderably diſtant from many or moſt of them, the unknown curve be a line drawn at hazard, and the reſulting equation very different where different ordinates are given, though their number be the ſame, there will be little probability of determining the new ordinate with exactneſs; however, ſtill the differential method affords us the greateſt probability which the *data* permit in ſuch caſes.

In like manner, if the experiments or obſervations be many, their circumſtances nearly related to each other, and in a regular ſeries, the circumſtances of the effect to be inveſtigated nearly related to them; alſo, if the real cauſe may be ſuppoſed to produce theſe effects, by the varieties of ſome ſimple law, the method of induction and analogy will carry great probability with it. And if the general concluſion or law be ſimple, and always the ſame, from whatever phænomena it be deduced, ſuch as the three laws of nature, the doctrines of gravitation, and of the different refrangibility of light; or, to go ſtill higher, by taking a mathematical inſtance, the law for finding the coefficients of the integral powers of a binomial, deduced from mere trials in various powers; there can ſcarce remain any doubt, but that we are in poſſeſſion of the true law inquired after, ſo as to be able to predict with certainty, in all caſes where we are maſters of the method of computation, or applying it; and have no reaſon to ſuſpect, that other unknown laws interfere. But, if the given phænomena be few, their circumſtances very different from each other, and from thoſe of the effect to be predicted; if there be reaſon to ſuppoſe, that many cauſes concur in the producing theſe phænomena, ſo that the law of their production muſt be very complex; if a new hypotheſis be required to account for every new combination of theſe phænomena; or, at leaſt, one that differs conſiderably from itſelf; the beſt hypotheſis which we can form, *i. e.* the hypotheſis which is moſt conformable to all the phænomena, will amount to no more than an uncertain conjecture; and yet ſtill it ought to be preferred to all others, as being the beſt that we can form.

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That inſtantaneous and neceſſary coaleſcence of ideas, which makes intuitive evidence, may be conſidered as the higheſt kind of induction, and as amounting to a perfect coincidence of the effect concluded with thoſe from which it is concluded. This takes place only in mathematics. Thus we infer, that 2 and 2 make 4, only from prior inſtances of having actually perceived this, and from the neceſſary coincidence of all theſe inſtances with all other poſſible ones of 2 and 2. Mathematical demonſtrations are made up of a number of theſe, as was obſerved above.

Where the inſtances from whence the induction is made are alike, as far as we know, to that under conſideration, at leaſt in all things that affect the preſent inquiry, it affords the higheſt probability, and may be termed induction, in the proper ſenſe of the word. Thus we infer, that the bread before us is nutritive and wholeſome, becauſe its ſmell, taſte, ingredients, manner of compoſition, &c. are the ſame as thoſe of other bread, which has often before been experieneed to be ſo.

But, if the inſtance under conſideration be in ſome reſpects like the foregoing ones, in others not, this kind of proof is generally termed one taken from analogy. Thus, if we argue from the uſe and action of the ſtomach in one animal to thoſe in another, ſuppoſed to be unknown, there will be a probable hazard of being miſtaken, proportional in general to the known difference of the two animals, as well as a probable evidence for the truth of part, at leaſt, of what is advanced, proportional to the general reſemblance of the two animals. But if, upon examination, the ſtomach, way of feeding, &c. of the ſecond animal ſhould be found, to ſenſe, the ſame as in the firſt, the analogy might be conſidered as an induction properly ſo called, at leaſt as approaching to it; for preciſe limits cannot be fixed here. If the ſecond animal be of the ſame ſpecies, alſo of the ſame age, ſex, &c. with the firſt, the induction becomes perpetually of a higher and a higher order, approaching more and more to the coincidence, which obtains in mathematical evidences, and yet never being able entirely to arrive at it. But then the difference, being only an infiniteſimal fraction, as it were, becomes nothing to all practical purpoſes whatſoever. And if a man conſiders farther, that it would be hard to find a demonſtration, that he does not miſtake the plaineſt truths; this leſſens the difference theoretically alſo.

It is often in our power to obtain an analogy where we cannot have an induction; in which caſe reaſoning from analogy ought to be admitted; however, with all that uncertainty which properly belongs to it, conſidered as more or leſs diſtant from induction, as built upon more or fewer dependent or independent evidences, &c. analogy may alſo in all caſes, be made uſe of as a guide to the invention. But coincidence in mathematical matters, and induction in others, wherever they can be had, muſt be ſought for as the only certain teſts of truth. However, induction ſeems to be a very ſufficient evidence in ſome mathematical points, affording at leaſt as much evidence there as in natural philoſophy; and may be ſafely relied on in perplexed caſes, ſuch as complex ſerieſes, till ſatisfactory demonſtrations can be had.

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The analogous natures of all the things about us, are a great aſſiſtance in decyphering their properties, powers, laws, &c. inaſmuch as what is minute or obſcure in one may be explained and illuſtrated by the analogous particular in another, where it is large and clear. And thus all things become comments on each other in an endleſs reciprocation.

When there are various arguments for the ſame thing taken from induction or analogy, they may all be conſidered as ſupporting one another in the ſame manner as independent evidences. Thus, if it could be ſhewed, that the human underſtanding is entirely dependent on aſſociation (as is remarked in this and the laſt ſection), the many analogies and connections between the underſtanding and affections, as theſe terms are commonly underſtood and contradiſtinguiſhed by writers, would make it very probable, that aſſociation precides in the ſame manner in the generation of the affections; and *vice verſa*. And the more analogies, and mutual connections, between the underſtanding and affections, were produced, ſo many more independent or concurrent evidences would there be for this prevalence of aſſociation in one, admitting it in the other. But, if now it be ſhewn farther, that the underſtanding and affections are not really diſtinct things, but only different names, which we give to the ſame kind of motions in the nervous ſyſtem, on account of a difference in degree, and other differences which it would be tedious here to enumerate, but which make no difference in reſpect of the power of aſſociation, then all the arguments from analogy are transformed into one of induction; which, however, is ſtronger than the united force of them all. For now it may be ſhewed, that aſſociation muſt prevail in each motion in the brain, by which affection is expounded, from a large induction of particulars, in which it prevails in the generation of ideas, or of the motions by which they are expounded, and which we ſuppoſe to be proved to be of the ſame kind with thoſe that expound the affections. Thus alſo inductions may be taken from the ſmell and taſte of bread, to prove it wholeſome; which would both be transformed into one ſimple argument ſtronger than both, could we ſee the internal conſtitution of the ſmall parts of the bread, from whence its ſmell, and taſte, and wholeſomeneſs, are all derived. Thus, again, all the arguments of induction for the manner of extracting the ſquare root in numbers vaniſh into the ſingle demonſtrative proof, as ſoon as this is produced. And the great buſineſs in all branches of knowledge is thus to reduce, unite, and ſimplify our evidences; ſo as that the one reſulting proof, by being of a higher order, ſhall be more than equal in force to all the concurrent ones of the inferior orders.

Having now conſidered in what manner the doctrine of chances, and the *Newtonian* differential method, may ſerve to ſhew in general the value of dependent and independent or concurrent evidences, and the probability of general concluſions formed by induction and analogy; let us next inquire by what means we are to form theſe general concluſions, and diſcover their evidences. Now the different methods of doing this

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may be ſaid to reſemble reſpectively the rule of falſe in common arithmetic; the algebraic methods of bringing the unknown quantity into an equation, under a form capable of all the algebraic operations, addition, ſubtraction, &c. the algebraic methods of finding the roots of equations of the higher orders by approximation; and the art of decyphering: all which four methods bear alſo a conſiderable reſemblance to each other. I will conſider them in order, and endeavour to ſhew how analogous methods may be introduced into the ſciences in general, to advantage.

Firſt, then, As, according to the rule of falſe, the arithmetician ſuppoſes a certain number to be that which is ſought for; treats it as if it was that; and finding the deficiency or overplus in the concluſion, rectifies the error of his firſt poſition by a proportional addition or ſubtraction, and thus ſolves the problem; ſo it is uſeful in inquiries of all kinds, to try all ſuch ſuppoſitions as occur with any appearance of probability, to endeavour to deduce the real phænomena from them; and if they do not anſwer in ſome tolerable meaſure, to reject them at once; or if they do, to add, expunge, correct, and improve, till we have brought the hypotheſis as near as we can to an agreement with nature. After this it muſt be left to be farther corrected and improved or entirely diſproved, by the light and evidence reflected upon it from the contiguous, and even, in ſome meaſure, from the remote branches of other ſciences.

Were this method commonly uſed, we might ſoon expect a great advancement in the ſciences. It would much abate that unreaſonable fondneſs, which thoſe who make few or no diſtinct hypotheſes, have for ſuch confuſed ones as occur accidentally to their imaginations, and recur afterwards by aſſociation. For the ideas, words, and reaſonings, belonging to the favourite hypotheſis, by recurring, and being much agitated in the brain, heat it, unite with each other, and ſo coaleſce in the ſame manner, as genuine truths do from induction and analogy. Verbal and grammatical analogies and coincidences are advanced into real ones; and the words which paſs often over the ear, in the form of ſubject and predicate, are from the influence of other aſſociations made to adhere together inſenſibly, like ſubjects and predicates, that have a natural connection. It is in vain to bid an inquirer form no hypotheſis. Every phænomenon will ſuggeſt ſomething of this kind; and, if he does not take care to ſtate ſuch as occur fully and fairly, and adjuſt them one to another, he may entertain a confuſed inconſiſtent mixture of all, of fictitious and real, poſſible add impoſſible; and become ſo perſuaded of it, as that counter aſſociations ſhall not be able to break the unnatural bond. But he that forms hypotheſes from the firſt, and tries them by the facts, ſoon rejects the moſt unlikely ones; and, being freed from theſe, is better qualified for the examination of thoſe that are probable. He will alſo confute his own poſitions ſo often, as to fluctuate in equilibrio, in reſpect of prejudices, and ſo be at perfect liberty to follow the ſtrongeſt evidences.

In like manner, the frequent attempts to make an hypotheſis that ſhall ſuit the phænomena, muſt improve a man in the method of doing this, and beget in him by degrees

degrees an imperfect practical art, just as algebraists and decypherers, that are much versed in practice, are possessed of innumerable subordinate artifices, besides the principal general ones, that are taught by the established rules of their arts; and these, though of the greatest use to themselves, can scarce be explained or communicated to others. These artifices may properly be referred to the head of factitious sagacity, being the result of experience, and of impressions often repeated, with small variations from the general resemblance.

Lastly, The frequent making of hypotheses, and arguing from them synthetically, according to the several variations and combinations of which they are capable, would suggest numerous phænomena, that otherwise escape notice, and lead to *experimenta crucis*, not only in respect of the hypothesis under consideration, but of many others. The variations and combinations just mentioned suggest things to the invention which the imagination unassisted is far unequal to; just as it would be impossible for a man to write down all the changes upon eight bells, unless he had some method to direct him.

But this method of making definite hypotheses, and trying them, is far too laborious and mortifying for us to hope, that inquirers will in general pursue it. It would be of great use to such as intend to pursue it, to make hypotheses for the phænomena, whose theories are well ascertained; such as those of the circulation of the blood, of the pressure of the air, of the different refrangibility of the rays of light, &c. and see how they are gradually compelled into the right road, even from wrong suppositions fairly compared with the phænomena. This would habituate the mind to a right method, and beget the factitious sagacity above-mentioned.

The second of the four methods proposed is, that of bringing the unknown quantity to an equation, and putting it into a form susceptible of all the algebraic operations. Now to this answers, in philosophy, the art of giving names, expressing nothing definite as to manner, quantity, &c. and then inserting these names, or indefinite terms, in all the enunciations of the phænomena, to see whether, from a comparison of these enunciations with each other, where the terms are used in the greatest latitude, some restrictions, something definite in manner, degree or mutual relation, will not result. Things that are quite unknown have often fixed relations to one another, and sometimes relations to things known, which, though not determinable with certainty and precision, may yet be determined in some probable manner, or within certain limits. Now, as in algebra it is impossible to express the relation of the unknown quantity to other quantities known or unknown, till it has a symbol assigned to it of the same kind with those that denote the others; so in philosophy we must give names to unknown quantities, qualities, causes, &c. not in order to rest in them, as the *Aristotelians* did, but to have a fixed expression, under which to treasure up all that can be known of the unknown cause, &c. in the imagination and memory, or in writing for future inquirers.

But then it is neceſſary for the ſame reaſons, that theſe terms ſhould have no more of ſecondary ideas from prior aſſociations, than the terms *x* and *y* in algebra. Whence, if we uſe old terms excluding the old aſſociations, the reader ſhould be made aware of this at firſt, and incidentally reminded of it afterwards. Sir *Iſaac Newton* has uſed the words *æther*, *attraction*, and ſome others, in this way, not reſting in them, but enumerating a great variety of phænomena; from the due compariſon of which with each other, and with ſuch as farther obſervation and experiments ſhall ſuggeſt, their laws and action will, perhaps, be diſcovered hereafter; ſo that we may be able to predict the phænomena. There is alſo an inſtance of the proper manner of reaſoning concerning the knowable relations of unknown things in Mr. *Mede's Clavis Apocalyptica*.

The third method is that of approximating to the roots of equations. Here a firſt poſition is obtained, which, though not accurate, approaches, however, to the truth. From this, applied to the equation, a ſecond poſition is deduced, which approaches nearer to the truth than the firſt; from the ſecond, a third, &c. till the analyſt obtains the true root, or ſuch an approximation as is practically equivalent, every preceding diſcovery being made the foundation for a ſubſequent one, and the equation reſolving itſelf, as it were, gradually. Now this is indeed the way, in which all advances in ſcience are carried on; and ſcientific perſons are in general aware, that it is and muſt be ſo. However, I thought it not improper to illuſtrate this general proceſs by a parallel taken from algebra, in which there is great exactneſs and beauty. Beſides, writers do not often diſpoſe their arguments and approximations in this way, though for want of it they loſe much of their clearneſs and force; and, where the writer does this, the reader is frequently apt to overlook the order of proofs and poſitions.

Sir *Iſaac Newton*'s Optics, Chronology, and Comment on *Daniel*, abound with inſtances to this purpoſe; and it is probable, that his great abilities and practice in algebraic inveſtigations led him to it inſenſibly. In his Chronology he firſt ſhews in groſs, that the technical chronology of the ancient *Greeks* led them to carry their authorities higher than the truth; and then, that the time of the *Seſoſtris* mentioned by the *Greek* hiſtorians was near that of *Seſac* mentioned in the Old Teſtament; whence it follows, that theſe two perſons were the ſame; and conſequently, that the exact time of *Seſoſtris*'s expedition may now be fixed by the Old Teſtament. And now, having two points abſolutely fixed, viz. the expeditions of *Seſoſtris* and *Xerxes*, he fixes all the moſt remarkable intermediate events; and theſe being alſo fixed, he goes on to the leſs remarkable ones in the *Greek* hiſtory. And the chronology of the *Greeks* being rectified, he makes uſe of it to rectify the cotemporary affairs of the *Egyptians*, *Aſſyrians*, *Babylonians*, *Medes*, and *Perſians*, making uſe of the preceding ſtep every where, for the determination of the ſubſequent one. He does alſo, in many caſes, caſt light and evidence back from the ſubſequent ones upon the precedent. But the other is his own order of proof, and ought to be that in which thoſe who call his chronology in queſtion ſhould proceed to inquire into it.

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The fourth and laſt method is that uſed by decypherers, in inveſtigating words written in unknown characters, or in known ones ſubſtituted for one another, according to ſecret and complex laws. The particular methods by which this is done are only known to thoſe who ſtudy and practice this art: however, it is manifeſt in general, that it is an algebra of its own kind; and that it bears a great reſemblance to the three foregoing methods; alſo, that it may be ſaid with juſtneſs and propriety in general, that philoſophy is the art of decyphering the myſteries of nature; that criticiſm bears an obvious relation to decyphering; and that every theory which can explain all the phænomena, has all the ſame evidence in its favour, that it is poſſible the key of a cypher can have from its explaining that cypher. And if the cauſe aſſigned by the theory have alſo its real exiſtence proved, it may be compared to the explanation of a cypher; which may be verified by the evidence of the perſon who writes in that cypher.

Theſe ſpeculations may ſeem uncouth to thoſe who are not converſant in mathematical inquiries; but to me they appear to caſt light and evidence upon the methods of purſuing knowledge in other matters, to ſharpen the natural ſagacity, and to furniſh *Loci* for invention. It appears alſo not impoſſible, that future generations ſhould put all kinds of evidences and inquiries into mathematical forms; and, as it were, reduce *Ariſtotle*'s ten Categories, and biſhop *Wilkins*'s forty *Summa Genera*, to the head of quantity alone, ſo as to make mathematics and logic, natural hiſtory, and civil hiſtory, natural philoſophy, and philoſophy of all other kinds, coincide *omni ex parte*

I will add two more remarks relating to the preſent ſubject.

Firſt, then, As in many mechanical problems, which fall ſtrictly under the conſideration of mathematicians, the quantities conſidered depend on ſeveral others, ſo as to increaſe in the ſimple or compound, direct or inverſe ratio of ſeveral others, and not to be greateſt or leaſt, when one or two of theſe are ſo, but when the *factum* of the proper powers of all is ſo; ſo throughout natural philoſophy, in phyſic, in the analyſis of the mind, &c. it is neceſſary to inquire as carefully as we can, upon how many conſiderable cauſes each effect depends; alſo, whether the ratios be ſimple or compound, direct or inverſe. For though it will ſeldom happen, that one can bring the practical problems, that occur in real life, to an exact eſtimate in this way, yet one may avoid part of that uncertainty and confuſion, to which perſons who take things merely in the groſs, are liable. Or in other words, it is better in every thing to have probable or tolerable limits for the *data*, with a regular method of computation, or even an approximation thereto, than to have only ſuch groſs and general conceptions, as reſult from the more or leſs frequent recurrency of impreſſions; even though they be ſomewhat improved by natural or acquired ſagacity, ariſing, in a kind of implicit indefinite way, from experience.

Secondly, It ſeems to me, that the rays of light may be conſidered as a kind of fluxions in reſpect of the biggeſt component particles of matter; I mean thoſe upon which Sir *Iſaac Newton* ſuppoſes the colours of natural bodies, and the changes effected

in chemical proceſſes, to depend. For, as the increments of variable quantities, when diminiſhed ſo as to bear no finite ratio to the quantities of which they are the increments, ſhew in a ſimple way the velocities with which theſe quantities are increaſed; and ſo give riſe to the determination of fluxions from fluents, and fluents from fluxions, and to all the applications of theſe determinations to real quantities, all which is entirely grounded upon the ſuppoſition, that the fluxions are not increments, but relative nothings; ſo, ſince the rays of light are ſo ſmall in reſpect of the biggeſt component particles, as to be relatively and practically nothing in reſpect of them, to bear no relation to any of them, all the differences obſervable in the actions of light upon theſe particles, and of theſe particles upon light, will depend purely upon the differences of theſe particles in reſpect of one another; it not being poſſible, that any part of them ſhould ariſe from the comparative magnitude of light, which is equally nothing in reſpect of them all. And thus it ſeems, that optics and chemiſtry will, at laſt, become a maſter-key for unlocking the myſteries in the conſtitution of natural bodies, according to the method recommended by Sir *Iſaac Newton*.

Let *A*, *B*, *C*, be three particles, whoſe magnitudes are 3, 2, and 1, reſpectively. It is evident, that the mutual influences between *A* and *C*, *B* and *C*, cannot correſpond entirely to the ratio which *A* and *B* bear to each other, becauſe *C* bears a different ratio to *A* from that which it bears to *B*; and this difference of ratios muſt have its ſhare in the effects of *A* and *B* upon *C*: whereas had *C* been a particle of light, it would have been equally nothing in reſpect both of *A* and *B*; and ſo the mutual influences between *A* and *C*, *B* and *C*, would entirely correſpond to the difference between *A* and *B*, and decypher it. Thus the particles of light, by being infinitely ſmaller than the biggeſt component ones of natural bodies, may become a kind of *communis norma*, whereby to meaſure their active powers.

PROP. LXXXVIII.

To make a general Application of the Theory of this and the foregoing Section, to the ſeveral Branches of Science.

All the ſciences, knowledge of all kinds, may be reduced to the ſeven general heads following, when they are underſtood in the latitude here expreſſed.

Firſt, Philology, or the knowledge of words, and their ſignifications. It comprehends under it the arts of grammar and criticiſm. Rhetoric and poetry may be referred to it.

Secondly, Mathematics, or the doctrine of quantity. It may be divided into three branches, viz. Arithmetic, which makes uſe of numbers as the exponents of quantity; geometry, which uſes figures for the ſame purpoſe; and algebra, which comprehends both

both theſe, and whoſe ſymbols are accordingly ſo general, as to repreſent the ſymbols of the two foregoing parts.

Thirdly, Logic, or the art of uſing words, conſidered as ſymbols, for making diſcoveries in all the branches of knowledge. It preſuppoſes philology to a certain degree; and muſt evidently, in the view here given of it, receive great illuſtration from mathematics, which is the art of making diſcoveries in the ſingle category of quantity, by means of the ſimpleſt kind of ſymbols.

Fourthly, Natural hiſtory, or regular and well digeſted accounts of the phænomena of the natural world. It may be diſtributed into ſix parts, *i. e.* into the natural hiſtories of animals, plants, minerals, the earth conſidered as a terraqueous globe, the atmoſphere, and the heavenly bodies.

Fifthly, Civil hiſtory, or regular accounts of the tranſactions of the world politic. To this head muſt be referred that part of geography which treats of the preſent manners, cuſtoms, laws, religion, &c. of the ſeveral nations of the world.

Sixthly, Natural philoſophy, or the application of the arts of mathematics and logic to the phænomena of natural and civil hiſtory, communicated to us by means of our previous ſkill in philology, in order to decypher the laws by which the external world is governed, and thereby to predict or produce ſuch phænomena, as we are intereſted in. Its parts are mechanics, hydroſtatics, pneumatics, optics, aſtronomy, chemiſtry, the theories of the ſeveral manual arts and trades, medicine and pſychology, or the theory of the human mind, with that of the intellectual principles of brute animals.

Seventhly, Religion, which might alſo be called divine philoſophy. This requires the application of all the foregoing branches of knowledge to each other in an endleſs reciprocation, in order to diſcover the nature of the inviſible world, of God, of good and evil ſpirits, and of the future ſtate, which commences at death, with all the duties that reſult from theſe conſiderations. The arts of ethics and politics are to be referred to this head. For, though theſe arts are ſuppoſed to teach individuals, and bodies politic, how to arrive at their *ſummum bonum* in the preſent world, yet, ſince the rules given for this purpoſe either are or ought to be the ſame with thoſe which teach mankind how to ſecure a happy futurity, it is plain, that theſe arts are included within the precepts of religion.

All theſe branches of knowledge are very much involved in each other; ſo that it is impoſſible to make any conſiderable progreſs in any one, without the aſſiſtance of moſt or all the reſt. However, each has alſo an independent part, which being laid down as a foundation, we may proceed to improve it by the light afforded from the independent parts of the other branches. I will here ſubjoin a few hints concerning the proper manner of proceeding in each branch.

OF PHILOLOGY.

The rudiments of the native language are learnt in infancy, by the repeated impreſſions of the ſounds, at the ſame time that the things ſignified are preſented to the ſenſes, as has been already explained. Words ſtanding for intellectual things, particles, &c. are decyphered by their connection with other words, by their making parts of ſentences, whoſe whole import is known. Grammatical analogy and derivation do alſo, in many caſes, diſcover the import of words. And many words may be explained by definitions. Where theſe ſeveral ways concur, the ſenſe is ſoon learnt, and ſteadily fixed; where they oppoſe each other, confuſion ariſes for a time, but the ſtrongeſt authority prevails at laſt. Tranſlations and dictionaries explain the words of unknown languages by thoſe of known ones. Afterwards we decypher by the context, deduce the ſenſe from analogy, &c. Theſe laſt methods reflect authority upon the tranſlations and dictionaries, where they agree with them. In living languages the import of the principal words may be aſcertained with eaſe and certainty; and theſe being fixed, the reſt become determinable and decypherable by proper care and caution, ſo that no practical errors can remain. In dead languages the difficulty is greater; but the certainty that ultimately reſults, is not leſs practically in reſpect of the bulk of the language, on account of the number of coincidences. But much remains undone yet, particularly in reſpect of the *Hebrew* language. Logic, natural and civil hiſtory, philoſophical and religious knowledge, may all, in their ſeveral ways, contribute to fix the true ſenſe of words. And the fixing the ſenſes of words, by all the methods here enumerated, may be called the art of making dictionaries. It receives great aſſiſtance from the art of grammar; and is at the ſame time the main foundation of it. This laſt art has alſo the ſame connections with the other branches of knowledge; as that of fixing the ſenſes of words. The ſame may be ſaid of criticiſm; which may be defined the art of reſtoring the corrupted paſſages of authors, and aſcertaining their genuine ſenſe, and method of reaſoning.

In all theſe things there ſeems to be a ſufficient foundation for unity of opinion amongſt thoſe that are truly learned and candid; at leaſt in all important points. And, in fact, the differences here amongſt the *literati* are plainly owing, in great meaſure, to ambition, envy, affectation of ſingularity and novelty, &c. All theſe things magnify the ideas and coaleſcences, which a man calls his own, thoſe of his party, &c. aſſociate ideas of truth, excellence, genius, &c. to them, and oppoſite ones to all that the ſuppoſed adverſary delivers.

No ſceptic can proceed ſo far as to diſclaim the ſenſe of the words of his native tongue, or of a foreign one, which he underſtands. The things ſignified thereby muſt and will be ſuggeſted by, and coaleſce with, the ſounds; ſo that he cannot but underſtand what he hears and reads. And this is all the truth that belongs to philology

as

as ſuch. The truth of the things expreſſed in words is a conſideration belonging to the ſeveral other branches of knowledge reſpectively.

As the plain didactic ſtyle is intended merely to inform the underſtanding, ſo the rhetorical and poetical ſtyles are intended to excite the paſſions by the aſſociations, which figurative terms and forms of expreſſion, flowing periods, numbers, rhymes, ſimiles, fables, fictions, &c. draw after them.

Painting and muſic produce a like effect upon the paſſions as rhetoric and poetry, and by means that are not very unlike. But I ſhall have occaſion hereafter to ſay ſomething more concerning all theſe imaginative arts.

OF MATHEMATICS.

Mathematics are that branch of knowledge which is the moſt independent of any, and the leaſt liable to uncertainty, difference of opinion, and ſceptical doubts. However, uncertainties, differences, and doubts, have ariſen here; but then they have been chiefly about ſuch parts of mathematics as fall under the conſideration of the logician. For, it ſeems impoſſible that a man who has qualified himſelf duly, ſhould doubt about the juſtneſs of an arithmetical, algebraical, or fluxional operation, or the concluſiveneſs of a geometrical demonſtration.

The words point, line, ſurface, infinitely great, infinitely little, are all capable of definitions, at leaſt of being explained by other words. But then theſe words cannot ſuggeſt any viſible ideas to the imagination, but what are inconſiſtent with the very words themſelves. However, this inconſiſtency has no effect upon the reaſoning. It is evident, that all that can be meant by the three angles of a triangle being equal to two right ones, or the parabolic area to $\frac{2}{3}$ of the circumſcribing parallelogram, or deduced from theſe poſitions, muſt always hold in future fact; and this, as obſerved above, is all the truth that any thing can have. In fluxional concluſions it is demonſtratively evident, that the quantity under conſideration cannot be greater or leſs by any thing aſſignable, than according to the fluxional concluſion; and this ſeems to me entirely the ſame thing as proving it to be equal.

I cannot preſume to ſuggeſt any particular methods by which farther diſcoveries may be made in mathematical matters, which are ſo far advanced, that few perſons are able to comprehend even what is diſcovered and unfolded already. However, it may not be amiſs to obſerve, that all the operations of arithmetic, geometry, and algebra, ſhould be applied to each other in every poſſible way, ſo as to find out in each ſomething analogous to what is already known and eſtabliſhed in the other two. The application of the arithmetical operations of diviſion and extraction of roots to algebraic quantities, and of the method of obtaining the roots of numeral equations by approximation to ſpecious ones, as taught by Sir *Iſaac Newton*, have been the ſources of the greateſt fluxional diſcoveries.

OF

OF LOGIC.

It is the purport of this and the foregoing ſection, to give imperfect rudiments of ſuch an art of logic, as is defined above, *i. e*, as ſhould make uſe of words in the way of mathematical ſymbols, and proceed by mathematical methods of inveſtigation and computation in inquiries of all ſorts. Not that the *data* in the ſciences are as yet, in general, ripe for ſuch methods; but they ſeem to tend to this more and more perpetually, in particular branches, ſo that it cannot be amiſs to prepare ourſelves, in ſome meaſure, previouſly.

Logic, and metaphyſics, which are nearly allied to logic, ſeem more involved in obſcurity and perplexity, than any other part of ſcience. This has probably been the chief ſource of ſcepticiſm, ſince it appears neceſſary, that that part of knowledge, which is the baſis of all others, which is to ſhew wherein certainty, probability, poſſibility, improbability, and impoſſibility, conſiſt, ſhould itſelf be free from all doubt and uncertainty.

It ſeems alſo, that as logic is required for the baſis of the other ſciences, ſo a logic of a ſecond order is required for a baſis to that of the firſt, of a third for that of the ſecond, and ſo on *ſine limite:* which, if it were true, would, from the nature of dependent evidences, prove that logic is either abſolutely certain, or abſolutely void of all probability. For, if the evidence for it be ever ſo little inferior to unity, it will, by the continual infinite multiplication required in dependent evidences infinitely continued, bring itſelf down to nothing. Therefore, *e converſo*, ſince no one can ſay, that the rules of logic are void of all probability, the *ſummum genus* of them muſt be certain. This *ſummum genus* is the neceſſary coaleſcence of the ſubject with the predicate. But the argument here alleged is merely one *ad hominem*, and not the natural way of treating the ſubject. The neceſſary coaleſcence juſt ſpoken of carries its own evidence with it. It is neceſſary from the nature of the brain, and that in the moſt confirmed ſceptic, as well as in any other perſon. And we need only inquire into the hiſtory of the brain, and the phyſiological influences of words and ſymbols upon it by aſſociation, in order to ſee this. I am alſo inclined to believe, that the method here propoſed of conſidering words and ſentences as impreſſions, whoſe influence upon the mind is entirely to be determined by the aſſociations heaped upon them in the intercourſes of life, and endeavouring to determine theſe aſſociations, both analytically and ſynthetically, will caſt much light upon logical ſubjects, and cut off the ſources of many doubts and differences.

As the theories of all other arts and ſciences muſt be extracted from them, ſo logic, which contains the theory of all theſe theories, muſt be extracted from theſe theories; and yet this is not to reaſon in a circle in either caſe, ſince the theory is firſt extracted from ſelf-evident or allowed particulars, and then applied to particulars not yet known, in order to diſcover and prove them.

It

It may not be amiſs here to take notice how far the theory of theſe papers has led me to differ, in reſpect of logic, from Mr. *Locke*'s excellent *Eſſay on Human Underſtanding*, to which the world are ſo much indebted for removing prejudices and incumbrances, and advancing real and uſeful knowledge.

Firſt, then, It appears to me, that all the moſt complex ideas ariſe from ſenſation; and that reflection is not a diſtinct ſource, as Mr. *Locke* makes it.

Secondly, Mr. *Locke* aſcribes ideas to many words, which, as I have defined idea, cannot be ſaid to have any immediate and preciſe ones; but only to admit of definitions. However, let definition be ſubſtituted inſtead of idea, in theſe caſes, and then all Mr. *Locke*'s excellent rules concerning words, delivered in his third book, will ſuit the theory of theſe papers.

As to the firſt difference, which I think may be called an error in Mr. *Locke*, it is, however, of little conſequence. We may conceive, that he called ſuch ideas as he could analyſe up to ſenſation, ideas of ſenſation; the reſt ideas of reflection, uſing reflection as a term of art, denoting an unknown quantity. Beſides which it may be remarked, that the words which, according to him, ſtand for ideas of reflection, are, in general words, that, according to the theory of theſe papers, have no ideas, but definitions only. And thus the firſt difference, is as it were, taken away by the ſecond; for, if theſe words have no immediate ideas, there will be no occaſion to have recourſe to reflection as a ſource of ideas; and, upon the whole, there is no material repugnancy between the conſequences of this theory, and any thing advanced by Mr. *Locke*.

The ingenious biſhop *Berkeley* has juſtly obſerved againſt Mr. *Locke*, that there can be no ſuch thing as abſtract ideas, in the proper ſenſe of the word idea. However, this does not ſeem to vitiate any conſiderable part of Mr. *Locke*'s reaſoning. Subſtitute definition for idea in the proper places, and his concluſions will hold good in general.

OF NATURAL HISTORY.

Natural hiſtory is a branch of knowledge, which, at the firſt view, appears to have a boundleſs extent, and to be capable of the utmoſt practical preciſion and certainty, if ſufficient care and induſtry be employed. And, in fact, the doubts and differences here are not very conſiderable; they do alſo grow leſs and leſs every day, by the great quantity of knowledge of this kind, which is poured in from all quarters, as learning and inquiſitiveneſs diffuſe themſelves more and more amongſt all nations, and all orders of men.

The materials for natural hiſtory, which any ſingle perſon can collect from his own obſervation, being very inconſiderable, in reſpect of thoſe which he wants, he is obliged to have recourſe to others; and therefore muſt depend upon their teſtimony, juſt as in civil hiſtory. And our aſſent in each caſe, being excited by a variety of concurrent proofs, and of coincident circumſtances, transfers part of its authority upon the other.

We believe teſtimony in natural hiſtory, becauſe we do in civil, and *vice verſa*; and have a variety of concurrent confirmations in both caſes.

However, as the general facts are thus practically certain, ſo the ſubordinate ones are, in many caſes, liable to doubts. And it is evident, that, for the reſolution of theſe doubts in natural hiſtory, we muſt borrow the aſſiſtance of all the other branches of ſcience; and that ſome ſkill in philology muſt be attained, before we can hope to arrive at any tolerable perfection in natural or civil hiſtory. Natural hiſtory is the only ſure baſis of natural philoſophy, and has ſome influence upon all the other ſciences.

OF CIVIL HISTORY.

The general evidences upon which civil hiſtory is grounded, have been juſt hinted at. It is manifeſt, that the diſcoveries of natural hiſtorians, aſtronomers, linguiſts, antiquaries, and philoſophers of all kinds, have brought great light and evidence upon this branch of knowledge within the laſt two centuries; and are likely to do ſo more and more.

The ancient hiſtory of the kingdoms of *Aſia Minor*, *Egypt*, and *Greece*, will probably be much better underſtood, when the inhabitants of thoſe countries become learned.

He that would ſearch into the firſt ages of the world muſt take the ſcriptures for his guide, lay down the truth of theſe as unqueſtionable, and force all other evidences into that poſition. This ſeems to have been the method taken by Sir *Iſaac Newton* in his Chronology, and which at laſt unfolded to him the proper method of detecting and correcting the miſtakes in the ancient technical chronology of the *Greeks* by itſelf.

The concurrent independent evidences in the grand points of hiſtory are ſo much more numerous than the dependent ones, and moſt of them ſo ſtrong, ſingly taken, that the deficiency from certainty in theſe grand points cannot be diſtinguiſhed by the human mind. And therefore it is a practical error of great importance to ſuppoſe, that ſuch kind of hiſtorical evidences are inferior to mathematical ones. They are equal, as far as we have any thing to do with them, *i. e.* can judge of them, or be influenced by them. All future facts depending on them have as good a baſis, as thoſe depending on mathematical evidences. I ſpeak here of principal matters, ſuch as the conqueſts of *Alexander* and *Julius Cæſar*, and the main hiſtory, common and miraculous, of the Old and New Teſtaments. Till our knowledge be applied to the predicting or producing future facts, no ſort of it is of uſe or importance to us; and the application of mathematical knowledge is juſt as much expoſed to the ſeveral kinds and degrees of uncertainty, as that of any other. That the evidence for principal hiſtorical facts is not, in general, conſidered as equal to mathematical certainty, ariſes partly from the juſt-mentioned ill-grounded affirmations of learned men; partly from the complexneſs of the hiſtorical proofs, which require time and conſideration to digeſt them; and partly becauſe

becauſe the uncertainty attending ſubordinate facts has diluted the evidence of the principal and unqueſtionable ones, ſince the ſame general forms of expreſſion are, and muſt be, uſed in both caſes.

OF NATURAL PHILOSOPHY.

It may be obſerved of natural philoſophy, that in the parts where the ideas are ſimple, clear, and of the viſible kind, or adequately expounded by ſuch, and the method of inveſtigation and computation mathematical, as in mechanics, hydroſtatics, pneumatics, optics, and aſtronomy, the doubts and diverſities of opinion which ariſe, are inconſiderable. But in the theories of chemiſtry, of manual arts and trades, of medicine, and, in general, of the powers and mutual actions of the ſmall parts of matter, the uncertainties and perplexities are as great, as in any part of ſcience. For the ſmall parts of matter, with their actions, are too minute to be the objects of ſight; and we are as yet neither poſſeſſed of a detail of the phænomena ſufficiently copious and regular, whereon to ground an inveſtigation; nor of a method of inveſtigation ſubtle enough to arrive at the ſubtlety of nature, even in the biggeſt component particles, much leſs in the particles of the ſmaller orders; and how far the number of orders may go, is impoſſible to ſay. I ſee no contradiction in ſuppoſing it infinite, and a great difficulty in ſtopping at any particular ſize.

Suppoſe the number of orders of particles infinite, or at leaſt very great; and that particles of all orders are perpetually flying off from all bodies with great velocity. Firſt, This may occaſion the gravitation of the great bodies of the univerſe to each other, by the impulſe of the ſmaller corpuſcles upon particles of ſizes equal to each other in the greater bodies, the impulſes of the larger corpuſcles, and upon particles, of unequal ſize, being evaneſcent in reſpect of the foregoing impulſes. But where particles approach near to one another, and the corpuſcles bear ſome finite ratio to the particles, ſo as not to pervade them freely, before they come to particles of equal ſize to each other, but affect them in proportion to their ſurfaces, not ſolid content, and I ſuppoſe from many other cauſes, attractions of other kinds may ariſe: and if one or both of the contiguous particles ſend out many corpuſcles with great force; alſo, if theſe corpuſcles efferveſce together in the intermediate ſpace, and gain new forces thence, &c. repulſive powers may riſe. If it be reaſonable to ſuppoſe many orders of particles, it is alſo reaſonable to ſuppoſe, that their powers and properties are ſomewhat analogous to one another; and that thoſe of the larger particles ariſe from, and are compounded of, thoſe of the next leſs in ſize, and ſo on; juſt as the whole gravity of the moon is compounded of the gravity of all its parts. But theſe are all very groſs and uncertain conjectures.

In the mean time, it ſeems proper to uſe the words magnetiſm, electricity, attraction of coheſion, *ſpiritus rector*, acrimony of the animal juices, &c. as terms of art, as

unknown cauſes of known effects. But then they ought always to be defined, the definitions rigorouſly kept to, and all ſecondary ideas from prior aſſociations excluded. Were this done in chemiſtry and medicine, it would produce a great reformation, and at once cut off many incumbrances, perplexities, and obſcurities. The *vis inertiæ* of bodies, and the equivalent terms, were once terms of this kind, ſtanding for the unknown cauſe of known phænomena. By degrees theſe phænomena were digeſted into order, the terms contributing thereto, and the three ſeveral kinds of them, claſſed reſpectively under the three laws of nature, which have been applied ſynthetically ſince, and given riſe to the greateſt mechanical diſcoveries. The ſame may be obſerved of gravity. And if the laws of magnetiſm, electricity, and the attraction of coheſion, could be aſcertained in the ſame manner as the laws of the *vis inertiæ* and gravity, we ſhould be enabled to predict and produce many effects of great importance to us.

It is of the higheſt uſe to us in practical matters, that the properties of bodies are ſo cloſely connected with each other. Thus the colour and ſpecific gravity of a metal, the viſible idea of a plant, alſo its taſte or ſmell, give us a practical certainty in reſpect of all the other properties. This cloſe connection of the properties follows undoubtedly from the powers and mutual actions of the ſmall parts; ſo that, if we could arrive at the knowledge of theſe laſt, we ſhould immediately ſee not only the reaſon of all the properties of bodies, which are known at preſent, but be able to diſcover innumerable other relative ones. In the mean time we muſt endeavour to diſcover, digeſt, and regiſter, the various properties of natural bodies, as they riſe to view from ſuitable experiments; and thus prepare the way for thoſe who ſhall hereafter decypher their internal conſtitution.

OF RELIGION.

All the foregoing branches of knowledge ought to be conſidered as mere preparatories and preliminaries to the knowledge of religion, natural and revealed. They all, in their ſeveral orders and degrees, concur to eſtabliſh the principal doctrines and duties of it; and theſe, when eſtabliſhed, become the beſt means for attaining knowledge. The benevolence of the Deity, and the doctrine of final cauſes, are the beſt clue for guiding us through the labyrinths of natural phænomena, and particularly of thoſe which relate to animals. The ſcriptures are the only book which can give us any juſt idea of ancient times, of the original of mankind, their diſperſion, &c. or of what will befal them in future generations. As to future things, predicted in the ſcriptures, we can as yet collect nothing more than general intimations; but there is reaſon to believe, that ſucceeding generations may arrive at a far more preciſe interpretation of prophecy. It may alſo be, that much philoſophical knowledge is concealed in the ſcriptures; and that it will be revealed in its due time. The analogy between the word and works of God, which is a conſideration of the religious kind, ſeems to comprehend the moſt important truths. To all this it muſt be added, that

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the temper of mind preſcribed by religion, viz. modeſty, impartiality, ſobriety, and diligence, are the beſt qualifications for ſucceeding in all inquiries. Thus religion comprehends, as it were, all other knowledge, advances, and is advanced by all; at the ſame time that where there is a morally good diſpoſition, a very ſmall portion of other knowledge is ſufficient for the attainment of all that is neceſſary for virtue and comfort here, and eternal happineſs hereafter.

The great differences of opinion, and contentions which happen in religious matters, are plainly owing to the violence of men's paſſions, more than to any other cauſe. Where religion has its due effect in reſtraining theſe, and begetting true candour, we may expect a unity of opinion, both in religious and other matters, as far as is neceſſary for uſeful practical purpoſes.

SECT. III.

OF THE AFFECTIONS IN GENERAL.

PROP. LXXXIX.

To explain the Origin and Nature of the Paſſions in general.

HERE we may obſerve,

Firſt, That our paſſions or affections can be no more than aggregates of ſimple ideas united by aſſociation. For they are excited by objects, and by the incidents of life. But theſe, if we except the impreſſed ſenſations, can have no power of affecting us, but what they derive from aſſociation; juſt as was obſerved above of words and ſentences.

Secondly, Since therefore the paſſions are ſtates of conſiderable pleaſure or pain, they muſt be aggregates of the ideas, or traces of the ſenſible pleaſures and pains, which ideas make up by their number, and mutual influence upon one another, for the faintneſs and tranſitory nature of each ſingly taken. This may be called a proof *a priori*. The proof *a poſteriori* will be given, when I come to analyſe the ſix claſſes of intellectual affections, viz. imagination, ambition, ſelf-intereſt, ſympathy, theopathy, and the moral ſenſe.

Thirdly, As ſenſation is the common foundation of all theſe, ſo each in its turn, when ſufficiently generated, contributes to generate and model all the reſt. We may conceive this to be done in the following manner. Let ſenſation generate imagination; then

then will ſenſation and imagination together generate ambition; ſenſation, imagination, and ambition, ſelf-intereſt; ſenſation, imagination, ambition, and ſelf-intereſt, ſympathy; ſenſation, imagination, ambition, ſelf-intereſt, and ſympathy, theopathy; ſenſation, imagination, ambition, ſelf-intereſt, ſympathy, and theopathy, the moral ſenſe: and, in an inverted order, imagination will new-model ſenſation; ambition, ſenſation and imagination; ſelf-intereſt, ſenſation, imagination, and ambition; ſympathy, ſenſation, imagination, ambition, and ſelf-intereſt; theopathy, ſenſation, imagination, ambition, ſelf-intereſt, and ſympathy; and the moral ſenſe, ſenſation, imagination, ambition, ſelf-intereſt, ſympathy, and theopathy: till at laſt, by the numerous reciprocal influences of all theſe upon each other, the paſſions arrive at that degree of complexneſs, which is obſerved in fact, and which makes them ſo difficult to be analyſed.

Fourthly, As all the paſſions ariſe thus from pleaſure and pain, their firſt and moſt general diſtribution may be into the two claſſes of love and hatred, *i. e.* we may term all thoſe affections of the pleaſurable kind, which objects and incidents raiſe in us, love; all thoſe of the painful kind, hatred. Thus we are ſaid to love not only intelligent agents of morally good diſpoſitions, but alſo ſenſual pleaſures, riches, and honours; and to hate poverty, diſgrace, and pain, bodily and mental.

Fifthly, When our love and hatred are excited to a certain degree, they put us upon a variety of actions, and may be termed deſire and averſion; by which laſt word I underſtand an active hatred. Now the actions which flow from deſire and averſion, are entirely the reſult of aſſociated powers and circumſtances, agreeably to the twentieth, twenty-firſt, and twenty-ſecond propoſitions, with their corollaries. The young child learns to graſp, and go up to the plaything that pleaſes him, and to withdraw his hand from the fire that burns him, at firſt from the mechaniſm of his nature, and without any deliberate purpoſe of obtaining pleaſure, and avoiding pain, or any explicit reaſoning about them. By degrees he learns, partly from the recurrency of theſe mechanical tendencies, inſpired by God, as one may ſay, by means of the nature which he has given us; and partly from the inſtruction and imitation of others; to purſue every thing which he loves and deſires; fly from every thing which he hates; and to reaſon about the method of doing this, juſt as he does upon other matters. And, becauſe mankind are for the moſt part purſuing or avoiding ſomething or other, the deſire of happineſs, and the averſion to miſery, are ſuppoſed to be inſeparable from, and eſſential to, all intelligent natures. But this does not ſeem to be an exact or correct way of ſpeaking. The moſt general of our deſires and averſions are factitious, *i. e.* generated by aſſociation; and therefore admit of intervals, augmentations, and diminutions. And, whoever will be ſufficiently attentive to the workings of his own mind, and the actions reſulting therefrom, or to the actions of others, and the affections which may be ſuppoſed to occaſion them, will find ſuch differences and ſingularities in different perſons, and in the ſame perſon

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at different times, as no way agree to the notion of an eſſential, original, perpetual deſire of happineſs, and endeavour to attain it; but much rather to the factitious aſſociated deſires and endeavours here aſſerted. And a due regard to this will, as it ſeems to me, ſolve many difficulties and perplexities found in treatiſes upon the paſſions. The writers upon this ſubject have begun in the ſynthetical method prematurely, and without having premiſed the analytical one. For it is very true, that, after general deſires and endeavours are generated, they give riſe in their turn to a variety of particular ones. But the original ſource is in the particular ones, and the general ones never alter and new-model the particular ones ſo much, as that there are not many traces and veſtiges of their original mechanical nature and proportions remaining.

Sixthly, The will appears to be nothing but a deſire or averſion ſufficiently ſtrong to produce an action that is not automatic primarily or ſecondarily. At leaſt it appears to me, that the ſubſtitution of theſe words for the word *will* may be juſtified by the common uſage of language. The will is therefore that deſire or averſion, which is ſtrongeſt for the then preſent time. For if any other deſire was ſtronger, the muſcular motion connected with it by aſſociation would take place, and not that which proceeds from the will, or the voluntary one, which is contrary to the ſuppoſition. Since therefore all love and hatred, all deſire and averſion, are factitious, and generated by aſſociation, *i. e.* mechanically; it follows that the will is mechanical alſo.

Seventhly, Since the things which we purſue do, when obtained, generally afford pleaſure, and thoſe which we fly from affect us with pain, if they overtake us, it follows that the gratification of the will is generally attended or aſſociated with pleaſure, the diſappointment of it with pain. Hence a mere aſſociated pleaſure is transferred upon the gratification of the will; a mere aſſociated pain upon the diſappointment of it. And if the will was always gratified, this mere aſſociated pleaſure would, according to the preſent frame of our natures, abſorb, as it were, all our other pleaſures; and thus by drying up the ſource from whence it ſprung, be itſelf dried up at laſt: and the firſt diſappointments, after a long courſe of gratification, would be intolerable. Both which things are ſufficiently obſervable, in an inferior degree, in children that are much indulged, and in adults, after a ſeries of ſucceſsful events. Gratifications of the will without the conſequent expected pleaſure, and diſappointments of it without the conſequent expected pain, are particularly uſeful to us here. And it is by this, amongſt other means, that the human will is brought to a conformity with the divine; which is the only radical cure for all our evils and diſappointments, and the only earneſt and medium for obtaining laſting happineſs.

Eighthly, We often deſire and purſue things which give pain rather than pleaſure. Here it is to be ſuppoſed, that at firſt they afforded pleaſure, and that they now give pain on account of a change in our nature and circumſtances. Now, as the continuance to deſire and purſue ſuch objects, notwithſtanding the pain ariſing from them, is

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the effect of the power of aſſociation, ſo the ſame power will at laſt reverſe its own ſteps, and free us from ſuch hurtful deſires and purſuits. The recurrency of pain will at laſt render the object undeſirable and hateful. And the experience of this painful proceſs, in a few particular inſtances, will at laſt, as in other caſes of the ſame kind, beget a habit of ceaſing to purſue things, which we perceive by a few trials, or by rational arguments, to be hurtful to us upon the whole.

Ninthly, A ſtate of deſire ought to be pleaſant at firſt from the near relation of deſire to love, and of love to pleaſure and happineſs. But in the courſe of a long purſuit, ſo many fears and diſappointments, apparent or real, in reſpect of the ſubordinate means, and ſo many ſtrong agitations of mind paſſing the limits of pleaſure, intervene, as greatly to chequer a ſtate of deſire with miſery. For the ſame reaſons ſtates of averſion are chequered with hope and comfort.

Tenthly, Hope and fear are, as juſt now obſerved, the attendants upon deſire and averſion. Theſe affect us more or leſs, according to the more or leſs frequent recurrency of the pleaſing and painful ideas, according to the greater or leſs probability of the expected event, according to the greater or leſs diſtance of time, &c. the power of aſſociation diſplaying itſelf every where in the agitations of mind excited by theſe paſſions. It is particularly remarkable here, that our hopes and fears riſe and fall with certain bodily diſpoſitions, according as theſe favour or oppoſe them.

Eleventhly, Joy and grief take place when the deſire and averſion, hope and fear, are at an end; and are love and hatred, exerted towards an object which is preſent, either in a ſenſible manner, or in a rational one, *i. e.* ſo as to occupy the whole powers of the mind, as ſenſible objects, when preſent, and attended to, do the external ſenſes. It is very evident, that the objects of the intellectual pleaſures and pains derive their power of thus affecting the mind from aſſociation.

Twelfthly, After the actual joy and grief are over, and the object withdrawn, there generally remains a pleaſing or diſpleaſing recollection or reſentment, which recurs with every recurrency of the idea of the object, or of the aſſociated ones. This recollection keeps up the love or hatred. In like manner the five grateful paſſions, love, deſire, hope, joy, and pleaſing recollection, all enhance one another; as do the five ungrateful ones, hatred, averſion, fear, grief, and diſpleaſing recollection. And the whole ten, taken together, comprehend, as appears to me, all the general paſſions of human nature.

SECT. IV.

OF MEMORY.

PROP XC.

To examine how far the Phænomena of Memory are agreeable to the foregoing Theory.

MEMORY was defined in the introduction to be that faculty by which traces of ſenſations and ideas recur, or are recalled, in the ſame order and proportion, accurately or nearly, as they were once preſented.

Now here we may obſerve,

Firſt, That memory depends entirely or chiefly on the ſtate of the brain. For diſeaſes, concuſſions of the brain, ſpirituous liquors, and ſome poiſons, impair or deſtroy it; and it generally returns again with the return of health, from the uſe of proper medicines and methods. And all this is peculiarly ſuitable to the notion of vibrations. If ſenſations and ideas ariſe from peculiar vibrations, and diſpoſitions to vibrate, in the medullary ſubſtance of the brain, it is eaſy to conceive, that the cauſes above alleged may ſo confound the ſenſations and ideas, as that the uſual order and proportion of the ideas ſhall be deſtroyed.

Secondly, The rudiments of memory are laid in the perpetual recurrency of the ſame impreſſions, and cluſters of impreſſions. How theſe leave traces, in which the order is preſerved, may be underſtood from the eighth, ninth, tenth, and eleventh propoſitions. The traces which letters, and words, *i. e.* cluſters of letters, leave, afford an inſtance and example of this. And, as in languages the letters are fewer than the ſyllables, the ſyllables than the words, and the words than the ſentences, ſo the ſingle ſenſible impreſſions, and the ſmall cluſters of them, are comparatively few in reſpect of the large cluſters; and, being ſo, they muſt recur more frequently, ſo as the ſooner to beget thoſe traces which I call the rudiments or elements of memory. When theſe traces or ideas begin to recur frequently, this alſo contributes to fix them, and their order, in the memory, in the ſame manner as the frequent impreſſion of the objects themſelves.

Thirdly, Suppoſe now a perſon ſo far advanced in life, as that he has learnt all theſe rudiments, *i. e.* that he has ideas of the common appearances and occurrences of life, under a conſiderable variety of ſubordinate circumſtances, which recur to his imagination from the ſlighteſt cauſes, and with the moſt perfect facility; and let us aſk, how he can be able to remember or recollect a paſt fact, conſiſting of one thouſand ſingle particulars, or of one hundred ſuch cluſters as are called the rudiments of memory; ten ſingle particulars being ſuppoſed to conſtitute a rudiment? Firſt, then, we may obſerve, that there are only one hundred links wanting in the chain; for he has already learnt conſider-

able exactneſs in the ſubordinate circumſtances of the one hundred cluſters; and perfect exactneſs is not to be ſuppoſed or required.—Secondly, The one hundred cluſters recur again and again to the imagination for ſome time after the fact, in a quick and tranſient manner, as thoſe who attend ſufficiently to what paſſes in their own minds may perceive; and this both makes the impreſſion a little deeper, and alſo ſerves to preſerve the order. If the perſon attempts to recollect ſoon after the impreſſion, the effect remaining in the brain is ſufficient to enable him to do this with the accuracy required and experienced; if a longer time intervenes, before he attempts to recollect, ſtill the number of involuntary recurrencies makes up in ſome meaſure for the want of this voluntary recollection. However, the power of recollection declines in general, and is entirely loſt by degrees. It confirms this reaſoning, that a new ſet of ſtrong impreſſions deſtroys this power of recollection. For this muſt both obliterate the effects of the foregoing impreſſions, and prevent the recurrency of the ideas.—Thirdly, As the ſingle impreſſions, which make the ſmall cluſters, are not combined together at hazard, but according to a general tenor in nature, ſo the cluſters which make facts ſucceed each other according to ſome general tenor likewiſe. Now this both leſſens the number of varieties, and ſhews that the aſſociation between many of the cluſters, or rudiments, or one hundred links ſuppoſed to be wanting, is cemented already. This may be both illuſtrated and exemplified by the obſervation, that it is difficult to remember even well-known words that have no connection with each other, and more ſo to remember collections of barbarous terms; whereas adepts in any ſcience remember the things of that ſcience with a ſurprizing exactneſs and facility.—Fourthly, Some cluſters are excluded from ſucceeding others, by ideas of inconſiſtency, impoſſibility, and by the methods of reaſoning, of which we become maſters as we advance in life.—Fifthly, The viſible impreſſions which concur in the paſt fact, by being vivid, and preſerving the order of place, often contribute greatly to preſerve the order of time, and to ſuggeſt the cluſters which may be wanting.—Sixthly, It is to be obſerved, that we think in words both the impreſſions and the recurrencies of ideas will be attended with words; and theſe words, from the great uſe and familiarity of language, will fix themſelves ſtrongly in the fancy, and by ſo doing bring up the aſſociated trains of ideas in the proper order, accurately or nearly. And thus, when a perſon relates a paſt fact, the ideas do in ſome caſes ſuggeſt the words, whilſt in others the words ſuggeſt the ideas. Hence illiterate perſons do not remember nearly ſo well as others, *cæteris paribus*. And I ſuppoſe the ſame is true of deaf perſons in a ſtill greater degree. But it ariſes hence alſo, that many miſtakes in the ſubordinate circumſtances are committed in the relations of paſt facts, if the relater deſcends to minute particulars. For the ſame reaſons theſe miſtakes will be ſo aſſociated with the true facts after a few relations, that the relater himſelf ſhall believe, that he remembers them diſtinctly.—Seventhly, The miſtakes which are committed both on the foregoing account and others, make conſiderable abatements in the difficulty here to be ſolved.

Fourthly, Let it now be aſked, in what the recollection of a paſt fact, conſiſting of one hundred cluſters, as above, differs from the tranſit of the ſame one hundred cluſters

over

over the fancy, in the way of a reverie? I anſwer, partly in the vividneſs of the cluſters, partly and principally in the readineſs and ſtrength of the aſſociations, by which they are cemented together. This follows from what has been already delivered; but it may be confirmed alſo by many other obſervations.—Thus, firſt many perſons are known by relating the ſame falſe ſtory over and over again, *i. e.* by magnifying the ideas, and their aſſociations, at laſt to believe that they remember it. It makes as vivid an impreſſion upon them, and hangs as cloſely together, as an aſſemblage of paſt facts recollected by memory.—Secondly, All men are ſometimes at a loſs to know whether cluſters of ideas that ſtrike the fancy ſtrongly, and ſucceed each other readily and immediately, be recollections, or mere reveries. And the more they agitate the matter in the mind, the more does the reverie appear like a recollection. It reſembles this, that if in endeavouring to recollect a verſe, a wrong word, ſuiting the place, firſt occurs, and afterwards the right one, it is difficult during the then preſent agitation to diſtinguiſh the right one. But afterwards, when this agitation is ſubſided, the right word eaſily regains its place. Perſons of irritable nervous ſyſtems are more ſubject to ſuch fallacies than others. And madmen often impoſe upon themſelves in this way, viz. from the vividneſs of their ideas and aſſociations, produced by bodily cauſes. The ſame thing often happens in dreams. The vividneſs of the new ſcene often makes it appear like one that we remember, and are well acquainted with. Thirdly, If the ſpecific nature of memory conſiſt in the great vigour of the ideas, and their aſſociations, then, as this vigour abates, it ought to ſuggeſt to us a length of time elapſed; and *vice verſa*, if it be kept up, the diſtance of time ought to appear contracted. Now this laſt is the caſe: for the death of a friend, or any intereſting event, often recollected and related, appears to have happened but yeſterday, as we term it, viz. on account of the vividneſs of the cluſters, and their aſſociations, correſponding to the nature of a recent event.—Fourthly, It is not, however, to be here ſuppoſed, that we have not many other ways of diſtinguiſhing real recollections from mere reveries. For the firſt are ſupported by their connection with known and allowed facts, by various methods of reaſoning, and having been related as real recollections, &c.

Fifthly, In like manner we diſtinguiſh a new place, book, perſon, &c. from one which we remember, ſuppoſing both to be preſented in like circumſtances. The parts, aſſociates, &c. of that which we remember, ſtrike us more ſtrongly, are ſuggeſted by each other, and hang together, which does not hold of the new. The old does alſo ſuggeſt many aſſociates, which a new one in like circumſtances would not. And if from the then ſtate of fancy, the diſtance of time, &c. there be any doubt of theſe things, either with reſpect to the old or new, a like doubt ariſes in reſpect of the memory. An attentive perſon may obſerve, that he determines of ſuch things, whether they be old or new, by the vividneſs of the ideas, and their power of ſuggeſting each other, and foreign aſſociates.

Some perſons ſeem to ſuppoſe, that the ſoul ſurveys one object, the old for inſtance, and comparing it with the impreſſions which a ſimiliar new one would excite, calls the old one an object remembered. But this is like ſuppoſing an eye within the eye to view the pictures made by objects upon the *retina*. Not to mention, that the ſoul cannot in the ſame inſtant, during the ſame τὸ νῦν, ſurvey both the old and new, and compare them together; nor is there any evidence, that this is done in fact. A perſon who inquires into the nature of memory, may indeed endeavour to ſtate the difference between the impreſſions of old and new, as I have done here; but this is a ſpeculation that few perſons concern themſelves with, whereas all remember and apply the words relative to memory, juſt as they do other words. We may conclude therefore, that the difference of vividneſs and connection in the ideas, with the other aſſociates of recollections, are a ſufficient foundation for the proper uſe of the words relative to the memory, juſt as in other like caſes.

Sixthly, The peculiar imperfection of the memory in children tallies with the foregoing account of this faculty; and indeed this account may be conſidered as a groſs general hiſtory of the ſucceſſive growth of the memory, in paſſing from childhood to adult age. Children muſt learn by degrees the ideas of ſingle impreſſions, the cluſters which I call rudiments, and the moſt uſual connections and combinations of theſe. They have alſo the uſe of words, and of objects and incidents, as ſigns and ſymbols, with the proper method of reaſoning upon them, to learn; and during their novitiate in theſe things their memories muſt labour under great imperfections. It appears alſo, that the imperfections peculiar to children correſpond in kind as well as degree to the reaſons here aſſigned for them. Their not being able to digeſt paſt facts in order of time is, in great meaſure, owing to their not having the proper uſe of the ſymbols, whereby time is denoted.

Seventhly, The peculiar imperfection of the memory in aged perſons tallies alſo with the foregoing account. The vibrations, and diſpoſitions to vibrate, in the ſmall medullary particles, and their aſſociations, are all ſo fixed by the calloſity of the medullary ſubſtance, and by repeated impreſſions and recurrencies, that new impreſſions can ſcarce enter, that they recur ſeldom, and that the parts which do recur bring in old trains from eſtabliſhed aſſociations, inſtead of continuing thoſe which were lately impreſſed. Hence one may almoſt predict what very old perſons will ſay or do upon common occurrences. Which is alſo the caſe frequently with perſons of ſtrong paſſions, for reaſons that are not very unlike. When old perſons relate the incidents of their youth with great preciſion, it is rather owing to the memory of many preceding memories, recollections, and relations, than to the memory of the thing itſelf.

Eighthly, In recovering from concuſſions, and other diſorders of the brain, it is uſual for the patient to recover the power of remembering the then preſent common incidents for minutes, hours, and days, by degrees; alſo the power of recalling the events of his life preceding his illneſs. At length he recovers this laſt power perfectly, and at the

ſame

ſame time forgets almoſt all that paſt in his illneſs, even thoſe things which he remembered, at firſt, for a day or two. Now the reaſon of this I take to be, that upon a perfect recovery the brain recovers its natural ſtate, *i. e.* all its former diſpoſitions to vibrate; but that ſuch as took place during the preternatural ſtate of the brain, *i. e.* during his illneſs, are all obliterated by the return of the natural ſtate. In like manner dreams, which happen in a peculiar ſtate of the brain, *i. e.* in ſleep, vaniſh, as ſoon as vigilance, a different ſtate, takes place. But if they be recollected immediately upon waking, and thus connected with the ſtate of vigilance, they may be remembered. But I ſhall have occaſion to be more explicit on this head in the next ſection.

Ninthly, It is very difficult to make any plauſible conjectures why ſome perſons of very weak judgments, not much below idiots, are endued with a peculiar extraordinary memory. This memory is generally the power of recollecting a large group of words, ſuppoſe, as thoſe of a ſermon, in a ſhort time after they are heard, with wonderful exactneſs and readineſs; but then the whole is obliterated, after a longer time, much more completely than in perſons of common memories and judgments. One may perhaps conjecture, that the brain receives all diſpoſitions to vibrate ſooner in theſe perſons, and lets them go ſooner, than in others. And the laſt may contribute to the firſt: for, new impreſſions may take place more deeply and preciſely, if there be few old ones to oppoſe them. The moſt perfect memory is that which can both receive moſt readily, and retain moſt durably. But we may ſuppoſe, that there are limits, beyond which theſe two different powers cannot conſiſt with each other.

Tenthly, When a perſon deſires to recollect a thing that has eſcaped him, ſuppoſe the name of a perſon, or viſible object, he recalls the viſible idea, or ſome other aſſociate, again and again, by a voluntary power, the deſire generally magnifying all the ideas and aſſociations; and thus bringing in the aſſociation and idea wanted, at laſt. However, if the deſire be great, it changes the ſtate of the brain, and has an oppoſite effect; ſo that the deſired idea does not recur, till all has ſubſided; perhaps not even then.

Eleventhly, All our voluntary powers are of the nature of memory; as may be eaſily ſeen from the foregoing account of it, compared with the account of the voluntary powers given in the firſt chapter. And it agrees remarkably with this, that, in morbid affections of the memory, the voluntary actions ſuffer a like change and imperfection.

Twelfthly, For the ſame reaſons the whole powers of the ſoul may be referred to the memory, when taken in a large ſenſe. Hence, though ſome perſons may have ſtrong memories with weak judgments, yet no man can have a ſtrong judgment with a weak original power of retaining and remembering.

SECT.

SECT. V.

OF IMAGINATION, REVERIES, AND DREAMS.

PROP. XCI.

To examine how far the Phænomena of Imagination, Reveries, and Dreams, are agreeable to the foregoing Theory.

THE recurrence of ideas, eſpecially viſible and audible ones, in a vivid manner, but without any regard to the order obſerved in paſt facts, is aſcribed to the power of imagination or fancy. Now here we may obſerve, that every ſucceeding thought is the reſult either of ſome new impreſſion, or of an aſſociation with the preceding. And this is the common opinion. It is impoſſible indeed to attend ſo minutely to the ſucceſſion of our ideas, as to diſtinguiſh and remember for a ſufficient time the very impreſſion or aſſociation which gave birth to each thought; but we can do this as far as it can be expected to be done, and in ſo great a variety of inſtances, that our argument for the prevalence of the foregoing principle of aſſociation in all inſtances, except thoſe of new impreſſions, may be eſteemed a complete induction.

A reverie differs from imagination only in that the perſon being more attentive to his own thoughts, and leſs diſturbed by foreign objects, more of his ideas are deducible from aſſociation, and fewer from new impreſſions.

It is to be obſerved, however, that in all the caſes of imagination and reverie the thoughts depend, in part, upon the then ſtate of body or mind. A pleaſurable or painful ſtate of the ſtomach or brain, joy or grief, will make all the thoughts warp their own way, little or much. But this exception is as agreeable to the foregoing theory, as the general prevalence of aſſociation juſt laid down.

We come next to dreams. I ſay then, that dreams are nothing but the imaginations, fancies, or reveries of a ſleeping man; and that they are deducible from the three following cauſes, viz. Firſt, The impreſſions and ideas lately received, and particularly thoſe of the preceding day. Secondly, The ſtate of the body, particularly of the ſtomach and brain. And, Thirdly, Aſſociation.

That dreams are, in part, deducible from the impreſſions and ideas of the preceding day, appears from the frequent recurrence of theſe in greater or leſſer cluſters, and eſpecially of the viſible ones, in our dreams. We ſometimes take in ideas of longer date, in part, on account of their recency: however, in general, ideas that have not affected

affected the mind for ſome days, recur in dreams only from the ſecond or third cauſe here aſſigned.

That the ſtate of the body affects our dreams, is evident from the dreams of ſick perſons, and of thoſe who labour under indigeſtions, ſpaſms, and flatulencies.

Laſtly, We may perceive ourſelves to be carried on from one thing to another in our dreams partly by aſſociation.

It is alſo highly agreeable to the foregoing theory to expect, that each of the three foregoing cauſes ſhould have an influence upon the trains of ideas, that are preſented in dreams.

Let us now ſee how we can ſolve the moſt uſual phænomena of dreams upon theſe principles.

Firſt, then, The ſcenes which preſent themſelves are taken to be real. We do not conſider them as the work of the fancy; but ſuppoſe ourſelves preſent, and actually ſeeing and hearing what paſſes. Now this happens, Firſt, Becauſe we have no other reality to oppoſe to the ideas which offer themſelves, whereas in the common fictions of the fancy, while we are awake, there is always a ſet of real external objects ſtriking ſome of our ſenſes, and precluding a like miſtake there: or, if we come quite inattentive to external objects, the reverie does ſo far put on the nature of a dream, as to appear a reality.—Secondly, The trains of viſible ideas, which occur in dreams, are far more vivid than common viſible ideas; and therefore may the more eaſily be taken for actual impreſſions. For what reaſons theſe ideas ſhould be ſo much more vivid, I cannot preſume to ſay. I gueſs, that the excluſion of real impreſſions has ſome ſhare, and the increaſed heat of the brain may have ſome likewiſe. The fact is moſt obſervable in the firſt approaches of ſleep; all the viſible ideas beginning then to be more than uſually glaring.

Secondly, There is a great wildneſs and inconſiſtency in our dreams. For the brain, during ſleep, is in a ſtate ſo different from that in which the uſual aſſociations were formed, that they can by no means take place as they do during vigilance. On the contrary, the ſtate of the body ſuggeſts ſuch ideas, amongſt thoſe that have been lately impreſſed, as are moſt ſuitable to the various kinds and degrees of pleaſant and painful vibrations excited in the ſtomach, brain, or ſome other part. Thus a perſon who has taken opium, ſees either gay ſcenes, or ghaſtly ones, according as the opium excites pleaſant or painful vibrations in the ſtomach. Hence it will follow, that ideas will riſe ſucceſſively in dreams, which have no ſuch connection as takes place in nature, in actual impreſſions, nor any ſuch as is deducible from aſſociation. And yet, if they riſe up quick and vividly one after another, as ſubjects, predicates, and other aſſociates, uſe to do, they will be affirmed of each other, and appear to hang together. Thus the ſame perſon appears in two places at the ſame time; two perſons appearing ſucceſſively in the ſame place coaleſce into one; a brute is ſuppoſed to ſpeak (when the idea of a voice comes from that quarter) or to handle; any idea, qualification, office, &c. coinciding

ciding in the inſtant of time with the idea of one's ſelf, or of another perſon, adheres immediately, &c. &c.

Thirdly, We do not take notice of, or are offended at, theſe inconſiſtencies; but paſs on from one to another. For the aſſociations, which ſhould lead us thus to take notice, and be offended, are, as it were, aſleep; the bodily cauſes alſo hurrying us on to new and new trains ſucceſſively. But if the bodily ſtate be ſuch as favours ideas of anxiety and perplexity, then the inconſiſtency, and apparent impoſſibility, occurring in dreams, are apt to give great diſturbance and uneaſineſs. It is to be obſerved likewiſe, that we forget the ſeveral parts of our dreams, very faſt in paſſing from one to another; and that this leſſens the apparent inconſiſtencies, and their influences.

Fourthly, It is common in dreams for perſons to appear to themſelves to be transferred from one place to another, by a kind of ſailing or flying motion. This ariſes from the change of the apparent magnitude and poſition of the images excited in the brain, this change being ſuch as a change of diſtance and poſition in ourſelves would have occaſioned. Whatever the reaſons be, for which viſible images are excited in ſleep, like to the objects with which we converſe when awake, the ſame reaſons will hold for changes of apparent magnitude and poſition alſo; and theſe changes in fixed objects, being conſtantly aſſociated with motions in ourſelves when awake, will infer theſe motions when aſleep. But then we cannot have the idea of the *vis inertiæ* of our own bodies, anſwering to the impreſſions in walking; becauſe the nerves of the muſcles either do not admit of ſuch miniature vibrations in ſleep; or do not tranſmit ideas to the mind in conſequence thereof; whence we appear to ſail, fly, or ride. Yet ſometimes a perſon ſeems to walk, and even to ſtrike, juſt as in other caſes he ſeems to feel the impreſſion of a foreign body on his ſkin.

Thoſe who walk and talk in their ſleep, have evidently the nerves of the muſcles concerned ſo free, as that vibrations can deſcend from the internal parts of the brain, the peculiar reſidence of ideas, into them. At the ſame time the brain itſelf is ſo oppreſſed, that they have ſcarce any memory. Perſons who read inattentively, *i. e.* ſee and ſpeak almoſt without remembering, alſo thoſe who labour under ſuch a morbid loſs of memory, as that though they ſee, hear, ſpeak, and act, *pro re nata*, from moment to moment, yet they forget all immediately, ſomewhat reſemble the perſons who walk and talk in ſleep.

Fifthly, Dreams conſiſt chiefly of viſible imagery. This agrees remarkably with the perpetual impreſſions made upon the optic nerves and correſponding parts of the brain during vigilance, and with the diſtinctneſs and vividneſs of the images impreſſed.

We may obſerve alſo, that the viſible imagery in dreams is compoſed, in a conſiderable degree, of fragments of viſible appearances lately impreſſed. For the diſpoſition to theſe vibrations muſt be greater than to others, *cæteris paribus*, at the ſame time that by the imperfection and interruption of the aſſociations, only fragments, not whole images, will generally appear. The fragments are ſo ſmall, and ſo intermixed with other

other fragments and appearances, that it is difficult to trace them up to the preceding day; the ſhortneſs of our memory contributing alſo not a little thereto.

It happens in dreams, that the ſame fictitious places are preſented again and again at the diſtance of weeks and months, perhaps during the whole courſe of life. Theſe places are, I ſuppoſe, compounded at firſt, probably early in youth, of fragments of real places, which we have ſeen. They afterwards recur in dreams, becauſe the ſame ſtate of brain recurs; and when this has happened for ſome ſucceſſions, they may be expected to recur at intervals during life. But they may alſo admit of variations, eſpecially before frequent recurrency has eſtabliſhed and fixed them.

Sixthly, It has been obſerved already, that many of the things which are preſented in dreams, appear to be remembered by us, or, at leaſt, as familiar to us; and that this may be ſolved by the readineſs with which they ſtart up, and ſucceed one another, in the fancy.

Seventhly, It has alſo been remarked, that dreams ought to be ſoon forgotten, as they are in fact; becauſe the ſtate of the brain ſuffers great changes in paſſing from ſleep to vigilance. The wildneſs and inconſiſtency of our dreams render them ſtill more liable to be forgotten. It is ſaid, that a man may remember his dreams beſt by continuing in the ſame poſture in which he dreamt; which, if true, would be a remarkable confirmation of the doctrine of vibrations; ſince thoſe which take place in the medullary ſubſtance of the brain would be leaſt diſturbed and obliterated by this means.

Eighthly, The dreams which are preſented in the firſt part of the night are, for the moſt part, much more confuſed, irregular, and difficult to be remembered, than thoſe which we dream towards the morning; and theſe laſt are often rational to a conſiderable degree, and regulated according to the uſual courſe of our aſſociations. For the brain begins then to approach to the ſtate of vigilance, or that in which the uſual aſſociations were formed and cemented. However, aſſociation has ſome power even in wild and inconſiſtent dreams.

Cor. 1. As the prophecies were, many of them, communicated in the way of divine viſions, trances, or dreams, ſo they bear many of the foregoing marks of dreams. Thus they deal chiefly in viſible imagery; they abound with apparent impoſſibilities, and deviations from common life, of which yet the prophets take not the leaſt notice: they ſpeak of new things as of familiar ones; they are carried in the ſpirit from place to place; things requiring a long ſeries of time in real life, are tranſacted in the prophetical viſions, as ſoon as ſeen; they aſcribe to themſelves and others new names, offices, &c. every thing has a real exiſtence conferred upon it; there are ſingular combinations of fragments of viſible appearances; and God himſelf is repreſented in a viſible ſhape, which of all other things muſt be moſt offenſive to a pious *Jew*. And it ſeems to me, that theſe, and ſuch like criterions might eſtabliſh the genuineneſs of the prophecies, excluſively of all other evidences.

Cor. 2. The wildneſs of our dreams ſeems to be of ſingular uſe to us, by interrupting and breaking the courſe of our aſſociations. For, if we were always awake, ſome accidental aſſociations would be ſo much cemented by continuance, as that nothing could afterwards disjoin them; which would be madneſs.

Cor. 3. A perſon may form a judgment of the ſtate of his bodily health, and of his temperance, by the general pleaſantneſs or unpleaſantneſs of his dreams. There are alſo many uſeful hints relating to the ſtrength of our paſſions deducible from them.

SECT. VI.

OF IMPERFECTIONS IN THE RATIONAL FACULTY.

PROP. XCII.

To examine how far Deviations from ſound Reaſon, and Alienations of Mind, are agreeable to the foregoing Theory.

Mad perſons differ from others in that they judge wrong of paſt or future facts of a common nature; that their affections and actions are violent and different from, or even oppoſite to, thoſe of others upon the like occaſions, and ſuch as are contrary to their true happineſs; that their memory is fallacious, and their diſcourſe incoherent; and that they loſe, in great meaſure, that conſciouſneſs which accompanies our thoughts and actions, and by which we connect ourſelves with ourſelves from time to time. Theſe circumſtances are variouſly combined in the various kinds and degrees of madneſs; and ſome of them take place in perſons of ſound minds, in certain degrees, and for certain ſpaces of time; ſo that here, as in other caſes, it is impoſſible to fix preciſe limits, and to determine where ſoundneſs of mind ends, and madneſs begins. I will make ſome ſhort remarks, deduced from the theory of theſe papers, upon the following ſtates of mind, which all bear ſome relation to one another, and all differ from the perfection of reaſoning natural to adults, according to the ordinary courſe of things, viz.

1. The erroneouſneſs of the judgment in children and idiots.
2. The dotage of old perſons.
3. Drunkenneſs.
4. The deliriums attending acute or other diſtempers.

5. The

5. The frequent recurrency of the ſame ideas in a courſe of ſtudy, or otherwiſe.
6. Violent paſſions.
7. Melancholy.
8. Madneſs.

OF THE ERRONEOUSNESS OF THE JUDGMENT IN CHILDREN AND IDIOTS.

Children often miſrepreſent paſt and future facts; their memories are fallacious; their diſcourſe incoherent; their affections and actions diſproportionate to the value of the things deſired and purſued; and the connecting conſciouſneſs is in them as yet imperfect. But all this follows naturally from the obſervations made above concerning the methods in which we learn to remember and relate paſt facts, to judge of future ones, to reaſon, and to expreſs ourſelves ſuitably to each occaſion; alſo in which our hopes and fears are made to depend upon ſymbols. No particular account is therefore required for theſe phænomena; they are ſtrictly natural; and many of the chief reaſons for the imperfection of the memory and judgment in children occurring perpetually, and being very obvious, it is not uſually ſuppoſed, that any particular account is required. However, if an adult ſhould become ſubject to a like erroneouſneſs, it would evidently be one ſpecies of madneſs; as fatuity or idiotiſm is. Here the brain labours under ſuch an original diſorder, as either not to receive a diſpoſition to the miniature vibrations in which ideas conſiſt, and whence voluntary motions are derived, but with great difficulty; or, if it receives ſuch diſpoſitions readily, they have not the uſual permanency; in both which caſes it is evident, that the memory, with all the faculties thereon depending, muſt continue in an imperfect ſtate, ſuch as is obſerved in idiots. The want of the connecting conſciouſneſs in children and idiots, and indeed in maniacs of various kinds, excites our pity in a peculiar manner, this connecting conſciouſneſs being eſteemed a principal ſource and requiſite of happineſs. Their helpleſſneſs, and the dangers to which they are expoſed without foreſeeing them, contribute alſo to enhance our compaſſion.

OF DOTAGE.

The dotage of old perſons is oftentimes ſomething more than a mere decay of memory. For they miſtake things preſent for others, and their diſcourſe is often foreign to the objects that are preſented to them. However, the imperfection of their memories in reſpect of impreſſions but juſt made, or at ſhort intervals of paſt time, is one principal ſource of their miſtakes. One may ſuppoſe here, that the parts of the brain, in which the miniature vibrations belonging to ideas have taken place, are decayed in a peculiar manner, perhaps from too great uſe, while the parts appropriated to the natural, vital, and animal motions, remain tolerably perfect. The ſinuſes of the

brain are probably conſiderably diſtended in theſe caſes, and the brain itſelf in a languiſhing ſtate; for there ſeems to be a conſiderable reſemblance between the inconſiſtencies of ſome kinds of dotage, and thoſe of dreams. Beſides which it may be obſerved, that in dotage the perſon is often ſluggiſh and lethargic; and that as a defect of the nutritive faculty in the brain will permit the ſinuſes to be more eaſily diſtended, ſo a diſtention of the ſinuſes, from this or any other cauſe, may impede the due nutrition of the brain. We ſee that, in old perſons, all the parts, even the bones themſelves, waſte, and grow leſs. Why may not this happen to the brain, the origin of all, and ariſe from an obſtruction of the infiniteſimal veſſels of the nervous ſyſtem, this obſtruction cauſing ſuch a degree of opacity, as greatly to abate, or even to deſtroy the powers of aſſociation and memory? At the ſame time vibrations, foreign to the preſent objects, may be excited from cauſes reſiding in the brain, ſtomach, &c. juſt as in ſleep.

OF DRUNKENNESS.

The common and immediate effect of wine is to diſpoſe to joy, *i. e.* to introduce ſuch kinds and degrees of vibrations into the whole nervous ſyſtem, or into the ſeparate parts thereof, as are attended with a moderate continued pleaſure. This it ſeems to do chiefly by impreſſing agreeable ſenſations upon the ſtomach and bowels, which are thence propagated into the brain, continue there, and alſo call up the ſeveral aſſociated pleaſures that have been formed from pleaſant impreſſions made upon the alimentary duct, or even upon any of the external ſenſes. But wine has alſo probably a conſiderable effect of the ſame kind, after it is abſorbed by the veins and lacteals, viz. by the impreſſions which it makes on the ſolids, conſidered as productions of the nerves, while it circulates with the fluids in an unaſſimilated ſtate, in the ſame manner, as has been already obſerved of opium; which reſembles wine in this reſpect alſo, that it produces one ſpecies of temporary madneſs. And we may ſuppoſe, that analogous obſervations hold with regard to all the medicinal and poiſonous bodies, which are found to produce conſiderable diſorders in the mind; their greateſt and moſt immediate effect ariſes from the impreſſions made on the ſtomach, and the diſorderly vibrations propagated thence into the brain; and yet it ſeems probable, that ſuch particles as are abſorbed, produce a ſimilar effect in circulating with the blood.

Wine, after it is abſorbed, muſt rarefy the blood, and conſequently diſtend the veins and ſinuſes, ſo as to make them compreſs the medullary ſubſtance, and the nerves themſelves, both in their origin and progreſs; it muſt therefore diſpoſe to ſome degree of a palſy of the ſenſations and motions; to which there will be a farther diſpoſition from the great exhauſtion of the nervous capillaments, and medullary ſubſtance, which a continued ſtate of gaiety and mirth, with the various expreſſions of it, has occaſioned.

It

It is moreover to be noted, that the pleaſant vibrations producing this gaiety, by riſing higher and higher perpetually, as more wine is taken into the ſtomach and blood veſſels, come at laſt to border upon, and even to paſs into, the diſagreeable vibrations belonging to the paſſions of anger, jealouſy, envy, &c. more eſpecially if any of the mental cauſes of theſe be preſented at the ſame time.

Now it ſeems, that, from a compariſon of theſe and ſuch like things with each other, and with what is delivered in other parts of theſe papers, the peculiar temporary madneſs of drunken perſons might receive a general explanation. Particularly it ſeems natural to expect, that they ſhould at firſt be much diſpoſed to mirth and laughter, with a mixture of ſmall inconſiſtencies and abſurdities; that theſe laſt ſhould increaſe from the vivid trains which force themſelves upon the brain, in oppoſition to the preſent reality; that they ſhould loſe the command and ſtability of the voluntary motions from the prevalence of confuſed vibrations in the brain, ſo that thoſe appropriated to voluntary motion cannot deſcend regularly as uſual; but that they ſhould ſtagger, and ſee double: that quarrels and contentions ſhould ariſe after ſome time; and all end at laſt in a temporary apoplexy. And it is very obſervable, that the free uſe of fermented liquors diſpoſes to paſſionateneſs, to diſtempers of the head, to melancholy, and to downright madneſs; all which things have alſo great connections with each other.

The ſickneſs and head-ach which drunkenneſs occaſions the ſucceeding morning, ſeem to ariſe, the firſt from the immediate impreſſions made on the nerves of the ſtomach; the ſecond from the peculiar ſympathy which the parts of the head, external as well as internal, have with the brain, the part principally affected in drunkenneſs, by deriving their nerves immediately from it.

OF DELIRIUMS.

I come next to conſider the deliriums which ſometimes attend diſtempers, eſpecially acute ones. In theſe a diſagreeable ſtate is introduced into the nervous ſyſtem by the bodily diſorder, which checks the riſe of pleaſant aſſociations, and gives force and quickneſs to diſguſtful ones; and which conſequently would of itſelf alone, if ſufficient in degree, vitiate and diſtort all the reaſonings of the ſick perſon. But, beſides this, it ſeems, that, in the deliriums attending diſtempers, a vivid train of viſible images forces itſelf upon the patient's eye; and that either from a diſorder in the nerves and blood veſſels of the eye itſelf, or from one in the brain, or one in the alimentary duct, or, which is moſt probable, from a concurrence of all theſe. It ſeems alſo, that the wild diſcourſe of delirious perſons is accommodated to this train in ſome imperfect manner; and that it becomes ſo wild, partly from the incoherence of the parts of this train, partly from its not expreſſing even this incoherent train adequately, but deviating into ſuch phraſes as the vibrations excited by the diſtemper in the parts of the brain correſponding to the auditory nerves, or in parts ſtill more internal, and conſequently the

the ſeats of ideas purely intellectual, produce by their aſſociated influence over the organs of ſpeech.

That delirious perſons have ſuch trains forced upon the eye from internal cauſes, appears probable from hence, that when they firſt begin to be delirious, and talk wildly, it is generally at ſuch times only as they are in the dark, ſo as to have all viſible objects excluded; for, upon bringing a candle to them, and preſenting common objects, they recover themſelves, and talk rationally, till the candle be removed again. For hence we may conclude, that the real objects overpower the viſible train from internal cauſes, while the delirium is in its infancy; and that the patient relapſes, as ſoon as he is ſhut up in the dark, becauſe the viſible train from internal cauſes overpowers that which would riſe up, was the perſon's nervous ſyſtem in a natural ſtate, according to the uſual courſe of aſſociation, and the recurrent recollection of the place and circumſtances in which he is ſituated. By degrees the viſible train, from internal cauſes, grows ſo vivid, by the increaſe of the diſtemper, as even to overpower the impreſſions from real objects, at leaſt frequently, and in a great degree, and ſo as to intermix itſelf with them, and to make an inconſiſtency in the words and actions; and thus the patient becomes quite delirious.

Perſons inclining to be delirious in diſtempers are moſt apt to be ſo in going to ſleep, and in waking from ſleep; in which circumſtances the viſible trains are more vivid, than when we are quite awake, as has been obſerved above.

It caſts alſo ſome light upon this ſubject, that tea and coffee will ſometimes occaſion ſuch trains; and that they ariſe in our firſt attempts to ſleep after theſe liquors.

As death approaches, the deliriums attending diſtempers abound with far more incoherencies and inconſiſtencies, than any other ſpecies of alienations of the mind; which may eaſily be conceived to be the natural reſult of the entire confuſion and diſorder which then take place in the nervous ſyſtem. However, there are ſome caſes of death, where the nervous ſyſtem continues free from this confuſion to the laſt, as far as the by-ſtanders can judge.

OF THE FREQUENT RECURRENCY OF THE SAME IDEAS.

When a perſon applies himſelf to any particular ſtudy, ſo as to fix his attention deeply on the ideas and terms belonging to it, and to be very little converſant in thoſe of other branches of knowledge, it is commonly obſerved, that he becomes narrow-minded, ſtrongly perſuaded of the truth and value of many things in his own particular ſtudy, which others think doubtful or falſe, or of little importance, and after ſome time ſubject to low ſpirits, and the hypochondriacal diſtemper. Now all this follows from obſervations already made. The perpetual recurrency of particular ideas and terms makes the vibrations belonging thereto become more than ordinarily vivid, converts feeble aſſociations into ſtrong ones, and enhances the ſecondary ideas of dignity and eſteem,

eſteem, which adhere to them, at the ſame time that all theſe things are diminiſhed in reſpect of other ideas and terms, that are kept out of view; and which, if they were to recur in due proportion, would oppoſe and correct many aſſociations in the particular ſtudy, which are made not according to the reality of things, and keep down our exorbitant opinions of its importance. The ſame perpetual recurrency of vibrations, affecting one and the ſame part of the brain, in nearly one and the ſame manner, muſt irritate it at laſt, ſo as to enter the limits of pain, and approach to the ſtates peculiar to fear, anxiety, deſpondency, peeviſhneſs, jealouſy, and the reſt of the tribe of hypochondriacal paſſions.

Sleep, which preſents ideas at hazard, as one may ſay, and with little regard to prior aſſociations, ſeems to be of the greateſt uſe in keeping off the hypochondriacal diſtemper in ſuch perſons: however, without a change of ſtudies, this, with great narrow-mindedneſs, will probably come at laſt.

It follows from the ſame method of reaſoning, that ſince the concerns of religion are infinite, ſo that we can never over-rate them, we ought to make the ideas, motives, and affections, of this kind, recur as often as poſſible. And if this be done in a truly catholic ſpirit, with all that variety of actions which our duty to God, our neighbour, and ourſelves, requires, there will be no danger of introducing either narrow-mindedneſs or hypochondriaciſm. And it ought to be eſteemed the ſame kind and degree of alienation of mind to undervalue a thing of great importance, as to overvalue one of ſmall.

OF VIOLENT PASSIONS.

Perſons that are under the influence of ſtrong paſſions, ſuch as anger, fear, ambition, diſappointment, have the vibrations attending the principal ideas ſo much increaſed, that theſe ideas cling together, *i. e.* are aſſociated in an unnatural manner; at the ſame time that the eagerneſs and violence of the paſſion prevent the formation of ſuch aſſociations, or obſcure them, if already formed, as are requiſite for the right apprehenſion of the paſt and future facts, which are the objects of this paſſion. Violent paſſions muſt therefore diſorder the underſtanding and judgment, while they laſt; and if the ſame paſſion returns frequently, it may have ſo great an effect upon the aſſociations, as that the intervention of foreign ideas ſhall not be able to ſet things to rights, and break the unnatural bond. The ſame increaſe of vibrations makes all the principal ideas appear to affect *ſelf*, with the peculiar intereſting concern ſuppoſed to flow from perſonal identity; ſo that theſe vibrations exert a reflected influence upon themſelves by this means. And thus it appears, that all violent paſſions muſt be temporary madneſſes, and all habits of them permanent ones, agreeably to the judgment of the wiſe and good in theſe things. It appears alſo, that violent fits of paſſion, and frequent recurrencies of them, muſt, from the nature of the body, often tranſport perſons, ſo

that

that they ſhall not be able to recover themſelves, but fall within the limits of the diſtemper called madneſs emphatically.

OF MELANCHOLY.

The next ſpecies of alienations of the mind is melancholy. Vapours, hypochondriacal and hyſterical diſorders, are comprehended under this claſs. The cauſes of it are ſelf-indulgence in eating and drinking, and particularly in fermented liquors, want of due bodily labour, injuries done to the brain by fevers, concuſſions, &c. too much application of the mind, eſpecially to the ſame objects and ideas, violent and long-continued paſſions, profuſe evacuations, and an hereditary diſpoſition; which laſt we may ſuppoſe to conſiſt chiefly in an undue make of the brain.

In women the uneaſy ſtates of the *uterus* are propagated to the brain, both immediately and mediately, *i. e.* by firſt affecting the ſtomach, and thence the brain. In men the original diſorder often begins, and continues for a long time, chiefly in the organs of digeſtion.

The *cauſa proxima* of melancholy is an irritability of the medullary ſubſtance of the brain, diſpoſing it upon ſlight occaſions to ſuch vibrations as enter the limits of pain; and particularly to ſuch kinds and degrees, as belong to the uneaſy paſſions of fear, ſorrow, anger, jealouſy, &c. And as theſe vibrations, when the paſſions are not in great exceſs, do not much tranſgreſs the limits of pleaſure, it will often happen that hypochondriac and hyſteric perſons ſhall be apt to be tranſported with joy from trifling cauſes, and be, at times, diſpoſed to mirth and laughter. They are alſo very fickle and changeable, as having their deſires, hopes, and fears, increaſed far beyond their natural magnitude, when they happen to fall in with ſuch a ſtate of brain as favours them.

It often happens to theſe perſons to have very abſurd deſires, hopes, and fears; and yet, at the ſame time, to know them to be abſurd; and, in conſequence thereof, to reſiſt them. While they do this, we may reckon the diſtemper within the bounds of melancholy; but when they endeavour to gratify very abſurd deſires, or are permanently perſuaded of the reality of very groundleſs hopes and fears, and eſpecially if they loſe the connecting conſciouſneſs in any great degree, and violate the rules of decency and virtue (the aſſociations of this kind being overpowered, as it were, in the ſame manner as they are ſometimes in dreams), we may reckon the diſtemper to have paſſed into madneſs, ſtrictly ſo called; of which I now come to ſpeak in a general brief way.

OF MADNESS.

The cauſes of madneſs are of two kinds, bodily and mental. That which ariſes from bodily cauſes is nearly related to drunkenneſs, and to the deliriums attending diſtempers. That from mental cauſes is of the ſame kind with temporary alienations of the

the mind during violent paſſions, and with the prejudices and opinionativeneſs, which much application to one ſet of ideas only occaſions.

We may thus diſtinguiſh the cauſes for the more eaſy conception and analyſis of the ſubject; but, in fact, they are both united for the moſt part. The bodily cauſe lays hold of that paſſion or affection, which is moſt diſproportionate; and the mental cauſe, when that is primary, generally waits till ſome bodily diſtemper gives it full ſcope to exert itſelf. Agreeably to this, the prevention and cure of all kinds of madneſs require an attention both to the body and mind; which coincides in a particular manner with the general doctrine of theſe papers.

It is obſerved, that mad perſons often ſpeak rationally and conſiſtently upon the ſubjects that occur, provided that ſingle one which moſt affects them, be kept out of view. And the reaſon of this may be, that whether they firſt became mad, becauſe a particular, original, mental uneaſineſs falls in with an accidental, bodily diſorder; or becauſe an original, bodily diſorder falls in with an accidental mental one; it muſt follow, that a particular ſet of ideas ſhall be extremely magnified, and, conſequently, an unnatural aſſociation of fameneſs or repugnancy between them generated, all other ideas and aſſociations remaining nearly the ſame. Thus, ſuppoſe a perſon, whoſe nervous ſyſtem is diſordered, to turn his thoughts accidentally to ſome barely poſſible good or evil. If the nervous diſorder falls in with this, it increaſes the vibrations belonging to its idea ſo much, as to give it a reality, a connection with *ſelf*. For we diſtinguiſh the recollection and anticipation of things relating to ourſelves, from thoſe of things relating to other perſons, chiefly by the difference of ſtrength in the vibrations, and in their coaleſcences with each other. When one falſe poſition of this kind is admitted, it begets more of courſe, the ſame bodily and mental cauſes alſo continuing; but then this proceſs ſtops after a certain number of falſe poſitions are adopted from their mutual inconſiſtency (unleſs the whole nervous ſyſtem be deranged); and it is often confined to a certain kind, as the iraſcible, the terrifying, &c.

The memory is often much impaired in madneſs, which is both a ſign of the greatneſs of the bodily diſorder, and a hindrance to mental rectification; and therefore a bad prognoſtic. If an oppoſite ſtate of body and mind can be introduced early, before the unnatural aſſociations are too much cemented, the madneſs is cured; if otherwiſe, it will remain, though both the bodily and mental cauſe ſhould be at leaſt removed.

Inquiries after the philoſopher's ſtone, the longitude, &c. to which men are prompted by ſtrong ambitious, or covetous deſires, are often both cauſe and effect, in reſpect of madneſs. Exceſſive fits of anger and fear are alſo found often to hurry perſons into madneſs.

In diſſections after madneſs the brain is often found dry, and the blood veſſels much diſtended; which are arguments, that violent vibrations took place in the internal parts of the brain, the peculiar reſidence of ideas and paſſions; and that it was much compreſſed, ſo as to obſtruct the natural courſe of aſſociation.

As in mad perſons the vibrations in the internal parts of the brain are preternaturally increaſed, ſo they are defective in the external organs, in the glands, &c. Hence, maniacs eat little, are coſtive, make little water, and take ſcarce any notice of external impreſſions. The violence of the ideas and paſſions may give them great muſcular ſtrength upon particular occaſions, when the violent vibrations deſcend from the internal parts of the brain into the muſcles, according to former aſſociations of theſe with the voluntary motions (the ſame increaſe of vibrations in the internal parts of the brain which hinders the aſcending vibrations of ſenſation, augmenting the deſcending ones of motion). But maniacs are often very ſluggiſh, as well as inſenſible, from the great prevalence of the ideal vibrations; juſt as perſons in a ſtate of deep attention are. An accurate hiſtory of the ſeveral kinds of madneſs from thoſe phyſicians, who are much converſant with this diſtemper, is greatly wanted, and it would probably receive conſiderable light from this theory.

Religious conſiderations are the beſt preſervative in hereditary or other tendencies to madneſs; as being the only ſure means of reſtraining violent paſſions, at the ſame time that they afford a conſtant indefinite hope, mixed with a filial awe and fear; which things are eminently qualified to keep up a ſteadineſs and ſobriety of mind, and to incite us to ſuch a courſe of action, as adds inceſſantly to the hope, and diminiſhes the fear. However, bodily labour, with a variety of mental occupations, and a conſiderable abſtemiouſneſs in the quantity and quality of diet, ought always to be joined.

SECT. VII.

OF THE INTELLECTUAL FACULTIES OF BRUTES.

PROP. XCIII.

To examine how far the Inferiority of Brutes to Mankind in intellectual Capacities is agreeable to the foregoing Theory.

If the doctrines of vibrations and aſſociation be found ſufficient to ſolve the phænomena of ſenſation, motion, ideas, and affections, in men, it will be reaſonable to ſuppoſe, that they will alſo be ſufficient to ſolve the analogous phænomena in brutes. And, converſely, it ſeems probable, that an endeavour to apply and adapt theſe doctrines to brutes will caſt ſome light and evidence upon them, as they take place in men: and thus the laws of vibrations and aſſociation may be as univerſal in reſpect of the nervous ſyſtems of animals of all kinds, as the law of circulation is with reſpect to the ſyſtem of the heart and blood veſſels; and their powers of ſenſation and motion be the reſult of theſe three laws, viz. circulation, vibrations, and aſſociation, taken together. Theſe three laws may alſo be moſt cloſely united in their ultimate cauſe and ſource, and flow in all their varieties from very ſimple principles. At leaſt this is the tenor of nature in many ſimilar caſes.

As the whole brute creation differs much from, and is far inferior to man, in intellectual capacities; ſo the ſeveral kinds of animals differ much from each other in the ſame reſpect. But I ſhall, in this ſection, confine myſelf chiefly to the conſideration of the firſt difference, viz. of that between mankind and the brute creation in general; and endeavour to aſſign ſuch reaſons for it, as flow from, or are agreeable to, the theory of theſe papers. We may ſuppoſe then, that brutes in general differ from, and are inferior to man, in intellectual capacities, on the following accounts:

Firſt, The ſmall proportional ſize of their brains.

Secondly, The imperfection of the matter of their brains, whereby it is leſs fitted for retaining a large number of miniatures, and combining them by aſſociation, than man's.

Thirdly, Their want of words, and ſuch like ſymbols.

Fourthly, The inſtinctive powers which they bring into the world with them, or which riſe up from internal cauſes, as they advance towards adult age.

Fifthly, The difference between the external impreſſions made on the brute creation, and on mankind.

Firſt, then, As the brains of brutes are leſs in proportion to the bulk of the other parts, than thoſe of men; and as the internal parts of the brain appear from theſe papers to be the peculiar ſeat of ideas, and intellectual affections; it ſeems very natural to expect, that brutes ſhould have a far leſs variety of theſe than men. The parts which intervene between the optic and auditory nerves, being proportionably leſs, for inſtance, in brutes, will not admit of ſo great a variety of aſſociations between the ſeveral ideas of theſe ſenſes, becauſe the optic and auditory nerves cannot have ſo great a variety of connections and communications with each other.

To this it is to be added, that the internal parts belonging to the olfactory nerves, and, perhaps, thoſe belonging to the nerves of taſte, take up, probably, a greater proportional part of the medullary ſubſtance of the brain than in us, ſince moſt brutes have the ſenſe of ſmell, and perhaps that of taſte in greater perfection than we have. There will therefore be ſtill leſs room left for the variety of intercourſes between the optic and auditory nerves in the medullary ſubſtance of the brain. And yet it is evident, from obvious obſervations, as well as from the whole tenor of theſe papers, that the eye and ear, with their aſſociations, are the chief ſources of intellect; and that the greateſt part of the pleaſures and pains of human life ariſe from viſible and audible impreſſions, which in themſelves afford neither pleaſure nor pain.

Thus it is natural to expect, that the happineſs and miſery of brutes ſhould depend principally, and in a direct manner, on the impreſſions made upon their groſs ſenſes, whilſt that of mankind ariſes, in great meaſure, from long trains of aſſociated ideas and emotions, which enter chiefly by the eye and ear. And it ſeems to me a very ſtriking coincidence, that mankind ſhould at the ſame time exceed the brute creation in the variety of their ideas, and in the proportional largeneſs of that part of the body which is the peculiar ſeat of theſe.

The ſame proportional largeneſs may, as it were, detain the vibrations which aſcend from external impreſſions up to the brain, and ſo prevent that freedom of deſcent into the muſcular ſyſtem which takes place in brutes; and which diſpoſes them to move more early, and more readily, in conſequence of direct impreſſions, than men, at the ſame time that they have a far leſs command, in reſpect of voluntary motion. But this difference depends, in great meaſure, upon the conſiderations that follow, as will be ſeen.

Secondly, That the very conſtitution and texture of the nervous ſyſtem, in its infiniteſimal veſſels, ſhould differ in brutes from that of men, appears highly reaſonable to be expected. And ſince the lives of brutes fall, in general, far ſhort of that of man, alſo ſince the quadrupeds (which reſemble man more than other animals) are far more hairy, and fowls have feathers, it appears probable, that the texture of the nervous ſyſtem in brutes ſhould tend more to calloſity, and fixedneſs, in its diſpoſitions to vibrate,

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than in men. The brains of young brute animals will therefore be ſooner able to retain miniatures than thoſe of children, as tending more to firmneſs and fixedneſs in their ultimate texture and conſtitution; at the ſame time that this texture will unfit them for receiving a variety. To which, if we add the ſhortneſs of their lives, and conſequently of their aſcent to the ſummit of adult age; which aſcent is the proper time for receiving inſtruction; it is eaſy to ſee, that on this double account, as well as that mentioned under the foregoing head, they muſt fall far ſhort of mankind in the number of their intellectual ideas, pleaſures, and pains.

It follows from the ſame method of reaſoning, that the few diſpoſitions to miniature vibrations, which are generated in brutes, may be as perfect in their kinds; and conſequently the memory, and ſhort, direct ratiocination depending thereon, as perfect alſo, as the analogous things in man. Nay, they may be more ſo, if the particular animal under conſideration excel man in the acuteneſs and preciſion of thoſe ſenſes, whoſe ideas make a principal part of this ratiocination. Now it appears, that moſt quadrupeds exceed us in the acuteneſs of the ſmell, and in the power of diſtinguiſhing a variety of ſmells. And many birds ſeem to be able to ſee diſtinctly at much greater diſtances. However, our auditory nerves, and the regions of the brain correſponding thereto, appear far better fitted for retaining a variety of miniatures of articulate ſounds; and our optic nerves, and the regions of the brain correſponding thereto, for retaining a variety of miniatures of ſhapes and colours. And, next to man, quadrupeds, and particularly monkeys, dogs, and horſes, ſeem to have theſe regions of the brain in the greateſt perfection.

If the texture of the brains of animals here conſidered be alſo, in part, the cauſe of their being covered with hair, wool, briſtles, feathers, &c. it may, from this its effect, diſpoſe them to greater ſtrength and expertneſs in their motions, and that more early, than happens to men. For all theſe are *electrics per ſe*, and conſequently may firſt have a conſiderable degree of this power communicated to them by the heat of the circulating blood; and then, not being able to tranſmit it to the air, which is alſo an *electric per ſe*, may reflect it upon the muſcles, and thereby diſpoſe them to ſomewhat greater activity. It is well known, that the manes of horſes, and backs of cats, are made electric by their vital powers. It may farther be obſerved, that the hoofs of animals are *electrics per ſe*, and that the feathers of water-fowl repel the water; whence the electric virtue may be kept from running off to the earth and water reſpectively. However, we ought not to lay much ſtreſs upon this electric virtue in the muſcular fibres of brutes (if there be any ſuch virtue) in order to account for the ſuperior and more early power of animals, in reſpect of ordinary motions. The texture of the fibres of the muſcles, and that of the brain, muſt have the principal ſhare in this effect.

It is alſo to be conſidered, that as they have far fewer voluntary motions, on account of having far fewer ideas, ſo they may arrive at a greater perfection in the automatic ones,

ones, and the ſmall number of voluntary ones which they do perform, on this account. Man is diſtracted, as it were, by the endleſs variety of his ideas, and voluntary motions: and it is notorious, that none beſides extraordinary geniuſes arrive at perfection in any conſiderable variety; whereas a perſon of ſmall natural capacity, by ſelecting ſome one branch of ſcience, or manual art, and applying himſelf to this alone, may perform wonders. Nay, there have been inſtances of perſons not much removed from idiotiſm, who could perform the arithmetical operations by memory, far better than men of good underſtandings, well verſed in thoſe operations; which is a thing ſomewhat analogous to the extraordinary ſagacity in inveſtigating and concluding, which brutes diſcover, in reſpect of ſome particular things.

Thirdly, The next circumſtance, which renders brutes far inferior to man in intellectual acquiſitions, is their want of ſymbols, ſuch as words, whereby to denote objects, ſenſations, ideas, and combinations of ideas. This may appear from ſeveral conſiderations. Thoſe men who happen to be born in a country where the mother-tongue is copious and preciſe, who apply themſelves to the ſtudy of their mother-tongue, who, beſides this, learn one or more foreign tongues, &c. get, by theſe means, a conſiderable ſhare of the knowledge of things themſelves, learn to remark, prove, diſprove, and invent, and, *cæteris paribus*, make a quicker progreſs in mental accompliſhments, than others. On the contrary, the mental improvement of perſons born deaf is extremely retarded by their incapacity of having things ſuggeſted by articulate ſounds, or the pictures of theſe, and alſo by their not being able to ſolve the inverſe problem, and denote their own trains of thought by adequate ſymbols. Words are the ſame kind of helps in the inveſtigation of qualities, as algebraical ſymbols and methods are in reſpect of quantity, as has been already remarked. Perſons born deaf cannot therefore make any great progreſs in the knowledge of cauſes and effects, in abſtracted and philoſophical matters; but muſt approach, as it were, to the ſtate of the brute creation. On the contrary, brute creatures, that have much intercourſe with mankind, ſuch as dogs and horſes, by learning the uſe of words and ſymbols of other kinds, become more ſagacious than they would otherwiſe be. And if particular pains be taken with them, their docility and ſagacity, by means of ſymbols, ſometimes ariſe to a very ſurprizing degree.

Parrots might be thought, according to this view of the preſent ſubject, to have ſome particular advantages over quadrupeds, by their being able to pronounce words; ſince, as has been obſerved before, the attempts which children make to apply words to things, aſſiſt them very much in underſtanding the applications made by others. But parrots do not ſeem to ſpeak from any particular acuteneſs and preciſion in the auditory nerves, and parts of the brain correſponding thereto, having no cochlea, but from the perfection and pliableneſs of their vocal organs, in which they exceed other birds; as birds in general do beaſts. And it is reaſonable to think, that quadrupeds, which reſemble man ſo nearly in the make of the organ of hearing, as well

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as in other parts, and which alſo have naturally much more intercourſe with man (being fellow-inhabitants of the earth) than birds (which inhabit the air), ſhould likewiſe have a greater faculty of diſtinguiſhing the articulate ſounds of man's voice, retaining their miniatures, and applying them to the things ſignified, than birds; which ſeems evidently to be the caſe. Sagacious quadrupeds may therefore be ſaid to reſemble dumb perſons arrived at adult age, who are poſſeſſed of much knowledge, which yet they cannot expreſs, except by geſtures, by dumb ſhew: whereas parrots, as before remarked, reſemble children; theſe having many words with very little knowledge annexed to them.

Apes and monkeys, of the ſeveral kinds, ſeem to approach neareſt to man, in the general faculty of reaſoning, and drawing concluſions; but in particular things, eſpecially where inſtinct prevails, ſome other brutes far exceed them; as indeed ſuch brutes do man himſelf in a few, on account of the peculiar acuteneſs of the ſenſe of ſmell, and the ſame inſtinct.

I reckon the want of articulate ſounds to be one of the reaſons why brutes are ſo much inferior to men in intellectual capacities; becauſe it appears, from the foregoing and other conſiderations of the ſame kind, that it is ſo. But this is no imperfection upon the whole. The proportional ſmallneſs of their brains, the texture of theſe, their inſtincts, and their external circumſtances, are ſuch, that they do not want language much; that they could make no great uſe of it, had they proper organs for ſpeaking; and that they would probably be loſers, upon the whole, by having it. The efficient and final cauſes are here ſuited to each other, as in all other caſes; ſo that no circumſtance can be changed for the better, *cæteris manentibus*.

Fourthly, Let us come to the inſtinctive powers of animals. Theſe are a point of a very difficult conſideration. They are evidently not the reſult of external impreſſions by means of the miniatures of theſe, their aſſociations and combinations, in the manner according to which I have endeavoured to ſhew, that the rational faculties of mankind are formed and improved; and yet, in the inſtances to which they extend, they very much reſemble the rational faculties of mankind. Animals, in preparing and providing for themſelves and their young, in future exigencies, proceed in the ſame manner as a perſon of good underſtanding, who foreſaw the event, would do; and this, even though they be a little put out of their way. And in this they much reſemble perſons of narrow capacities and acquiſitions, who yet excel greatly in ſome particular art or ſcience; of which there are many inſtances. Such perſons ſhew great ingenuity in the things to which they are accuſtomed, and in ſome others that border upon them within certain limits, ſo as to ſhew great ingenuity ſtill, though put a little out of their way; but if they be put much out of their way, or queſtioned about things that are entirely foreign to the art or ſcience in which they excel, they are quite loſt and confounded.

Let us ſuppoſe this to be the caſe, and then the inquiry concerning inſtinct in brutes will be reduced to this, viz. By what means the nervous ſyſtems of brutes are made to put on diſpoſitions to miniature vibrations, analogous to thoſe which take place in the perſons here conſidered; and which are in them the reſult of foregoing impreſſions, if we admit the theory of theſe papers. Now, to me, there ſeems no difficulty in aſcribing this to the mere bodily make in brutes, ſo that miniature vibrations, ſuch as anſwer in us to ideas, and voluntary motions, ſhall ſpring up in them at certain ages and ſeaſons of the year, and mix themſelves with impreſſions, and acquired ideas, ſo as to be, in general, ſuitable to them; and, in general, to direct the brute creatures in what manner to provide for, and preſerve themſelves and their young.

This would be a kind of inſpiration to brutes, mixing itſelf with, and helping out, that part of their faculties which correſponds to reaſon in us, and which is extremely imperfect in them. Only this inſpiration might be called natural, as proceeding from the ſame ſtated laws of matter and motion as the other phænomena of nature; whereas the inſpiration of the ſacred writers appears to be of a much higher ſource, ſo as to be termed ſupernatural properly, in contradiſtinction to all knowledge reſulting from the common laws of nature. And yet it may reſult from ſome higher laws of nature. For ſacred inſpiration would loſe nothing of its authority, though it ſhould appear to be within ſuch laws, as by their fixedneſs might be termed nature: and indeed all differences in theſe things, after the facts are once ſettled, will be found, upon due inquiry, to be merely verbal.

Fifthly, The laſt cauſe here aſſigned for the great difference and inferiority of brutes, in reſpect of intellectual capacities, is the difference in the events and incidents of their lives. They converſe with far fewer objects than men, and both the objects and pleaſures of feeling, taſte, and ſmell, have a far greater proportional ſhare in the ſum total, than in us. Now, as in men, the common events and incidents of life give a turn to the whole frame of mind, and either enlarge the intellectual capacities, if they be various, or narrow them, if the ſame occurrences return again and again perpetually; ſo, independently of all the foregoing conſiderations, the ſameneſs, paucity, and relation to mere ſenſe, of the impreſſions made on brutes, muſt infer a great narrowneſs of underſtanding.

From all theſe things put together, it appears very conceivable, how the mental faculties of brutes ſhould, conſiſtently with the doctrines of vibrations and aſſociation, be what they are, in fact, found to be. And though I ſuppoſe with *Deſcartes*, that all their motions are conducted by mere mechaniſm; yet I do not ſuppoſe them to be deſtitute of perception, but that they have this in a manner analogous to that which takes place in us; and that it is ſubjected to the ſame mechanical laws as the motions. Whether the ideal vibrations, which take place in the medullary ſubſtances of their brains, be the reſult of former impreſſions, or the mere offſpring of their vital and natural powers, agreeably to the foregoing hypotheſis concerning inſtinct, or the compound effect of both, which we may preſume to be generally the caſe, I always

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ſuppoſe, that correſponding feelings, and affections of mind, attend upon them, juſt as in us. And the brute creatures prove their near relation to us, not only by the general reſemblance of the body, but by that of the mind alſo; inaſmuch as many of them have moſt of the eminent paſſions in ſome imperfect degree, and as there is, perhaps, no paſſion belonging to human nature, which may not be found in ſome brute creature in a conſiderable degree.

The brutes ſeem ſcarce ever able to arrive at any proper ſelf-intereſt of the abſtract and refined kind, at conſciouſneſs, ſo as to compare and connect themſelves with themſelves in different ſituations, or at any idea and adoration of God; and this from the narrowneſs of their capacities and opportunities in general, but particularly from their want of ſymbols.

The ſame want of ſymbols muſt make all their reaſonings and affections, which reſemble ours in the general, be, however, conſiderably different in particulars, and far leſs complex; but it is ſufficient to entitle them to the names of ſagacity, cunning, fear, love, &c, by which ours are denoted, that the trains of ideal vibrations in their brains bear a general reſemblance to the correſponding ones in ours, ſpring from like cauſes, and produce like effects.

The power of aſſociation over brutes is very evident in all the tricks which they are taught; and the whole nature of each brute, which has been brought up amongſt others of the ſame ſpecies, is a compound of inſtinct, his own obſervation and experience, and imitation of thoſe of his own ſpecies. Inſtinct ſeems to have exerted its whole influence when the creature is arrived at maturity, and has brought up young; ſo that nothing new can be expected from it afterwards. But their intellectual acquiſitions from obſervation and imitation continue; whence old brutes are far more cunning, and can act far better, *pro re nata*, than young ones.

It ought always to be remembered in ſpeaking on this ſubject, that brutes have more reaſon than they can ſhew, from their want of words, from our inattention, and from our ignorance of the import of thoſe ſymbols, which they do uſe in giving intimations to one another, and to us.

We ſeem to be in the place of God to them, to be his vicegerents, and empowered to receive homage from them in his name. And we are obliged by the ſame tenure to be their guardians and benefactors.

CHAP IV.

Of the SIX CLASSES *of* INTELLECTUAL PLEASURES *and* PAINS.

I HAVE now diſpatched the hiſtory and analyſis of the ſenſations, motions, and ideas; and endeavoured to ſuit them, as well as I could, to the principles laid down in the firſt chapter. My next buſineſs, is to inquire particularly into the riſe and gradual increaſe of the pleaſures and pains of imagination, ambition, ſelf-intereſt, ſympathy, theopathy, and the moral ſenſe; and to ſee how far theſe can be deduced, in the particular forms and degrees that are found to prevail, in fact, from the ſenſible pleaſures and pains, by means of the general law of aſſociation. As to that of vibrations, it ſeems of little importance in this part of the work, whether it be adopted or not. If any other law can be made the foundation of aſſociation, or conſiſtent with it, it may alſo be made conſiſtent with the analyſis of the intellectual pleaſures and pains, which I ſhall here give. I do not think there is any other law that can; on the contrary, their ſeems to be ſo peculiar an aptneſs in the doctrine of vibrations, for explaining many of the phænomena of the paſſions, as almoſt excludes all others.

Now it will be a ſufficient proof, that all the intellectual pleaſures and pains are deducible ultimately from the ſenſible ones, if we can ſhew of each intellectual pleaſure and pain in particular, that it takes its riſe from other pleaſures and pains, either ſenſible or intellectual. For thus none of the intellectual pleaſures and pains can be original. But the ſenſible pleaſures and pains are evidently originals. They are therefore the only ones, *i. e.* they are the common ſource from whence all the intellectual pleaſures and pains are ultimately derived.

When I ſay, that the intellectual pleaſures *A* and *B* are deducible from one another, I do not mean, that *A* receives back again from *B* that luſtre which it had conferred upon it; for this would be to argue in a circle; but that whereas both *A* and *B* borrow from a variety of ſources, as well as from each other, they may, and indeed muſt, transfer by aſſociation part of the luſtre borrowed from foreign ſources upon each other.

If we admit the power of aſſociation, and can alſo ſhew, that aſſociations, ſufficient in kind and degree, concur, in fact, in the ſeveral inſtances of our intellectual pleaſures and pains, this will, of itſelf, exclude all other cauſes for theſe pleaſures and pains, ſuch as inſtinct for inſtance. If we cannot trace out aſſociations ſufficient in kind and degree, ſtill it will not be neceſſary to have recourſe to other cauſes, becauſe great allowances are to be made for the novelty, complexneſs, and intricacy of the ſubject. However, on the other hand, analogy may perhaps lead us to conclude, that as inſtinct prevails much, and reaſon a little in brutes, ſo inſtinct ought to prevail a little in us. Let the facts ſpeak for themſelves.

SECT.

SECT I.

OF THE PLEASURES AND PAINS OF IMAGINATION.

I BEGIN with the pleaſures and pains of imagination; and ſhall endeavour to derive each ſpecies of them by aſſociation, either from thoſe of ſenſation, ambition, ſelf-intereſt, ſympathy, theopathy, and the moral ſenſe, or from foreign ones of imagination. They may be diſtinguiſhed into the ſeven kinds that follow.

Firſt, The pleaſures ariſing from the beauty of the natural world.

Secondly, Thoſe from the works of art.

Thirdly, From the liberal arts of muſic, painting, and poetry.

Fourthly, From the ſciences.

Fifthly, From the beauty of the perſon.

Sixthly, From wit and humour.

Seventhly, The pains which ariſe from groſs abſurdity, inconſiſtency, or deformity.

PROP. XCIV.

To examine how far the juſt-mentioned Pleaſures and Pains of Imagination are agreeable to the Doctrine of Aſſociation.

Of the PLEASURES ariſing from the BEAUTY of the NATURAL WORLD.

THE pleaſures ariſing from the contemplation of the beauties of the natural world ſeem to admit of the following analyſis.

The pleaſant taſtes, and ſmells, and the fine colours of fruits and flowers, the melody of birds, and the grateful warmth or coolneſs of the air, in the proper ſeaſons, transfer miniatures of theſe pleaſures upon rural ſcenes, which ſtart up inſtantaneouſly ſo mixed with each other, and with ſuch as will be immediately enumerated, as to be ſeparately indiſcernible.

If there be a precipice, a cataract, a mountain of ſnow, &c. in one part of the ſcene, the naſcent ideas of fear and horrour magnify and enliven all the other ideas, and by degrees paſs into pleaſures, by ſuggeſting the ſecurity from pain.

In like manner the grandeur of ſome ſcenes, and the novelty of others, by exciting ſurprize and wonder, *i. e.* by making a great difference in the preceding and ſubſequent ſtates of mind, ſo as to border upon, or even enter the limits of pain, may greatly enhance the pleaſure.

Uniformity and variety in conjunction are alſo principal ſources of the pleaſures of beauty, being made ſo partly by their aſſociation with the beauties of nature; partly by that with the works of art; and with the many conveniences which we receive from the uniformity and variety of the works of nature and art. They muſt therefore transfer part of the luſtre borrowed from the works of art, and from the head of convenience, upon the works of nature.

Poetry and painting are much employed in ſetting forth the beauties of the natural world, at the ſame time that they afford us a high degree of pleaſure from many other ſources. Hence the beauties of nature delight poets and painters, and ſuch as are addicted to the ſtudy of their works, more than others. Part of this effect is indeed owing to the greater attention of ſuch perſons to the other ſources; but this comes to the ſame thing, as far as the general theory of the factitious, aſſociated nature of theſe pleaſures is concerned.

The many ſports and paſtimes, which are peculiar to the country, and whoſe ideas and pleaſures are revived by the view of rural ſcenes, in an evaneſcent ſtate, and ſo mixed together as to be ſeparately indiſcernible, do farther augment the pleaſures ſuggeſted by the beauties of nature.

To theſe we may add, the oppoſition between the offenſiveneſs, dangers, and corruption of populous cities, and the health, tranquillity, and innocence, which the actual view, or the mental contemplation, of rural ſcenes introduces; alſo the pleaſures of ſociality and mirth, which are often found in the greateſt perfection in country retirements, the amorous pleaſures, which have many connections with rural ſcenes, and thoſe which the opinions and encomiums of others beget in us, in this, as in other caſes, by means of the contagiouſneſs obſervable in mental diſpoſitions, as well as bodily ones.

Thoſe perſons who have already formed high ideas of the power, knowledge, and goodneſs of the author of nature, with ſuitable affections, generally feel the exalted pleaſures of devotion upon every view and contemplation of his works, either in an explicit and diſtinct manner, or in a more ſecret and implicit one. Hence, part of the general indeterminate pleaſures, here conſidered, is deducible from the pleaſures of theopathy.

We muſt not omit in this place to remind the reader of a remark made above, viz. that green, which is the middle colour of the ſeven primary ones, and conſequently the moſt agreeable to the organ of ſight, is alſo the general colour of the vegetable kingdom, *i. e.* of external nature.

Theſe may be conſidered as ſome of the principal ſources of the beauties of nature to mankind in general. Inquiſitive and philoſophical perſons have ſome others, ariſing from their peculiar knowledge and ſtudy of natural hiſtory, aſtronomy, and philoſophy, in general. For the profuſion of beauties, uſes, fitneſſes, elegance in minute things, and magnificence in great ones, exceed all bounds of conception, ſurprize, and aſtoniſhment;

niſhment; new ſcenes, and thoſe of unbounded extent, ſeparately conſidered, ever preſenting themſelves to view, the more any one ſtudies and contemplates the works of God.

And, upon the whole, the reader may ſee, that there are ſufficient ſources for all thoſe pleaſures of imagination, which the beauties of nature excite in different perſons; and that the differences which are found in different perſons in this reſpect, are ſufficiently analogous to the differences of their ſituations in life, and of the conſequent aſſociations formed in them.

An attentive perſon may alſo, in viewing or contemplating the beauties of nature, lay hold, as it were, of the remainders and miniatures of many of the particular pleaſures here enumerated, while they recur in a ſeparate ſtate, and before they coaleſce with the general indeterminate aggregate, and thus verify the hiſtory now propoſed.

It is a confirmation of this hiſtory, that an attentive perſon may alſo obſerve great differences in the kind and degree of the reliſh which he has for the beauties of nature in different periods of his life; eſpecially as the kind and degree may be found to agree in the main with this hiſtory.

To the ſame purpoſe we may remark, that theſe pleaſures do not cloy very ſoon, but are of a laſting nature, if compared with the ſenſible ones; ſince this follows naturally from the great variety of their ſources, and the evaneſcent nature of their conſtituent parts.

When a beautiful ſcene is firſt preſented, there is generally great pleaſure from ſurprize, from being ſtruck with objects and circumſtances which we did not expect. This preſently declines; but is abundantly compenſated afterwards by the gradual alternate exaltation of the ſeveral conſtituent parts of the complex pleaſures, which alſo do probably enhance one another. And thus we may take ſeveral reviews of the ſame ſcene, before the pleaſure, which it affords, comes to its *maximum*. After this the pleaſure muſt decline, if we review it often: but if at conſiderable intervals, ſo as that many foreign ſtates of mind intervene, alſo ſo as that new ſources of the pleaſures of this kind be broken up, the pleaſure may recur for many ſucceſſions of nearly the ſame magnitude.

The ſame obſervations hold in reſpect of the pleaſures from the beauties of nature in general, and indeed from all the other ſources, works of art, liberal arts, ſciences, &c. Theſe all ſtrike and ſurprize the young mind at firſt, but require a conſiderable time before they come to their *maximum*; after which ſome or other will always be at its *maximum* for a conſiderable time. However, the pleaſures of imagination in general, as well as each particular ſet and individual, muſt decline at laſt from the nature of our frame. In what manner they ought to decline, ſo as to be conſiſtent with our *ſummum bonum*, by yielding, in due time, to more exalted and pure pleaſures, whoſe compoſition they enter, I will endeavour to ſhew hereafter.

Theſe

Theſe pleaſures are a principal ſource of thoſe which are annexed to the view of uniformity with variety, as above noted, *i. e.* of analogies of various orders; and conſequently are a principal incitement to our tracing out real analogies, and forming artificial ones.

The novel, the grand, and the marvellous, are alſo moſt conſpicuous in the works of nature; and the laſt ſtrikes us particularly in many of the phænomena of nature, by ſeeming to exceed all bounds of credibility, at the ſame time that we are certified by irrefragable evidences of the truth of the facts. The ſatiety which every pleaſure begets in us, after ſome continuance, makes us thirſt perpetually after the grand and novel; and, as it were, graſp at infinity in number and extent; there being a kind of tacit expectation, that the pleaſure will be in proportion to the magnitude and variety of the cauſes, in the ſame manner as we obſerve, in other caſes, the effects to be in ſome degree proportional to their cauſes.

The pleaſures of novelty decline not only in this claſs, but alſo in all the others ſenſible and intellectual, partly from our bodily frame, partly from the intermixture, and conſequent aſſociation of neutral circumſtances (*i. e.* ſuch as afford neither pleaſure nor pain) in their ſucceſſive recurrences.

A diſpoſition to a pleaſurable ſtate is a general attendant upon health, and the integrity of our bodily faculties; and that in ſuch a degree, as that actual pleaſure will ſpring up from moderate incitements, from the tranſient introduction of the aſſociated circumſtances of former pleaſurable ſtates. If the body be indiſpoſed in ſome degree, it is, however, poſſible to force it into a ſtate of pleaſure by the vivid introduction of various and powerful circumſtances; but this unnatural ſtate cannot laſt long; and, if the indiſpoſition to pleaſure be great, it cannot be introduced at all. On the contrary, where the diſpoſition to pleaſure is preternaturally prevalent, as after wine and opium, and in certain morbid caſes, the leaſt hint will excite profuſe joy, leaning chiefly to the pleaſures of imagination, ambition, ſympation, or devotion, according to the circumſtances.

It is eaſy to ſee how the doctrine of vibrations, which appears to be the only one that admits of permanent ſtates of motion, and diſpoſition to motion, in the brain, ſuits theſe laſt remarks in a peculiar manner.

OF THE BEAUTIES OF THE WORKS OF ART.

The works of art, which afford us the pleaſures of beauty, are chiefly buildings, public and private, religious, civil, and military, with their appendages and ornaments, and machines of the ſeveral kinds, from the great ones employed in war, commerce, and public affairs, ſuch as ſhips, military engines, machines for manufacturing metals, &c. down to clocks, watches, and domeſtic furniture. The ſurvey of theſe things, when perfect in their kinds, affords great pleaſures to the curious; and theſe pleaſures increaſe

increaſe for a certain time, by being cultivated and gratified, till at laſt they come to their height, decline, and give way to others, as has been already obſerved of the pleaſures ariſing from the beauties of nature.

The chief ſources of the pleaſures, which the fore-mentioned works of art afford, appear to be the following: the beautiful illuminations from gay colours; the reſemblance which the playthings, that pleaſed us when we were children, bear to them; the great regularity and variety obſervable in them; the grandeur and magnificence of ſome, and the neatneſs and elegance of others, and that eſpecially if they be ſmall; the fitneſs to anſwer uſeful ends; their anſwering a multiplicity of theſe by ſimple means, or by analogous complex ones, not exceeding certain limits in complexneſs; the knowledge conveyed in many caſes; the ſtrong aſſociations with religion, death, war, juſtice, power, riches, titles, high birth, entertainments, mirth, &c. faſhion, with the opinions and encomiums of perſons ſuppoſed to be judges; the vain deſire of having a taſte, and of being thought connoiſſeurs and judges, &c. &c.

In architecture there are certain proportions of breadths, lengths, depths, and entire magnitudes, to each other, which are by ſome ſuppoſed to be naturally beautiful, juſt as the ſimple ratios of 1 to 2, 2 to 3, 3 to 4, &c. in muſic, yield ſounds, which are naturally pleaſant to the ear. But it rather ſeems to me, that œconomical convenience firſt determined the ratios of doors, windows, pillars, &c. in a groſs way; and then that the convenience of the artiſts fixed this determination to ſome few exact ratios, as in the proportion between the lengths and breadths of the pillars of the ſeveral orders. Afterwards theſe proportions became aſſociated ſo often with a variety of beauties in coſtly buildings, that they could not but be thought naturally beautiful at laſt. In merely ornamental parts the beauty of the proportions ſeems to ariſe entirely either from faſhion, or from a ſuppoſed reſemblance to ſomething already fixed as a beautiful proportion. It is eaſy from theſe principles to account for the prevalency of different proportions, and general taſtes, in different ages and countries.

Of the Pleasures *ariſing from* Music, Painting, *and* Poetry.

Let us next conſider the three liberal and ſiſter arts of muſic, painting and poetry.

Of Music.

Now, in reſpect of muſic, it is to be obſerved, that the ſimple ſounds of all uniform ſonorous bodies, and particularly the ſingle notes of the ſeveral muſical inſtruments, alſo all the concords, or notes, whoſe vibrations bear to each other the ſimple ratios of 1 to 2, 2 to 3, 3 to 4, &c. ſounded together, or near to each other, may be conſidered as originally pleaſant to the ear. Diſcords are originally unpleaſant, and therefore, as in other like caſes, may be made uſe of to heighten our pleaſures, by being properly and ſparingly introduced, ſo as to make a ſtrong contraſt. To which if we add the uniformity and variety obſervable in all good muſic, we ſhall have the chief

chief pleaſures affecting children, and young perſons, upon their being firſt accuſtomed to hear muſic.

By degrees the diſcords become leſs and leſs harſh to the ear, and at laſt even pleaſant, at leaſt by their aſſociations with the concords, that go before, or follow them; ſo that more, and alſo more harſh diſcords, are perpetually required to give a reliſh, and keep the ſweetneſs of the concords from cloying. Particular kinds of air and harmony are aſſociated with particular words, affections, and paſſions, and ſo are made to expreſs theſe; beſides which there is often a natural aptitude in the muſic to repreſent the affection, as in quick muſic, and concords, to repreſent mirth. Muſic in general is connected with gaiety, public rejoicings, the amorous pleaſures, riches, high rank, &c. or with battles, ſorrow, death, and religious contemplations. There is an ambition to excel in taſte, in performance, and in compoſition, and a difficulty which enhances the pleaſure, &c. &c. till, by theſe and ſuch like ways, the judgments and taſtes of different perſons, in reſpect of muſic, become as different, as we find them to be in fact.

OF PAINTING.

Our pleaſures from pictures are very nearly related to thoſe of imitation, which, as was obſerved above, take up a conſiderable part of our childhood; and the ſeveral playthings repreſenting men, houſes, horſes, &c. with which children are ſo much delighted, are to be conſidered, both as augmenting and gratifying this taſte in them.

To this it is to be added, that as the ideas of ſight are the moſt vivid of all our ideas, and thoſe which are chiefly laid up in the memory as keys and repoſitories to the reſt, pictures, which are ſomthing intermediate between the real object and the idea, and therefore in caſes of ſufficient likeneſs more vivid than the idea, cannot but pleaſe us by thus gratifying our deſire of raiſing up a complete idea of an abſent object. This an attentive perſon may obſerve in himſelf in viewing pictures.

The ſurprize and contraſt which ariſe in children, upon their ſeeing perſons and objects preſent in their pictures, which yet they know to be abſent by ſtriking the mind with the impoſſible conception of the ſame thing in two places, are probably the ſources of conſiderable pleaſure to *them*.

To theſe cauſes let us add the gay colours, and fine ornaments, which generally go along with pictures; and we ſhall have the chief ſources of the pleaſures which painting affords to young perſons, and to thoſe who have not yet been much affected with the various incidents of life, and their repreſentations, or acquired a taſte and ſkill in theſe things.

For, after this, the pleaſures ariſing from pictures are quite of another kind, being derived from the ſame ſources as thoſe that belong to the ſcenes, affections, and paſſions repreſented, from the poetical deſcriptions of theſe, from the preciſe juſtneſs of the

the imitation, from ambition, faſhion, the extravagant prices of the works of certain maſters, from aſſociation with the villas and cabinets of the noble, the rich, and the curious, &c. &c.

The nature of the caricatura, burleſque, groteſque, pictureſque, &c. may be underſtood from what is delivered in other parts of this ſection, concerning laughter, wit, humour, the marvellous, abſurd, &c. to which they correſpond.

Painting has a great advantage over verbal deſcription, in reſpect of the vividneſs and number of ideas to be at once excited in the fancy; but its compaſs is, upon the whole, much narrower; and it is alſo confined to one point of time.

The repreſentations of battles, ſtorms, wild beaſts, and other objects of horrour, in pictures, pleaſe us peculiarly, partly from the near alliance which the ideas ſuggeſted bear to pain, partly from the ſecret conſciouſneſs of our own ſecurity, and partly becauſe they awaken and agitate the mind ſufficiently to be ſtrongly affected with the other pleaſures, which may then be offered to it.

OF POETRY.

The beauties and excellencies of good poetry are deducible from three ſources. Firſt, The harmony, regularity, and variety of the numbers or metre, and of the rhyme. Secondly, The fitneſs and ſtrength of the words and phraſes. Thirdly, The ſubject matter of the poem, and the invention and judgment exerted by the poet, in regard to his ſubject. And the beauties ariſing from each of theſe are much transferred upon the other two by aſſociation.

That the verſification has of itſelf a conſiderable influence, may be ſeen by putting good poetical paſſages into the order of proſe. And it may be accounted for from what has been already obſerved of uniformity and variety, from the ſmoothneſs and facility with which verſes run over the tongue, from the frequent coincidence of the end of the ſentence, and that of the verſe, at the ſame time that this rule is violated at proper intervals in all varieties, leſt the ear ſhould be tired with too much ſameneſs, from the aſſiſtance which verſification affords to the memory, from ſome faint reſemblance which it bears to muſic, and its frequent aſſociations with it, &c. &c.

The beauties of the diction ariſe chiefly from the figures; and therefore it will be neceſſary here to inquire into the ſources of their beauties.

Now figurative words ſeem to ſtrike and pleaſe us chiefly from that impropriety which appears at firſt ſight, upon their application to the things denoted by them, and from the conſequent heightening of the propriety, as ſoon as it is duly perceived. For when figurative words have recurred ſo often as to excite the ſecondary idea inſtantaneouſly, and without any previous harſhneſs to the imagination, they loſe their peculiar beauty and force; and, in order to recover this, and make ourſelves ſenſible of it, we are obliged to recall the literal ſenſe, and to place the literal and figurative

ſenſes cloſe together, that ſo we may firſt be ſenſible of the inconſiſtency, and then be more affected with the union and coaleſcence.

Beſides this, figurative expreſſions illuminate our diſcourſes and writings by tranſferring the properties, aſſociations, and emotions, belonging to one thing upon another, by augmenting, diminiſhing, &c. and thus, according as the ſubject is ludicrous or grave, they either increaſe our mirth and laughter, or excite in us love, tenderneſs, compaſſion, admiration, indignation, terror, devotion, &c.

When figures are too diſtant, or too obſcure, when they augment or diminiſh too much, we are diſpleaſed; and the principal art in the uſe of figures is, to heighten, as far as the imagination will permit, the greateſt beauty lying upon the confines of what diſguſts by being too remote or bombaſt. And this extreme limit for figurative expreſſions ſhews evidently, that the pleaſure ariſing from them is nearly allied to pain; and their beauty owing to a certain kind and degree of inconſiſtency.

However, as the various figures uſed in ſpeaking and writing have great influences over each other, alter, and are much altered, as to their relative energy, by our paſſions, cuſtoms, opinions, conſtitutions, educations, &c. there can be no fixed ſtandard for determining what is beauty here, or what is the degree of it. Every perſon may find, that his taſte in theſe things receives conſiderable changes in his progreſs through life; and may, by careful obſervation, trace up theſe changes to the aſſociations that have cauſed them. And yet, ſince mankind have a general reſemblance to each other, both in their internal make, and external circumſtances, there will be ſome general agreements about theſe things common to all mankind. The agreements will alſo become perpetually greater, as the perſons under conſideration are ſuppoſed to agree more in their genius, ſtudies, external circumſtances, &c. Hence may be ſeen, in part, the foundation of the general agreements obſervable in critics, concerning the beauties of poetry, as well as that of their particular diſputes and differences.

It may alſo be proper to remark here, that the cuſtom of introducing figures in a copious manner into poetry, together with the tranſpoſitions, ellipſes, ſuperfluities, and high-ſtrained expreſſions, which the laws of the verſification have forced the beſt poets upon, in ſome caſes, have given a ſanction to certain otherwiſe unallowable liberties of expreſſion, and to a moderate degree of obſcurity, and even converted them into beauties. To which it may be added, that a momentary obſcurity is like a diſcord in muſic properly introduced.

The pleaſure which we receive from the matter of the poem, and the invention and judgment of the poet, in this reſpect, ariſes from the things themſelves deſcribed or repreſented. It is neceſſary therefore, that the poet ſhould chooſe ſuch ſcenes as are beautiful, terrible, or otherwiſe ſtrongly affecting, and ſuch characters as excite love, pity, juſt indignation, &c. or rather, that he ſhould preſent us with a proper mixture of all theſe. For, as they will all pleaſe ſingly, ſo a well ordered ſucceſſion of them will much enhance theſe ſeparate pleaſures, by the contraſts, analogies, and coincidences, which

which this may be made to introduce. In all theſe things the chief art is to copy nature ſo well, and to be ſo exact in all the principal circumſtances relating to actions, paſſions, &c. *i. e.* to real life, that the reader may be inſenſibly betrayed into a half belief of the truth and reality of the ſcene.

Verſes well pronounced affect us much more, than when they merely paſs over the eye, from the imitation of the affections and paſſions repreſented, by the human voice; and ſtill much more, when acted well, and heightened by the proper conjunction of realizing circumſtances.

Since poetry makes uſe of words, which are the principal channel of mutual communication for our thoughts and affections, and has by this means an unlimited compaſs in reſpect of time, place, &c. it muſt, upon the whole, have great advantages over painting.

As the pleaſures of imagination are very prevalent, and much cultivated, during youth; ſo, if we conſider mankind as one great individual, advancing in age perpetually, it ſeems natural to expect, that in the infancy of knowledge, in the early ages of the world, the taſte of mankind would turn much upon the pleaſures of this claſs. And agreeably to this it may be obſerved, that muſic, painting, and poetry, were much admired in ancient times; and the two laſt brought to great perfection. What was the real perfection of the ancient *Grecian* muſic, alſo how far the modern very artificial compoſitions ought to be allowed to excel them, muſt be left to thoſe who are judges of theſe matters.

The beauties of oratory are very nearly allied to thoſe of poetry, ariſing partly from an harmonious flow and cadence of the periods, ſo that uniformity and variety may be properly mixed, partly from the juſtneſs and nervouſneſs of the expreſſions, and partly from the force of the arguments and motives brought together by the invention of the orator, and ſo diſpoſed as to convince the judgment, excite and gain the affections. In both caſes it is very neceſſary, that the reader or hearer ſhould conceive favourably of the deſign and author, in a moral light. Poetry has the advantage of oratory, in reſpect of the ſweetneſs of the numbers, and boldneſs of the figures; but oratory, being a real thing, and one which has great influence in many the moſt important tranſactions, does, by this reality, affect ſome perſons more than poetry; I mean perſons that are mere readers or hearers; for, as to thoſe that are intereſted in the debate, to whom it is a reality, there can be no doubt.

The beauties of hiſtory will eaſily be underſtood from what is ſaid of poetry and oratory.

It is to be obſerved, that poetry, and all fictitious hiſtory, borrow one chief part of their influence from their being imitations of real hiſtory, as this again does from the ſtrong affections and paſſions excited by the events of life, and from the contagiouſneſs of our tempers and diſpoſitions.

The ſame kind of contraſts and coincidences, which, in low and comic things, would be wit or humour, become the brilliant paſſages that affect and ſtrike us moſt eminently in grave poetry, in oratory, and hiſtory.

OF THE PLEASURES ARISING FROM THE STUDY OF THE SCIENCES.

The ſtudy of the ſciences has a great connection with the natural and artificial beauties already conſidered, and receives great luſtre from them in conſequence thereof.

But beſides this, there are many original ſources of pleaſure in the ſtudy of the ſciences: as, Firſt, From the many inſtances of uniformity with variety: Secondly, From the marvellous and ſeemingly impoſſible, which occur in all parts of knowledge: Thirdly, From the great advantages reſpecting human life, which accrue to mankind in general from the purſuit of knowledge, alſo from the honours, riches, &c. which are the rewards conferred upon particular perſons that are eminent: Laſtly, From the numerous connections of truth of all kinds with thoſe moſt amiable and important doctrines, which religion, natural and revealed, teaches us. And when theſe pleaſures, in their ſeveral ſubordinate kinds and degrees, have been ſufficiently aſſociated with the favourite ſtudy, they render it at laſt pleaſant in itſelf, as we uſually term it, *i. e.* theſe ſeveral particular pleaſures coaleſce into a ſingle general one, in which the compounding parts cannot be diſcerned ſeparately from each other, and which conſequently appears to have no relation to its ſeveral compounding parts; unleſs when by a particular attention to, and examination of, what paſſes in our minds, we lay hold of the laſt compounding parts before their entire coaleſcence, or reaſon upon the cauſes of theſe pleaſures, by comparing their growth, and the changes made in them, with the concomitant circumſtances. Thus, if it be obſerved as a general fact, that perſons grow fond of particular ſtudies, remarkably after having received ſome great preſent advantage, or hope of a future one from them, we may reaſonably preſume, that the pleaſure which they take in theſe ſtudies, is in part derived from this ſource, even though it cannot be felt to ariſe from it explicitly.

OF INVENTION.

The copiouſneſs and quickneſs of the invention being principal requiſites for the cultivation of the arts and ſciences with ſucceſs, I will ſay ſomething concerning invention here, my ſubject being now ſufficiently opened for that purpoſe.

Invention then may be defined the art of producing new beauties in works of imagination, and new truths in matters of ſcience. And it ſeems to depend, in both caſes, chiefly upon theſe three things. Firſt, A ſtrong and quick memory: Secondly, An extenſive knowledge in the arts and ſciences; and particularly in thoſe that are contiguous to, or not far diſtant from, that under conſideration: And, Thirdly, The habit

of

of forming and purſuing analogies, the deviations from theſe, and the ſubordinate analogies viſible in many of theſe firſt deviations, &c. &c.

Firſt, A ſtrong and quick memory is neceſſary, that ſo the ideas of the poet or philoſopher may depend upon, and be readily ſuggeſted by, each other.

Secondly, He muſt have a large ſtock of ideas for the purpoſes of figures, illuſtrations, compariſons, arguments, motives, criterions, &c. And it is evident, that the ideas taken from ſuch parts of knowledge, as are pretty nearly allied to his particular ſtudy, will be of moſt uſe to him in it.

Thirdly, Analogy will lead him by degrees, in works of fancy, from the beauties of celebrated maſters to others leſs and leſs reſembling theſe, till at laſt he arrives at ſuch as bear no viſible reſemblance. Deviations, and the ſubordinate analogies contained within them, will do this in a much greater degree; and all analogies will inſtruct him how to model properly ſuch entirely new thoughts, as his memory and acquaintance with things have ſuggeſted to him. In ſcience analogy leads on perpetually to new propoſitions; and, being itſelf ſome preſumption of truth, is a guide much preferable to mere imagination.

It may be obſerved, that the trains of viſible ideas, which accompany our thoughts, are the principal fund for invention, both in matters of fancy, and in ſcience.

As invention requires the three things here ſpoken of, ſo, converſely, no perſon who is poſſeſſed of them, and who applies himſelf to any particular ſtudy either of the imaginative or abſtract kind, with ſufficient aſſiduity, can fail for want of invention. And the nature of this faculty ſeems as reconcileable with, and deducible from, the power of aſſociation, and the mechaniſm of the mind here explained, as that of any other.

OF THE BEAUTY OF THE PERSON.

The word *beauty* is applied to the perſon, particularly in the female ſex, in an eminent manner; and the deſires and pleaſures ariſing from beauty, in this ſenſe, may be conſidered as an intermediate ſtep between the groſs ſenſual ones, and thoſe of pure eſteem and benevolence; for they are, in part, deduced from both theſe extremes; they moderate, ſpiritualize, and improve the firſt, and, in the virtuous, are ultimately converted into the laſt.

But they ariſe alſo from many other ſources in their intermediate ſtate, particularly from aſſociations with the ſeveral beauties of nature and art already mentioned, as of gay colours, rural ſcenes, muſic, painting, and poetry; from aſſociations with faſhion, the opinions and encomiums of others, riches, honours, high birth, &c. from vanity and ambition, &c. Beſides which, the pleaſure of gratifying a ſtrong deſire, and the pain of diſappointment, are to be conſidered here, as being evidently diſtinguiſhable from all the reſt in ſome caſes.

That part of beauty which ariſes from ſymmetry, may perhaps be ſaid to conſiſt in ſuch proportions of the features of the face, and of the head, trunk, and limbs, to each

each other, as are intermediate in reſpect of all other proportions, *i. e.* ſuch proportions as would reſult from an eſtimation by an average: one may ſay at leaſt, that theſe proportions would not differ much from perfect ſymmetry.

The deſires excited by the beauty of the perſon increaſe for ſome time, eſpecially if the ſenſible ones are not gratified, and there be alſo a mixture of hope and fear, in relation to the attainment of the affections of the beloved perſon. But they ſometimes decreaſe, like other deſires, from mere want of novelty, after the affections are gained; and muſt always do ſo after gratification. Nevertheleſs, if there be the proper foundation for eſteem and religious affection in each party, mutual love, with the pleaſures ariſing from it, may increaſe upon the whole, the real circumſtances of life affording more than ſufficient opportunity for gaining in one reſpect, what is loſt in another.

The beauty of the air, geſture, motions, and dreſs, has a great connection with the beauty of the perſon, or rather makes a conſiderable part of it, contributing much to the ſum total; and when conſidered ſeparately, receiving much from the other part of the beauties of the perſon. The ſeparate beauty of theſe things ariſes from ſome imitation of a natural or artificial beauty already eſtabliſhed, from faſhion, high birth, riches, &c. or from their being expreſſive of ſome agreeable or amiable quality of mind. The reciprocal influences of our ideas upon each other, and the endleſs variety of their combinations, are eminently conſpicuous in this article; the ſtrength of deſire here rendering the aſſociations, with the ſeveral ſteps previous to the perfect coaleſcence of the ideas aſſociated, more viſible than in moſt other caſes.

OF WIT AND HUMOUR.

I come now to examine the pleaſures of mirth, wit, and humour.

But, Firſt, It will be neceſſary to conſider the cauſes of laughter, and particularly the mental ones.

Now it may be obſerved, that young children do not laugh aloud for ſome months. The firſt occaſion of doing this ſeems to be a ſurprize, which brings on a momentary fear firſt, and then a momentary joy in conſequence of the removal of that fear, agreeably to what may be obſerved of the pleaſures that follow the removal of pain. This may appear probable, inaſmuch as laughter is a naſcent cry, ſtopped of a ſudden; alſo becauſe if the ſame ſurprize, which makes young children laugh, be a very little increaſed, they will cry. It is uſual, by way of diverting young children, and exciting them to laughter, to repeat the ſurprize, as by clapping the hands frequently, reiterating a ſudden motion, &c.

This is the original of laughter in children, in general; but the progreſs in each particular is much accelerated, and the occaſions multiplied, by imitation. They learn to laugh, as they learn to talk and walk; and are moſt apt to laugh profuſely, when they ſee others laugh; the common cauſe contributing alſo in a great degree to produce this

this effect. The ſame thing is evident even in adults; and ſhews us one of the ſources of the ſympathetic affections.

To theſe things it is to be added, that the alternate motions of the cheſt follow the ſame degrees of mental emotion with more and more facility perpetually, ſo that at laſt children (who are likewiſe more exquiſitely ſenſible and irritable than adults) laugh upon every trifling occaſion.

By degrees they learn the power of ſuſpending the actions both of laughing and crying, and aſſociate this power with a variety of ideas, ſuch as thoſe of decency, reſpect, fear, and ſhame: the incidents and objects, which before occaſioned emotion ſufficient to produce laughter, now occaſion little or none, from the tranſmutation of their aſſociations: their new aſſociated pleaſures and pains are of a more ſedate kind, and do not affect them ſo much by ſurprize; and, which is a principal cauſe in reſpect of individuals, their equals laugh leſs, and, by forming them to the ſame model with themſelves, make the diſpoſition to laughter decreaſe ſtill faſter. For whatever can be ſhewn to take place at all in human nature, muſt take place in a much higher degree, than according to the original cauſes, from our great diſpoſition to imitate one another, which has been already explained.

It confirms this account of laughter, that it follows tickling, as noted above, *i. e.* a momentary pain and apprehenſion of pain, with an immediately ſucceeding removal of theſe, and their alternate recurrency; alſo that the ſofter ſex, and all nervous perſons, are much diſpoſed both to laugh and cry profuſely, and to paſs quickly from one ſtate to the other. And it may deſerve to be inquired, how far the profuſe, continued laughter and mirth on one hand, ſorrow, hanging the lip, and crying, on the other, which occur in madneſs, agree with it.

As children learn the uſe of language, they learn to laugh at ſentences or ſtories, by which ſudden alarming emotions and expectations are raiſed in them, and again diſſipated inſtantaneouſly. And as they learnt before by degrees to laugh at ſudden unexpected noiſes, or motions, where there was no fear, or no diſtinguiſhable one, ſo it is after ſome time in reſpect of words. Children, and young perſons, are diverted by every little jingle, pun, contraſt, or coincidence, which is level to their capacities, even though the harſhneſs and inconſiſtency, with which it firſt ſtrikes the fancy, be ſo minute as ſcarce to be perceived. And this is the origin of that laughter, which is excited by wit, humour, buffoonery, &c.

But this ſpecies of laughter abates alſo by degrees, as the other before conſidered did, and, in general, for the ſame cauſes; ſo that adults, and eſpecially thoſe that are judges of politeneſs and propriety, laugh only at ſuch ſtrokes of wit and humour, as ſurprize by ſome more than ordinary degree of contraſt or coincidence; and have at the ſame time a due connection with pleaſure and pain, and their ſeveral aſſociations of fitneſs, decency, inconſiſtency, abſurdity, honour, ſhame, virtue, and vice; ſo as neither to be too glaring on the one hand, nor too faint on the other. In the firſt caſe, the repreſentation raiſes diſlike and abhorrence; in the laſt, it becomes inſipid.

From

From hence may be ſeen, that in different perſons the occaſions of laughter muſt be as different as their opinions and diſpoſitions; that low ſimilitudes, alluſions, contraſts, and coincidences, applied to grave and ſerious ſubjects, muſt occaſion the moſt profuſe laughter in perſons of light minds; and, converſely, increaſe this levity of mind, and weaken the regard due to things ſacred; that the vices of gluttony, lewdneſs, vain glory, ſelf-conceit, and covetouſneſs, with the concomitant pleaſures and pains, hopes, fears, dangers, &c. when repreſented by indirect circumſtances, and the repreſentation heightened by contraſts and coincidences, muſt be the moſt frequent ſubject of mirth, wit, and humour, in this mixed degenerate ſtate, where they are cenſured upon the whole; and yet not looked upon with a due degree of ſeverity, diſtance, and abhorrence; that company, feaſting, and wine, by putting the body into a pleaſurable ſtate, muſt diſpoſe to laughter upon ſmall occaſions; and that perſons who give themſelves much to mirth, wit, and humour, muſt thereby greatly diſqualify their underſtandings for the ſearch after truth; inaſmuch as by the perpetual hunting after apparent and partial agreements and diſagreements, as in words, and indirect accidental circumſtances, whilſt the true natures of the things themſelves afford real agreements and diſagreements, that are very different, or quite oppoſite, a man muſt by degrees pervert all his notions of things themſelves, and become unable to ſee them as they really are, and as they appear to conſiderate ſober-minded inquirers. He muſt loſe all his aſſociations of the viſible ideas of things, their names, ſymbols, &c. with their uſeful practical relations and properties; and get, in their ſtead, accidental, indirect, and unnatural conjunctions of circumſtances, that are really foreign to each other, or oppoſitions of thoſe that are united; and, after ſome time, habit and cuſtom will fix theſe upon him.

The moſt natural occaſions of mirth and laughter in adults ſeem to be the little miſtakes and follies of children, and the ſmaller inconſiſtencies and improprieties, which happen in converſation, and the daily occurrences of life; inaſmuch as theſe pleaſures are, in great meaſure, occaſioned, or at leaſt ſupported, by the general pleaſurable ſtate, which our love and affection to our friends in general, and to children in particular, put the body and mind into. For this kind of mirth is always checked where we have a diſlike; alſo where the miſtake or inconſiſtency riſes beyond a certain limit; for then it produces concern, confuſion, and uneaſineſs. And it is uſeful not only in reſpect of the good effects which it has upon the body, and the preſent amuſement and relaxation that it affords to the mind; but alſo, becauſe it puts us upon rectifying what is ſo amiſs, or any other ſimilar error, in one another, or in children; and has a tendency to remove many prejudices from cuſtom and education. Thus we often laugh at children, ruſtics, and foreigners, when yet they act right, according to the truly natural, ſimple, and uncorrupted dictates of reaſon and propriety, and are guilty of no other inconſiſtency, than what ariſes from the uſurpations of cuſtom over nature; and we often take notice of this, and correct ourſelves, in conſequence of being diverted by it.

OF INCONSISTENCY, DEFORMITY, AND ABSURDITY.

Having now conſidered, in a ſhort and general way, all the pleaſures that ſeem properly to belong to the head of imagination, I will ſay ſomething concerning the pains of this claſs, viz. thoſe which ariſe from the view of groſs inconſiſtency, abſurdity, and deformity. Here we may obſerve,

Firſt, That theſe pains are the root and ſource of many of the fore-mentioned pleaſures, particularly thoſe ariſing from figurative expreſſions, and of wit and humour, as has been ſhewn in treating of theſe things.

Secondly, That the diſguſt and uneaſineſs here conſidered never riſe to any very great height, unleſs ſome of the pains of ſympathy, or of the moral ſenſe, mix themſelves with them. From whence it ſeems to follow, that the mere *pleaſures* of imagination and beauty are alſo of a kind much inferior to thoſe of ſympathy, and the moral ſenſe.

The perplexity, confuſion, and uneaſineſs, which we labour under in abſtruſe inquiries, philoſophical, moral, and religious, ought, perhaps, to be referred to this head. Alſo the ſecondary perplexity which ariſes from our being ſubject to this perplexity, confuſion, and uneaſineſs. However, all this is to be accounted for as any other evil, and does not ſeem to be attended either with greater or leſs difficulties. No perplexity can give us more than a limited degree of pain; and all our perplexities have probably both the ſame general good effects as our other pains; and alſo, like each of theſe, ſome good effects peculiar to themſelves.

We may now obſerve upon the whole, that according to the foregoing hiſtory of the pleaſures of imagination, there muſt be great differences in the taſtes and judgements of different perſons; and that no age, nation, claſs of men, &c. ought to be made the teſt of what is moſt excellent in artificial beauty; nor conſequently of what is abſurd. The only things that can be ſet up as natural criterions here ſeem to be uniformity with variety, uſefulneſs in general, and the particular ſubſerviency of this or that artificial beauty to improve the mind, ſo as to make it ſuit beſt with our preſent circumſtances, and future expectations. How all theſe criterions conſiſt with each other, and unite in the ſingle criterion of religion, or the love of God, and of our neighbour, underſtood in the comprehenſive ſenſe of theſe words, I ſhall endeavour to ſhew hereafter.

SECT. II.

OF THE PLEASURES AND PAINS OF AMBITION.

PROP. XCV.

To examine how far the Pleaſures and Pains of Ambition are agreeable to the foregoing Theory.

THE opinions of others concerning us, when expreſſed by correſponding words or actions, are principal ſources of happineſs or miſery. The pleaſures of this kind are uſually referred to the head of honour; the pains to that of ſhame; but as it is moſt convenient to have a ſingle word, to which to refer both the pleaſures and pains of this claſs, I have made choice of ambition for that purpoſe. It will therefore be our buſineſs, under this propoſition, to inquire by what aſſociations it is brought about, that men are ſolicitous to have certain particulars concerning themſelves made known to the circle of their friends and acquaintance, or to the world in general; and certain others concealed from them; alſo, why all marks and evidences, that theſe two ſeveral kinds of particulars are made known, ſo as to beget approbation, eſteem, praiſe, high opinion, &c. or diſlike, cenſure, contempt, &c. occaſion ſuch exquiſite pleaſures and pains, as thoſe of honour and ſhame, *i. e.* of ambition.

The particulars which we deſire to have made known to, or concealed from, others, in order to obtain praiſe, or avoid diſpraiſe, may be claſſed under the four following heads.

Firſt, External advantages or diſadvantages.

Secondly, Bodily perfections and imperfections.

Thirdly, Intellectual accompliſhments or defects.

Fourthly, Moral ones, *i. e.* virtue or vice.

I will now endeavour to ſhew what pleaſures and pains, bodily and intellectual, are aſſociated with the opinions which others form of us, in theſe four reſpects, *i. e.* either with the ſeveral methods by which they receive their information; or with thoſe by which they ſignify their having received it, and their conſequent approbation or diſapprobation, reſpect or contempt.

OF EXTERNAL ADVANTAGES AND DISADVANTAGES.

I begin with the conſideration of external advantages or diſadvantages. The principal of theſe are fine clothes, riches, titles, and high birth, with their oppoſites, rags, poverty, obſcurity, and low birth.

Now

Now it is evident, that theſe external advantages and diſadvantages become ſuch by being made known to others; that the firſt gain men certain privileges and pleaſures; and the laſt ſubject them to inconveniencies and evils only, or chiefly, when they are diſcovered to the world. It follows therefore that every diſcovery of this kind to others, alſo every mark and aſſociate of ſuch diſcovery, will, by aſſociation, raiſe up the miniatures of the privileges and pleaſures, inconveniencies, and evils, reſpectively; and thus afford, in each inſtance, a peculiar compound pleaſure or pain, which, by the uſe of language, has the word *honour* or *ſhame* reſpectively annexed to it.

This is the groſs account of the generation of theſe pleaſures and pains; but the ſubordinate particulars contain many things worthy of obſervation.

Thus fine clothes pleaſe both children and adults, by their natural or artificial beauty; they enhance the beauty of the perſon; they excite the compliments and careſſes of the attendants in a peculiarly vivid manner; they are the common aſſociates of riches, titles, and high birth; they have vaſt encomiums beſtowed upon them; and are ſometimes the rewards of mental accompliſhments and virtue. Rags, on the contrary, are often attended with the moſt loathſome and offenſive ideas, with bodily infirmity, poverty, contempt, and vice. It is eaſy therefore to ſee, that in our progreſs through life, a compound aſſociated deſire of fine clothes, and abhorrence of rags, will ſpring up ſo early as to be deemed a natural one. And if a perſon paſſes of a ſudden from rags to fine clothes, or *vice verſa*, the pleaſure or pain will be enhanced accordingly, by the juxtapoſition of the oppoſites.

Now theſe pleaſures and pains, which thus attend a perſon's being actually dreſſed in fine clothes, or in rags, will, by farther aſſociations, be transferred upon all the concomitant circumſtances, the poſſeſſion of fine clothes, the hopes of them, or the fear of rags; and particularly upon all narrations and ſymbols, whereby others are firſt informed of the perſon's dreſs, or diſcover their prior knowledge of it; ſo that the perſon ſhall have his vanity gratified, or his ſhame excited, by all ſuch narrations, and by all the concomitant circumſtances and ſymbols.

Riches, titles, and high birth, are attended with aſſociates of the ſame kind as fine clothes; with this difference, however, that it requires a farther progreſs in life to be ſufficiently affected with the compound pleaſure reſulting from the aſſociates of theſe, and conſequently for acquiring a taſte for thoſe pleaſures of honour, which riches, titles, and high birth afford. Agreeably to which it may be obſerved, that the firſt inſtance of pride and vanity in children is that which ariſes from fine clothes.

In the progreſs through life, eſpecially in the virtuous, it often happens, that oppoſite aſſociations are generated, *i. e.* ſuch as break the connection between the ideas of happineſs and fine clothes, riches, titles, high birth; alſo between miſery and rags, poverty, obſcurity, and low birth; nay, there are ſome inſtances in which theſe laſt are connected with ſome kinds and degrees of happineſs. Now in all theſe caſes the pride and vanity, or ſhame, by which we hope or fear to have our circumſtances, in theſe

reſpects, known to the world, leſſen, ceaſe entirely, or even turn about to the oppoſite quarter accordingly; ſo that when a perſon has loſt his deſire of being rich, or high born, he alſo loſes his deſire of being thought ſo; and when he gains an oppoſite deſire of becoming poor, on a religious account, for inſtance, or a complacence in being low born, on account of his preſent high ſtation, &c. he deſires alſo to have this known to the world. And yet there may, in moſt caſes, be perceived ſome diſtance in time between the deſire of *being*, and the ſubſequent aſſociated deſire of *being thought*, viz. ſuch a diſtance of time as may ſuffice for the aſſociations to produce their effect in.

Riches are attended with many conveniencies, whether a perſon be known to poſſeſs them, or no; and there are inconveniencies, as well as conveniencies, attending the reputation of being rich; but titles and high birth are then only productive of privileges and pleaſures, when made known to the world; whence it is eaſy to ſee that pride and vanity may ſhew themſelves much more commonly in reſpect of titles and high birth, than in reſpect of riches, which is agreeable to the fact.

The ſhamefacedneſs of ruſtics, poor perſons, and inferiors in general, in the preſence of their ſuperiors, with the great confuſion and uneaſineſs that often attend it, ariſes from the ſources of honour and ſhame here laid open, and particularly from the ſtrong contraſt between their own circumſtances and thoſe of their ſuperiors.

OF BODILY PERFECTIONS AND IMPERFECTIONS.

The chief bodily circumſtances, which are the ſources of the pleaſures of honour, or of the pains of ſhame, are beauty, ſtrength, and health, on the one hand; and their oppoſites, deformity, imbecility, unfitting a perſon for the functions of life, and diſeaſe, on the other. I will make ſome ſhort remarks upon each.

Beauty has an intimate connection with one of the moſt violent of our deſires; affords a great pleaſure, even where this deſire is not felt explicitly; has the higheſt encomiums beſtowed upon it in books, eſpecially in ſuch as are too much in the hands of young perſons, and the higheſt compliments paid to it in diſcourſe; and is often the occaſion of ſucceſs in life; all which holds more particularly in reſpect of women, than of men. No wonder therefore, that both ſexes, but eſpecially women, ſhould deſire both to *be* and *be thought* beautiful, and be pleaſed with all the aſſociated circumſtances of theſe things; and that the fear of *being* or *being thought* deformed, ſhould be a thing to which the imagination has the greateſt reluctance. And the reputation of beauty, with the ſcandal of deformity, influences ſo much the more, as beauty and deformity are not attended with their reſpective pleaſing or diſpleaſing aſſociates, except when they are made apparent to, and taken notice of by the world. So that here the original deſire is rather to *be thought* beautiful than to *be* ſo; and this laſt is chiefly a conſequential one ariſing in our minds, from the cloſe connection of *being* with *being thought*.

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In ſtrength it is otherwiſe. This is the ſource of many conveniencies, and imbecility, its oppoſite, of many inconveniencies, whether they be taken notice of or no; as well as of ſome which depend on their being thus taken notice of. It is reaſonable therefore here to ſuppoſe, that our firſt and greateſt deſire ſhould be after the thing itſelf; and ſo it is in fact. However, ſince ſeveral advantages ariſe from ſhewing our ſtrength; ſince all the oſtentation of happineſs of any kind belonging to ourſelves, or the notice which others take of it, bring in the pleaſing idea with great vigour; it is evident, that there muſt be eager deſires of *being thought* ſtrong, agile, &c. as well as of *being* ſo. And, by parity of reaſon, men will be much aſhamed of *being thought* weak and feeble, as well as afraid of being ſo. And as women glory chiefly in beauty, ſo men do in ſtrength; this being chiefly a ſource of advantages and pleaſures to men, as that is to women. Nay, one may even obſerve, that any great degree of beauty in men, or ſtrength in women, by being oppoſite to that perfection, which is peculiar to each ſex, is thought rather undeſirable than deſirable.

Health and ſickneſs have many connections with beauty and ſtrength, deformity and imbecility, reſpectively; and therefore may eaſily be conceived to become reſpectively the ſources of the pleaſures of honour, or of the pains of ſhame, agreeably to the fact. But, in diſeaſes, ſo many greater pains and evils, fears, anxieties, &c. with ſome pleaſures, ſuch as thoſe of friendſhip, occur likewiſe, that there is, in moſt caſes, little room for ſhame to exert itſelf: however, if the diſeaſe be the conſequence either of a virtuous, or a vicious, courſe of action, the honour or ſhame, belonging to virtue or vice reſpectively, will be transferred upon it.

There is a high degree of ſhame, which attends the natural evacuations, particularly thoſe of the fæces and urine, which is in part deduced from the offenſiveneſs of the excrements of the body, and is nearly related to the ſhame attending bodily infirmities and diſeaſes. But this ſhame, as it reſpects the fæces and urine, has alſo a particular connection with that which relates to the pudenda, ariſing from the vicinity of the organs; and thus they give and receive mutually. They are alſo both of them much increaſed by education, cuſtom, and the precepts and epithets of parents and governors. The original ſources of the ſhame relating to the pudenda are probably the privacy requiſite (which is both cauſe and effect), the greatneſs of the pleaſure, and the ſenſe of guilt which often attends; and there may be perhaps ſomething of inſtinct, which operates here quite independently of aſſociation.

OF INTELLECTUAL ACCOMPLISHMENTS AND DEFECTS.

The intellectual accompliſhments and defects which occaſion honour and ſhame, are ſagacity, memory, invention, wit, learning; and their oppoſites, folly, dulneſs, and ignorance. Here we may deduce a conſiderable part from the many advantages ariſing from the accompliſhments, diſadvantages from the defects, in the ſame manner

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as has been done already in the two foregoing articles. But a great part, perhaps the greateſt, is deduced from the high-ſtrained encomiums, applauſes, and flatteries, paid to parts and learning, and the outrageous ridicule and contempt thrown upon folly and ignorance, in all the diſcourſes and writings of men of genius and learning; theſe perſons being extremely partial to their own excellencies, and carrying the world with them by the force of their parts and eloquence. It is alſo to be obſerved, that in the education of young perſons, and eſpecially of boys and young men, great rewards are conferred in conſequence of intellectual attainments and parts; and great puniſhments follow negligence and ignorance; which rewards and puniſhments, being reſpectively aſſociated with the words expreſſing praiſe and cenſure, and with all their other circumſtances, transfer upon praiſe and cenſure compound vivid miniatures, pleaſant and painful.

In like manner all the kinds of honour and ſhame, by being expreſſed in words and ſymbols, that are nearly related to each other, enhance each other: thus, for inſtance, the careſſes given to a child when he is dreſſed in fine clothes prepare him to be much more affected with the careſſes and encomiums beſtowed upon him when he has been diligent in getting his leſſon, and indeed it ought to be remarked, that the words and phraſes of the parents, governors, ſuperiors, and attendants, have ſo great an influence over children, when they firſt come to the uſe of language, as inſtantly to generate an implicit belief, a ſtrong deſire, or a high degree of pleaſure. They have no ſuſpicions, jealouſies, memories, or expectations of being deceived or diſappointed; and therefore a ſet of words expreſſing pleaſures of any kind, which they have experienced, put together in almoſt any manner, will raiſe up in them a pleaſurable ſtate, and oppoſite words a painful one. Whence it is eaſy to ſee, that the fine language expreſſing praiſe, and the harſh one expreſſing diſpraiſe, muſt inſtantly, from the mere aſſociations heaped upon the ſeparate words, put them into a ſtate of hope and joy, fear and ſorrow, reſpectively. And when the foundation is thus laid, praiſe and diſpraiſe will keep their influences from the advantages and diſadvantages attending them, though the ſeparate words ſhould loſe their particular influences, as they manifeſtly do in our progreſs through life.

The honour and ſhame ariſing from intellectual accompliſhments do often, in learned men, after ſome time, deſtroy, in great meaſure, their ſenſibility, in reſpect of every other kind of honour and ſhame; which ſeems chiefly to ariſe from their converſing much with books, and learned men, ſo as to have a great part of the pleaſures, which they receive from this their converſation, cloſely connected with the encomiums upon parts and learning; alſo to have all terms of honour applied to them, and the keeneſt reproach, and moſt inſolent contempt, caſt upon the contrary defects. And, as the pleaſures which raillery, ridicule, and ſatire, afford to the by-ſtanders, are very conſiderable, ſo the perſon who is the object of them, and who begins to be in pain upon the firſt ſlight marks of contempt, has this pain much enhanced by the contraſt,

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the exquiſiteneſs of his uneaſineſs and confuſion riſing in proportion to the degree of mirth, and inſolent laughter in the by-ſtanders: whence it comes to paſs, that extremely few perſons have courage to ſtand the force of ridicule; but rather ſubject themſelves to conſiderable bodily pains, to loſſes, and to the anxiety of a guilty mind, than appear fooliſh, abſurd, ſingular, or contemptible to the world, or even to perſons of whoſe judgment and abilities they have a low opinion.

All this is, in general, more applicable to men than to women, juſt as the honour and ſhame belonging to beauty and deformity is more applicable to women than men; both which obſervations are eaſily deducible from the different talents and ſituations in life of the two ſexes.

OF VIRTUE AND VICE.

We come, in the laſt place, to conſider moral accompliſhments and defects, or virtue and vice. Now it is very evident, that the many advantages, public and private, which ariſe from the firſt, will engage the world to beſtow upon it much honour and applauſe, in the ſame manner as the evil conſequences of vice muſt make *it* the object of cenſure and reproach. Since therefore the child is affected with the words expreſſing honour and cenſure, both from the ſeparate influences of theſe words, and from the application of phraſes of this kind to other ſubjects of praiſe and diſpraiſe, he muſt be affected by the commendations beſtowed upon him when he has done well, and by the cenſures paſſed on him when he has done ill.

Theſe commendations and cenſures are alſo attended with great immediate rewards and puniſhments, likewiſe with the hopes and fears relating to another world; and when the moral ſenſe is ſufficiently generated, with great ſecret indeterminate pleaſure or pain of this kind; and theſe aſſociations add a particular force to the honour and ſhame belonging reſpectively to virtue and vice. At the ſame time it is eaſy to ſee, that ſome conſiderable progreſs in life is ordinarily required before men come to be deeply and laſtingly affected by theſe things; alſo that this kind of honour and ſhame may, at laſt, from the ſuperior force of the aſſociated pleaſures and pains, abſorb, as it were, all the other kinds. A religious man becomes at laſt inſenſible, in great meaſure, to every encomium and reproach, excepting ſuch as he apprehends will reſt upon him at the laſt day, from him whoſe judgment cannot err.

This is the general account of the honour and ſhame paid to virtue and vice reſpectively. I will now make a few ſhort ſtrictures upon ſome of the principal virtues and vices.

Firſt, then, Piety is not in general, and amongſt the bulk of mankind, had in great honour. This proceeds from ſeveral cauſes; as that in the order of our progreſs it is the laſt of the virtues, and therefore, having few votaries, it muſt have few advocates; that in the firſt attempts to attain it, men often fall into great degrees of enthuſiaſm and

ſuperſtition,

ſuperſtition, and ſo expoſe themſelves to the charges of folly, madneſs, and ſelf-conceit; and that pretences to it are often made uſe of by hypocrites to cover the worſt deſigns. Now from theſe and ſuch like cauſes it happens, that men are much aſhamed to be thought devout, fearing that exquiſite uneaſineſs, which being ridiculed and contemned as fools, madmen, and hypocrites, occaſions. At the ſame time it appears, that amongſt thoſe who have made conſiderable advances in religion, piety will be had in the greateſt honour: theſe ſee evidently how it may be diſtinguiſhed from enthuſiaſm, ſuperſtition, and hypocriſy; and are very little ſolicitous concerning the opinions of the profane world, who are apt to confound them; and therefore as far as their piety will permit any foreign deſire to ariſe, they have an exquiſite reliſh for the honour and eſteem proceeding from the reputation of piety.

Benevolence ſprings up more early in life than piety, and has at firſt view a more immediate good influence upon ſociety. There are alſo greater numbers who arrive at ſome imperfect degrees of it, than who arrive at like degrees of piety; neither are the degenerations and counterfeits of benevolence ſo common as thoſe of piety. On theſe accounts much greater and more frequent encomiums are beſtowed upon it by the bulk of mankind, than upon piety; and theſe, with the many advantages reſulting from the reputation of being benevolent, make moſt perſons eagerly deſire this reputation; ſo that they perform many actions from mere ambition, or from a mixture of this with benevolence, which they deſire the world ſhould think to proceed from mere benevolence.

Military glory, and the high applauſes beſtowed upon perſonal courage, ſeem, in a conſiderable degree, deducible from this ſource, from the benevolent deſign of protecting the innocent, the helpleſs, one's friends and country, from invaſions, robberies, wild beaſts, &c. The connection of theſe with bodily ſtrength, and the characteriſtical perfections of men as diſtinguiſhed from women and children, the rarity and difficulty of them, the vaſt encomiums beſtowed upon them by poets, orators and hiſtorians, eſpecially in ancient times, *i. e.* by thoſe authors which are read in ſchools, and lay hold of our pliant imaginations when young, the ridicule caſt upon timorouſneſs by boys and men, as not being a common imperfection amongſt them, and the connection of the fear of death with the ſenſe of guilt, all concur likewiſe, and have carried mankind ſo far as make them confer the higheſt honours upon the moſt cruel, lawleſs, and abominable actions, and conſequently incite one another to perform ſuch actions from ambitious views. However, this falſe glare ſeems to fade in theory, amongſt writers; and one may hope that the practice of mankind will be, in ſome meaſure, agreeable to the corrections made in their theory.

Temperance and chaſtity have conſiderable honours beſtowed upon them; but the ſhame and ſcandal attending the oppoſite vices, and which ariſe from the loathſome diſeaſes, and the many miſeries, which men bring upon themſelves and others by theſe vices, are much more remarkable. The detail of theſe things might eaſily be delivered from

from parallel obſervations already made. It happens ſometimes, that ſome degrees of theſe vices are looked upon by young and ignorant perſons, as honourable, from certain connections with manlineſs, faſhion, high life: however, this is ſtill in conformity with the doctrine of aſſociation, and the derivation of all the pleaſures of honour from happineſs under ſome form or other; and, when the ſame perſons become better inſtructed in the real conſequences and connections of things, their opinions change accordingly.

Negative humility, or the not thinking better, or more highly, of ourſelves than we ought, in reſpect of external advantages, bodily, intellectual, or moral accompliſhments, and being content with ſuch regards as are our due, which is the firſt ſtep; and then poſitive humility, or a deep ſenſe of our own miſery and imperfections of all kinds, and an acquieſcence in the treatment which we receive from others, whatever it be; being virtues which are moſt commodious to ourſelves and others, and highly amiable in the ſight of all thoſe who have made a due proficiency in religion, and the moral ſenſe, come at laſt to be honoured and eſteemed in an eminent manner, and conſequently to incite men from mere vanity and ambition to ſeek the praiſe of humility. And the ridicule and ſhame which attend vanity, pride, and ſelf-conceit, concur to the ſame purpoſe; which is a remarkable inſtance of the inconſiſtency of one part of our frame with itſelf, as the caſe now ſtands, and of the tendency of vice to check and deſtroy itſelf.

From the whole of what has been delivered upon this claſs of pleaſures and pains, one may draw the following corollaries.

Cor. 1. All the things in which men pride themſelves, and for which they deſire to be taken notice of by others, are either means of happineſs, or have ſome near relation to it. And indeed it is not at all uncommon to ſee perſons take pains to make others believe, that they are happy, by affirming it in expreſs terms. Now this, conſidered as a mere matter of fact, occurring to attentive obſervation, might lead one to conclude, that the pleaſures of honour and ambition are not of an original, inſtinctive, implanted nature, but derived from the other pleaſures of human life, by the aſſociation of theſe into various parcels, where the ſeveral ingredients are ſo mixed amongſt one another, as hardly to be diſcernible ſeparately. The young, the gay, and the polite, are ambitious of being thought beautiful, rich, high born, witty, &c. The grave, the learned, the afflicted, the religious, &c. ſeek the praiſe of wiſdom and knowledge, or to be eſteemed for piety and charity; every one according to his opinions of theſe things, as the ſources, marks, or offſprings of happineſs. And when men boaſt of their poverty, low birth, ignorance, or vice, it is always in ſuch circumſtances, with ſuch additions and contraſts, or under ſuch reſtrictions, as that the balance, upon the whole, may, ſome way or other, be the more in their favour on that account.

Cor. 2. Praiſe and ſhame are made uſe of by parents and governors, as chief motives and ſprings of action; and it becomes matter of praiſe to a child, to be

influenced by praiſe, and deterred by ſhame; and matter of reproach, to be inſenſible in theſe reſpects. And thus it comes to paſs, that praiſe and ſhame have a ſtrong reflected influence upon themſelves; and that praiſe begets the love of praiſe, and ſhame increaſes the fear of ſhame. Now, though the original praiſe, commendation, blame, cenſure, &c. of good parents and preceptors, extend only, for the moſt part, to acquired accompliſhments and defects, and particularly to virtue and vice; yet the ſecondary influence will affect men in reſpect of all ſorts of encomiums and cenſures, of every thing that comes under the ſame denomination, that is aſſociated with, or tied up by, the ſame words. Though the preceptor direct his pupil only to regard the judgment of the wiſe and good, ſtill there are ſo many like circumſtances attending the judgment of others, that it will be regarded ſomething the more from the leſſons received, in reſpect of the wiſe and good, excluſively of others.

Cor. 3. In conſidering the ſources of honour and ſhame it will appear, that they are by no means conſiſtent with one another; and, by a farther inquiry, that the *maximum* of the pleaſures of this claſs ultimately coincides, *omni ex parte*, with moral rectitude.

SECT. III.

OF THE PLEASURES AND PAINS OF SELF-INTEREST.

PROP. XCVI.

To examine how far the Pleaſures and Pains of Self-intereſt are agreeable to the foregoing Theory.

Self-interest may be diſtinguiſhed into three kinds, viz.

Firſt, Groſs ſelf-intereſt, or the cool purſuit of the means whereby the pleaſures of ſenſation, imagination, and ambition, are to be obtained, and their pains avoided.

Secondly, Refined ſelf-intereſt, or a like purſuit of the means that relate to the pleaſures and pains of ſympathy, theopathy, and the moral ſenſe.

And, Thirdly, Rational ſelf-intereſt, or the purſuit of a man's greateſt poſſible happineſs, without any partiality to this or that kind of happineſs, means of happineſs, means of a means, &c.

OF GROSS SELF-INTEREST.

The love of money may be conſidered as the chief ſpecies of groſs ſelf-intereſt, and will help us, in an eminent manner, to unfold the mutual influences of our pleaſures and

and pains, with the factitious nature of the intellectual ones, and the doctrine of aſſociation in general, as well as the particular progreſs, windings, and endleſs redoublings of ſelf-love. For it is evident at firſt ſight, that money cannot naturally and originally be the object of our faculties; no child can be ſuppoſed born with the love of it. Yet we ſee, that ſome ſmall degrees of this love riſe early in infancy; that it generally increaſes during youth and manhood; and that at laſt, in ſome old perſons, it ſo engroſſes and abſorbs all their paſſions and purſuits, as that from being conſidered as the repreſentative, ſtandard, common meaſure and means of obtaining the commodities which occur in common life, it ſhall be eſteemed the adequate exponent and means of happineſs in general, and the thing itſelf, the ſum total of all that is deſirable in life. Now the monſtrous and gigantic ſize of this paſſion, in ſuch caſes, ſupported evidently by aſſociation alone, will render its progreſs and growth more conſpicuous and ſtriking; and conſequently greatly contribute to explain the correſponding particulars in other paſſions, where they are leſs obvious.

Let us inquire therefore, for what reaſons it is that children firſt begin to love money. Now they obſerve, that money procures for them the pleaſures of ſenſation, with ſuch of imagination as they have acquired a reliſh for. They ſee that it is highly valued by others; that thoſe who poſſeſs it are much regarded and careſſed; that the poſſeſſion of it is generally attended by fine clothes, titles, magnificent buildings, &c. imitation, and the common contagion of human life, having great power here, as in other caſes. Since therefore ideas exciting deſire are thus heaped upon money by ſucceſſive aſſociations perpetually recurring, the deſire of it in certain ſums and manners, viz. ſuch as have often recurred with the concomitant pleaſures, muſt at laſt grow ſtronger than the fainter ſenſible and intellectual pleaſures; ſo that a child ſhall prefer a piece of money to many actual gratifications to be enjoyed immediately.

And as all the fore-mentioned aſſociations, or ſuch as are analogous to them, continue during life, it ſeems probable, that the love of money would at laſt devour all the particular deſires, upon which it is grounded, was it not reſtrained by counter-aſſociations; juſt as it was obſerved above, that the pleaſure of gratifying the will would devour all the particular pleaſures, to which it is a conſtant aſſociate, did not repeated diſappointments preſerve us from this enormous increaſe of wilfulneſs.

Let us next examine how the love of money is checked.

Firſt, then, It is checked by the ſtrong deſires of young perſons, and others, after particular gratifications; for theſe deſires, by overpowering their acquired averſion to part with money, weaken it gradually, and conſequently weaken the pleaſure of keeping, and the deſire of obtaining, all which are cloſely linked together in this view; notwithſtanding that the laſt, viz. the deſire of obtaining, and by conſequence (in an inverted order) the pleaſure of keeping, and the averſion to part with, are ſtrengthened by the deſires of particular pleaſures to be purchaſed by money,

in another view. And this contrariety of our aſſociations is not only the means of limiting certain paſſions, but is a mark ſet upon them by the author of nature, to ſhew that they ought to be limited, even in our progreſs through this life; and that they muſt ultimately be annihilated, every one in its proper order.

Secondly, The inſignificancy of riches in warding off death and diſeaſes, alſo ſhame and contempt in many caſes, and in obtaining the pleaſures of religion, and the moral ſenſe, and even thoſe of ſympathy, ambition, imagination, and ſenſation, firſt leſſen their value in the eyes of thoſe who make juſt obſervations upon things in their progreſs through life, and afterwards fix a poſitive nothingneſs and worthleſſneſs upon them.

Thirdly, The eager purſuit of any particular end, as fame, learning, the pleaſures of the imagination, &c. leaves little room in the mind either for avarice, or any other foreign end.

Now by theſe and ſuch like conſiderations we may account not only for the limitation put to the love of money, but alſo for certain mixtures of tempers and diſpoſitions, which are often found in fact, and yet ſeem at firſt ſight inconſiſtent ones. Thus profuſeneſs, in reſpect of ſenſual and ſelfiſh pleaſures is often joined with avarice. Covetous perſons are often rigidly juſt in paying, as well as exacting; and ſometimes generous, where money is not immediately and apparently concerned. They have alſo moderate paſſions in other reſpects; for the moſt part, are ſuſpicious, timorous, and complaiſant. And the moſt truly generous, charitable, and pious perſons, are highly frugal, ſo as to put on the appearance of covetouſneſs, and even ſometimes, and in ſome things, to border upon it.

We may ſee alſo, why the love of money muſt in general, grow ſtronger with age; and eſpecially if the particular gratifications, to which the perſon was moſt inclined, become inſipid or unattainable—Why frequent reflections upon money in poſſeſſion, and the actual viewing large ſums, ſtrengthen the aſſociations by which covetouſneſs is generated—Why children, perſons in private and low life, and indeed moſt others, are differently affected towards the ſame ſum of money, in different forms, gold, ſilver, notes, &c.

Let us next inquire, for what reaſons it is that the love of money has the idea of ſelfiſhneſs attached to it in a peculiar manner, much more ſo than the purſuit of the pleaſures of honour, imagination, or ſympathy; whereas all are equally generated by aſſociation, from ſenſible and ſelfiſh pleaſures, all in their ſeveral degrees promote private happineſs, and are all purſued, in ſome caſes, coolly and deliberately from the proſpect of obtaining private happineſs thereby. Now the reaſons of this ſeem to be,

Firſt, That whatever riches one man obtains, another muſt loſe; ſo that the circulation of money by trades, profeſſions, offices, &c. is a kind of gaming; and has moſt of the ſame diſguſtful ideas annexed to it, when conſidered with ſome attention, and excluſively of private ſelfiſh feelings; whereas the pleaſures of ſympathy conſiſt in doing

doing good to others; thoſe of ambition are ſcarce attainable in any great degree without this, or at leaſt the appearance of it; and the pleaſures of imagination are both capable of a very extenſive communication, and moſt perfect when enjoyed in company.

Secondly, A regard to *ſelf* frequently recurring muſt denominate a pleaſure *ſelfiſh*; ſo that if any of the moſt generous pleaſures, and ſuch as at firſt view have no immediate relation to ſelf-intereſt, be purſued in a cool, deliberate way, not from the influence of a preſent inclination, but the preconceived opinion, that it will afford pleaſure, this is referred to ſelf-intereſt. Now money has ſcarce any other relation to pleaſure than that of an evident means; ſo that even after it has gained the power of pleaſing inſtantaneouſly, the intermediate deliberate ſteps and aſſociations muſt, however, frequently appear. It procures the other pleaſures for us every day, after it has become pleaſant in itſelf; and therefore muſt always be conſidered as a principal means. The other pleaſures have, in general, a far greater ſhare of indirect aſſociations with previous pleaſures, and acquire the power of gratifying, not ſo much from being manifeſt cauſes of other gratifications, as their moſt common adjuncts; whereas money is generally the moſt viſible of all the cauſes. But honour, power, learning, and many other things, are purſued, in part, after the ſame manner, and for the ſame reaſons, as riches, viz. from a tacit ſuppoſition, that the acquiſition of every degree of theſe is treaſuring up a proportional degree of happineſs, to be produced and enjoyed at pleaſure. And the deſires of each of theſe would in like manner increaſe perpetually during life, did they not curb one another by many mutual inconſiſtencies, or were not all damped by the frequent experience and recollection, that all the means of happineſs ceaſe to be ſo, when the body or mind ceaſe to be diſpoſed in a manner proper for the reception of happineſs.

It is alſo worthy of obſervation, that riches, honours, power, learning, and all other things, that are conſidered as means of happineſs, become means and ends to each other in a great variety of ways, thus transferring upon each other all the aſſociated pleaſures which they collect from different quarters, and approaching nearer and nearer perpetually to a perfect ſimilarity and ſameneſs with each other, in the inſtantaneous pleaſures which they afford when purſued and obtained as ends.

It appears likewiſe, that all aggregates of pleaſure, thus collected by them all, muſt, from the mechaniſm and neceſſity of our natures, and of the world which ſurrounds us, be made at laſt to centre and reſt upon him who is the inexhauſtible fountain of all power, knowledge, goodneſs, majeſty, glory, property, &c. So that even avarice and ambition are, in their reſpective ways, carrying on the benevolent deſigns of him who is *all in all*. And the ſame thing may be hoped of every other paſſion and purſuit. One may hope, that they all agree and unite in leading to ultimate happineſs and perfection. However, they differ greatly in their preſent conſequences, and in their future ones, reaching to certain intervals of time indefinite and unknown to us, thus becoming good or evil, both naturally and morally, in reſpect of us, and our limited

apprehenſions

apprehenſions, judgments, and anticipations. And yet one may humbly hope, as was ſaid above, that every thing muſt be ultimately good, both naturally and morally.

OF REFINED SELF-INTEREST.

The ſecond ſpecies of ſelf-intereſt is that which I call refined ſelf-intereſt. As the foregoing ſpecies is generated by an attention to, and frequent reflection upon, the things which procure us the pleaſures of ſenſation, imagination, and ambition; and therefore cannot prevail in any great degree, till theſe pleaſures have been generated, and prevailed for ſome time; ſo this ſpecies, or refined ſelf-intereſt, which is a cool, deliberate ſeeking for ourſelves the pleaſures of ſympathy, religion, and the moral ſenſe, preſuppoſes the generation of theſe pleaſures, and the enjoyment of them for a ſufficient time. And as ſome degree of groſs ſelf-intereſt is the natural and neceſſary conſequence of the three firſt claſſes of pleaſures, ſo is ſome degree of refined ſelf-intereſt of the three laſt. A perſon who has had a ſufficient experience of the pleaſures of friendſhip, generoſity, devotion, and ſelf-approbation, cannot but deſire to have a return of them, when he is not under the particular influence of any one of them, but merely on account of the pleaſure which they have afforded; and will ſeek to excite theſe pleaſures by the uſual means, to treaſure up to himſelf ſuch means, keep himſelf always in a diſpoſition to uſe them, &c. not at all from any particular vivid love of his neighbour, or of God, or from a ſenſe of duty to him, but entirely from the view of private happineſs. At leaſt, there will be a great mixture of this refined ſelf-intereſt in all the pleaſures and duties of benevolence, piety, and the moral ſenſe.

But then this refined ſelf-intereſt is neither ſo common, nor ſo conſpicuous in real life, as the groſs one, ſince it riſes late, is never of any great magnitude in the bulk of mankind, through their want of the previous pleaſures of ſympathy, religion, and the moral ſenſe, in a ſufficient degree, and in ſome it ſcarce prevails at all; whereas groſs ſelf-intereſt riſes early in infancy, and arrives at a conſiderable magnitude before adult age. The detail of this ſecond ſpecies of ſelf-intereſt may be ſeen in books of practical religion.

OF RATIONAL SELF-INTEREST.

The third ſpecies of ſelf-intereſt is the rational. This is the ſame thing with the abſtract deſire of happineſs, and averſion to miſery, which is ſuppoſed to attend every intelligent being during the whole courſe of his exiſtence. I have already endeavoured to ſhew, that this ſuppoſition is not true in the proper ſenſe of the words; and yet that very general deſires do frequently recur to the mind, and may be excited by words and ſymbols of general import.

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The hopes and fears relating to a future ſtate, or to death, which is our entrance into it, are of this kind, and may be conſidered as proceeding from rational ſelf-intereſt, in the higheſt and moſt abſtracted ſenſe that the terms admit of practically, ſince we have no definite knowledge of the nature and kind of the happineſs or miſery of another world. Theſe hopes and fears are alſo the ſtrongeſt of our ſelfiſh affections, and yet at the ſame time the chief foundation of the pure diſintereſted love of God, and of our neighbour, and the principal means of transferring our aſſociations, ſo as that we may love and hate, purſue and fly, in the manner the beſt ſuited to our attainment of our greateſt poſſible happineſs. For hope, being itſelf a pleaſure, may, by aſſociation, render indifferent, and even diſagreeable, objects and actions, pleaſant; and fear may make agreeable ones painful: hence we can either increaſe deſires and averſions, that are ſuitable to our ſtate or obliterate and convert them into their contraries, if they be unſuitable, by means of their connection with the hopes and fears of death, and a future ſtate. I will therefore briefly ſtate the riſe and progreſs of theſe hopes and fears.

All our firſt aſſociations with the idea of death are of the diſguſtful and alarming kind; and they are collected from all quarters, from the ſenſible pains of every ſort, from the imperfection, weakneſs, loathſomeneſs, corruption, and diſorder, where diſeaſe, old age, death animal or vegetable, prevail, in oppoſition to the beauty, order, and luſtre of life, youth, and health; from the ſhame and contempt attending the firſt in many inſtances; whereas the laſt are honourable, as being ſources of power and happineſs, the reward of virtue, &c. and from the ſympathetic paſſions in general. And it is neceſſary, that the heedleſſneſs and inexperience of infancy and youth ſhould be guarded by ſuch terrors, and their headſtrong appetites and paſſions curbed, that they may not be hurried into danger and deſtruction before they are aware. It is proper alſo, that they ſhould form ſome expectations with reſpect to, and ſet ſome value upon, their future life in this world, that ſo they may be better qualified to act their parts in it, and make the quicker progreſs to perfection during their paſſage through it.

When children begin to have a ſenſe of religion and duty formed in them, theſe do ſtill farther heighten and increaſe the fear of death for the moſt part. For though there are rewards on the one hand, as well as puniſhments on the other; yet fear has got the ſtart from the natural cauſes of it before-mentioned: and as pain is in general greater than pleaſure, as was ſhewn above, from its conſiſting in ſtronger vibrations; ſo fear is in general more vivid than hope, eſpecially in children.

Moreover, the ſenſual and ſelfiſh appetites are the original of all the reſt; yet theſe are ſinful, and inconſiſtent with our own and other's happineſs; they muſt therefore be reſtrained, and at laſt eradicated. But parents and governors, are, in this caſe, more apt to have recourſe to fear, than to hope (in general, I ſuppoſe with reaſon, becauſe hope is too feeble to withſtand the violence of the natural appetites and paſſions). And it is to be

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added to all, that adults, by diſcovering, in general, much more of fear and ſorrow in the apprehenſions or proſpect of death, than of hope and comfort, from the continuance of the cauſes juſt mentioned, propagate and increaſe the fear ſtill farther in one another, and in children, infecting all around them, as is uſual in other caſes of the like kind. And by this means it comes to paſs, that the fear of death does in ſome circumſtances, particularly where the nervous ſyſtem is, through a bodily diſorder, reduced to an aptneſs to receive uneaſy and diſguſtful vibrations, only or chiefly, being in a ſtate of irritability approaching to pain, grow to a moſt enormous ſize, collecting and uniting every diſagreeable idea and impreſſion under the aſſociations belonging to death; ſo that ſuch perſons live in perpetual anxiety and ſlavery to the fear of death. And where there is the conſciouſneſs of paſt guilt, or the want of an upright intention for the future, it rages with ſtill greater fierceneſs, till theſe be removed entirely, or in part, by repentance and amendment.

It is farther to be obſerved, that the fear of death is much increaſed by the exquiſiteneſs of the puniſhments threatened in a future ſtate, and by the variety of the emblems, repreſentations, analogies, and evidences, of natural and revealed religion, whereby all the terrors of all other things are transferred upon theſe puniſhments; alſo by that peculiar circumſtance of the eternity of them, which ſeems to have been a general tradition previous to the appearance of chriſtianity, amongſt both *Jews* and *Pagans*, and which has been the doctrine and opinion of the chriſtian world ever ſince, ſome very few perſons excepted. The conſideration of any thing that is infinite, ſpace, time, power, knowledge, goodneſs, perfection, &c. quite overpowers the faculties of the ſoul with wonder and aſtoniſhment: and when the peculiar feeling and concern belonging to *ſelf* are applied here, and excited by the word *infinite*, by meditation, reading, &c. we muſt, and we ought to be alarmed to the full extent of our capacities. And the ſame concluſion follows, though we ſhould ſuppoſe the puniſhments of a future ſtate not to be abſolutely and metaphyſically infinite. For their great exquiſiteneſs, and long duration, which are moſt clearly and plainly declared in the ſcriptures, make them practically ſo.

This is a brief ſketch of the origin and progreſs of the fears attending the conſideration of death, and a future ſtate. We now come to inquire, how the hopes are generated.

Firſt, then, We are to obſerve, that repentance, amendment, the conſciouſneſs of paſt virtue, and of good intentions for the future, give a title to the hopes and rewards of a future ſtate; and that though while there are perpetual alternations of oppoſite conſciouſneſſes, *i. e.* recollections and judgments on our own actions, the fear may prevail in general, both from the additional weight of the natural fear, and from the previous poſſeſſion which the religious fear has obtained; yet by degrees the agreeable conſciouſneſs muſt prevail in thoſe who are ſincere (and ſometimes it is to be feared a deluſive one of the ſame kind in others), moderate the religious fear by little and little, and, in great meaſure, overcome the natural one; for which the way has been

prepared

prepared from the ſuperior ſtrength of the religious fear, which has already obſcured it in ſerious perſons. And thus by degrees hope will begin to take place, as the general ſtate of the mind, and the conſideration of death, and a future ſtate, become, for the moſt part, matter of joy and comfort.

Secondly, The deliverance from the fear of death adds greatly to this joy, in the ſame way as the removal of other pains is made the ſource of pleaſure. And the returns of the fear of death at certain intervals, according to the ſtate of our bodies or minds, and the moral qualities of our actions, will, if they be not too frequent, keep up this ſource of pleaſure in the hope of futurity.

Thirdly, When the ſlaviſh fear of God is thus removed by faith and hope, all the pleaſing ſympathetic affections, ſuch as love, gratitude, confidence, begin to exert themſelves with reſpect to God, in a manner analogous, but a degree far ſuperior to that in which they are exerted towards men. And it is eaſy to ſee how theſe, and ſuch like cauſes concurring, may, in many caſes, quite overcome the natural and religious fears of death and pain, and even make them acceptable.

Cor. From hence we may paſs to the fervours of devotion; theſe being chiefly the hopes, and pleaſing affections, juſt ſpoken of, coaleſcing together ſo intimately by repeated aſſociations, as that the ſeparate parts there mentioned cannot be diſtinguiſhed from each other in the compound. And as theſe fervours are themſelves often eſteemed a ſign of holineſs, and conſequently a foundation of farther hope, they perpetuate and increaſe themſelves for a certain time, *i. e.* till the new convert finds the reiterated appearance of the ſame ideas give leſs and leſs emotion and pleaſure, juſt as in the other pleaſures, ſenſible and intellectual; looks upon this as a mark of ſpiritual deſertion; finds numberleſs, unexpected, unthought-of, ſins and imperfections, not yet ſubdued; falls into bodily diſorders, from unſeaſonable ſeverities, or ſpiritual intemperance, &c. and thus becomes dejected, ſcrupulous, and fearful.

By degrees the fears taken from death, and a future ſtate, are confined to the mere apprehenſion of tranſgreſſion, without any regard had to thoſe, and even where they, when conſidered and expected, raiſe no fears.

However, all theſe things mortify pride, and the refined ſelf-intereſt; lead, or even compel, men to reſign all to God; and ſo advance them to a more pure, diſintereſted, and permanent love of God, and of their neighbour, than they could have arrived at (all other things remaining the ſame), had they not undergone theſe anxieties; and therefore are to be eſteemed the kind corrections of an infinitely merciful Father.

SECT. IV.

OF THE PLEASURES AND PAINS OF SYMPATHY.

PROP. XCVII.

To examine how far the Pleaſures and Pains of Sympathy are agreeable to the foregoing Theory.

THE ſympathetic affections may be diſtinguiſhed into four claſſes, viz.
Firſt, Thoſe by which we rejoice at the happineſs of others.
Secondly, Thoſe by which we grieve for their miſery.
Thirdly, Thoſe by which we rejoice at their miſery.
And, Fourthly, Thoſe by which we grieve for their happineſs.

Of the firſt kind are ſociality, good-will, generoſity and gratitude. Of the ſecond, compaſſion and mercy. Of the third, moroſeneſs, anger, revenge, jealouſy, cruelty, and malice. And of the fourth, emulation and envy.

It is eaſy to be conceived, that aſſociation ſhould produce affections of all theſe four kinds, ſince in the intercourſes of life the pleaſures and pains of one are, in various ways, intermixed with, and dependent upon, thoſe of others, ſo as to have cluſters of their miniatures excited, in all the poſſible ways in which the happineſs or miſery of one can be combined with the happineſs or miſery of another, *i. e.* in the four above-mentioned. I will now enter upon the detail of the riſe and progreſs of each of them.

OF THE AFFECTIONS BY WHICH WE REJOICE AT THE HAPPINESS OF OTHERS.

The firſt of theſe is ſociality, or the pleaſure we take in the mere company and converſation of others, particularly of our friends and acquaintance, and which is attended with mutual affability, complaiſance, and candour. Now moſt of the pleaſures which children receive are conferred upon them by others, their parents, attendants, or play-fellows. And the number of the pleaſures which they receive in this way, is far greater than that of the pains brought upon them by others. Indeed the hurts, and bodily injuries, which they meet with, are chiefly from themſelves; and the denials of gratifications are either very few in number, or, if they be more frequent, give little uneaſineſs. It appears therefore, that, according to the doctrine of aſſociation, children ought to be pleaſed, in general, with the ſight and company of all their acquaintance.

acquaintance. And the ſame things, with ſome alterations hold in reſpect of adults, through the whole courſe, and general tenour of human life.

Beſides the pleaſures for which we are indebted to others, there are many which we enjoy in common with others, and in their company and converſation, and which therefore both enhance, and are enhanced by, the gaiety and happineſs that appear in the countenances, geſtures, words, and actions, of the whole company. Of this kind are the pleaſures of feaſting, ſports and paſtimes, rural ſcenes, polite arts, mirth, raillery, and ridicule, public ſhews, public rejoicings, &c. And in general it may be obſerved, that the cauſes of joy and grief are common to great numbers, affecting mankind according to the ſeveral diviſions and ſubdiviſions thereof into nations, ranks, offices, ages, ſexes, families, &c. And by all theſe things it comes to paſs, that the face of an old acquaintance brings to view, as it were, the indiſtinct mixed recollection, the remaining veſtiges of all the good and evil which we have felt, while his idea has been preſent with us.

The ſame obſervation may be made upon places; and particularly upon thoſe where a man has ſpent his infancy and youth.

To all this it is to be added, that the rules of prudence, good manners, and religion, by reſtraining all ruſticity, moroſeneſs, and inſolence, and obliging us to actions of a contrary nature, even though we have not the proper internal feelings, do by degrees contribute to beget theſe in us, *i. e.* to beget ſociality and complaiſance; juſt in the ſame manner, as a perſon in a paſſion becomes much more inflamed from his own angry expreſſions, geſtures, and actions.

Good-will, or benevolence, when underſtood in a limited ſenſe, may be termed that pleaſing affection which engages us to promote the welfare of others to the beſt of our power. If it carry us ſo far as to forego great pleaſures, or endure great pains it is called generoſity. But good-will and benevolence, in a general ſenſe, are put for all the ſympathetic affections of the firſt and ſecond claſs, viz. thoſe by which we either rejoice in, and promote, the happineſs of others, or grieve for, and endeavour to remove, their miſery; as ill-will and malevolence, underſtood in a general ſenſe alſo, are put for the contrary affections, viz. thoſe of the third and fourth claſs.

Benevolence, in the limited ſenſe, is nearly connected with ſociality, and has the ſame ſources. It has alſo a high degree of honour and eſteem annexed to it, procures us many advantages, and returns of kindneſs, both from the perſon obliged and others; and is moſt cloſely connected with the hope of reward in a future ſtate, and with the pleaſures of religion, and of ſelf-approbation, or the moral ſenſe. And the ſame things hold with reſpect to generoſity in a much higher degree. It is eaſy therefore to ſee, how ſuch aſſociations may be formed in us, as to engage us to forego great pleaſure, or endure great pain, for the ſake of others; how theſe aſſociations may be attended with ſo great a degree of pleaſure as to over-rule the poſitive pain endured, or the negative one from the foregoing of a pleaſure; and yet how there may be no direct,

explicit expectation of reward, either from God or man, by natural conſequence, or expreſs appointment, not even of the concomitant pleaſure which engages the agent to undertake the benevolent or generous action. And this I take to be a proof from the doctrine of aſſociation, that there is, and muſt be, ſuch a thing as pure diſintereſted benevolence; alſo a juſt account of the origin and nature of it.

Gratitude includes benevolence, and therefore has the ſame ſources with ſome additional ones; theſe laſt are the explicit or implicit recollection of the benefits and pleaſures received, the hope of future ones, the approbation of the moral character of the benefactor, and the pleaſures from the honour and eſteem attending gratitude, much enhanced by the peculiar baſeneſs and ſhamefulneſs of ingratitude.

OF THE AFFECTIONS BY WHICH WE GRIEVE FOR THE MISERY OF OTHERS.

Compaſſion is the uneaſineſs which a man feels at the miſery of another. Now this in children ſeems to be grounded upon ſuch aſſociations as theſe that follow: the very appearance and idea of any kind of miſery which they have experienced, or of any ſigns of diſtreſs which they underſtand, raiſe up in their nervous ſyſtems a ſtate of miſery from mere memory, on account of the ſtrength of their imaginations; and becauſe the connection between the adjuncts of pain, and the actual infliction of it, has not yet been ſufficiently broken by experience, as in adults.—When ſeveral children are educated together, the pains, the denials of pleaſures, and the ſorrows, which affect one, generally extend to all in ſome degree, often in an equal one.—When their parents, attendants, &c. are ſick or afflicted, it is uſual to raiſe in their minds the naſcent ideas of pains and miſeries, by ſuch words and ſigns as are ſuited to their capacities; they alſo find themſelves laid under many reſtraints on this account.—And when theſe and ſuch like circumſtances have raiſed the deſires and endeavours to remove the cauſes of theſe their own internal uneaſy feelings, or, which is the ſame thing, of theſe miſeries of others (in all which they are much influenced, as in other like caſes, by the great diſpoſition to imitate, before ſpoken of); and a variety of internal feelings and deſires of this kind are ſo blended and aſſociated together, as that no part can be diſtinguiſhed ſeparately from the reſt; the child may properly be ſaid to have compaſſion.

The ſame ſources of compaſſion remain, though with ſome alterations, during our whole progreſs through life; and an attentive perſon may plainly diſcern the conſtituent parts of his compaſſion, while they are yet the mere internal, and, as one may ſay, ſelfiſh feelings above-mentioned; and before they have put on the nature of compaſſion by coaleſcence with the reſt.

Agreeably to this method of reaſoning, it may be obſerved, that perſons whoſe nerves are eaſily irritable, and thoſe who have experienced great trials and afflictions, are, in general, more diſpoſed to compaſſion than others; and that we are moſt apt to

pity

pity in thoſe diſeaſes and calamities, which we either have felt already, or apprehend ourſelves in danger of feeling hereafter.

But adults have alſo many other ſources of compaſſion, beſides thoſe already mentioned, and which differ according to their educations and ſituations in life. When love, natural affection, and friendſhip, have taught men to take a peculiar delight in certain objects, in mutual endearments, and familiar intercourſes, thoſe miſeries affecting the beloved objects, which either totally deſtroy, or greatly interrupt, theſe intercourſes, muſt give an exquiſite uneaſineſs; and this uneaſineſs, by mixing itſelf with the other parts of our compaſſionate affections, will greatly increaſe the ſum total in reſpect of theſe beloved objects.—A compaſſionate temper being great matter of praiſe to thoſe who are endued with it, and the actions which flow from it being a duty incumbent on all, men are led to practiſe theſe actions, and to inculcate upon themſelves the motives of compaſſion, by attending to diſtreſs actually preſent, or deſcribed in hiſtory, real or fictitious.—The peculiar love and eſteem which we bear to morally good characters, make us more ſenſibly touched with their miſeries; which is farther augmented by our indignation, and want of compaſſion for morally ill characters, ſuffering the juſt puniſhment of their crimes. In like manner, the ſimplicity, the ignorance, the helpleſſneſs, and the many innocent diverting follies of young children, and of ſome brutes, lead men to pity them in a peculiar manner.

Mercy has the ſame general nature and ſources as compaſſion, and ſeems to differ from it only in this, that the object of it has forfeited his title to happineſs, or the removal of miſery, by ſome demerit, particularly againſt ourſelves. Here, therefore, reſentment for an injury done to ourſelves, or what is called a juſt indignation againſt vice in general, interferes, and checks the otherwiſe natural courſe of our compaſſion, ſo as, in the unmerciful, entirely to put a ſtop to it. But, in the merciful, the ſources of compaſſion prevail over thoſe of reſentment and indignation; whence it appears, that the compaſſion required in acts of mercy, is greater than that in common acts of mere compaſſion: agreeably to which, it is obſervable, that mercy is held in higher eſteem, than mere compaſſion.

OF THE AFFECTIONS BY WHICH WE REJOICE AT THE MISERY OF OTHERS.

We come now to the affections of the third claſs, viz. moroſeneſs, anger, revenge, jealouſy, cruelty, and malice. Now moroſeneſs, peeviſhneſs, ſeverity, &c. are moſt apt to ariſe in thoſe perſons who have ſome real or imaginary ſuperiority over others, from their rank, years, office, accompliſhments, &c. which either magnifies the failures of duty in inferiors with reſpect to them, or engages them to be very attentive to theſe.—Bodily infirmities, and frequent diſappointments, by making the common intercourſes of life inſipid, and enhancing ſmall injuries; delicacy and effeminacy, by increaſing the ſenſibility both of body and mind, with reſpect to pain and uneaſineſs;

luxury,

luxury, by begetting unnatural cravings, which claſh not only with the like cravings of others, but alſo with the common courſe and conveniencies of human life; and, in ſhort, all kinds of ſelfiſhneſs; have the ſame ill effect upon the temper.—The ſevere ſcrutiny which earneſt penitents make into their own lives, during their novitiate, and the rigid cenſures which they paſs upon their own actions, are often found, in proud and paſſionate tempers, to raiſe ſuch indignation againſt vice, as breaks out into an undue ſeverity of language and behaviour, in reſpect of others; and this eſpecially, if they ſeem to themſelves to have overcome all great vices, and are not yet arrived at a juſt ſenſe of the many latent corruptions ſtill remaining in them. And this is much increaſed by all opinions which repreſent the Deity as implacable towards a part of mankind, and this part as reprobate towards him. By all which we may ſee, that every thing which makes diſagreeable impreſſions upon our minds at the ſame time that our fellow-creatures, or their ideas, are preſent with us; and eſpecially if theſe be linked together in the way of cauſe and effect, or by any ſuch relation; will, in fact, beget in us moroſeneſs and peeviſhneſs. This follows from the doctrine of aſſociation; and is alſo an evident fact. It is likewiſe a ſtrong argument for cheerfulneſs, and the pleaſures of innocent moderate mirth.

Anger and cruelty are the oppoſites to mercy and compaſſion; the firſt, as a ſudden ſtart of paſſion, by which men wiſh and endeavour harm to others, and rejoice in it when done; which is revenge: the latter as a more ſettled habit of mind, diſpoſing men to take a delight in inflicting miſery and puniſhment, and in ſatiating their thirſt after theſe, by beholding the tortures and anguiſh of the ſufferers.

Anger and revenge may be analyſed as follows. The appearance, idea, approach, actual attack, &c. of any thing from which a child has received harm, muſt raiſe in his mind, by the law of aſſociation, a miniature trace of that harm. The ſame harm often ariſes from different cauſes, and different harms from the ſame cauſe: theſe harms and cauſes have an affinity with each other: and thus they are variouſly mixed and connected together; ſo as that a general confuſed idea of harm, with the uneaſy ſtate of the nervous ſyſtem, and the conſequent activity of the parts, are raiſed up in young children upon certain appearances and circumſtances. By degrees the denial of gratifications, and many intellectual aggregates, with all the ſigns and tokens of theſe, raiſe up a like uneaſineſs, in the manner before explained. And thus it happens, that when any harm has been received, any gratification denied, or other mental uneaſineſs occaſioned, a long train of aſſociated remainders of painful impreſſions enhance the diſpleaſure, and continue it much beyond its natural period. This is the naſcent ſtate of the paſſion of anger, in which it is nearly allied to fear, being the continuance of the ſame internal feelings, quickened, on one hand, by the actual, painful, or uneaſy impreſſion, but moderated on the other by the abſence of the apprehenſion of future danger.

By

By degrees the child learns, from obſervation and imitation, to uſe various muſcular exertions, words, geſtures, &c. in order to ward off or remove the cauſes of uneaſineſs or pain, ſo as to ſtrike, talk loud, threaten, &c. and ſo goes on multiplying perpetually, by farther and farther aſſociations, both the occaſions of anger, and the expreſſions of it; and particularly aſſociates a deſire of hurting another with the apprehenſion, or the actual receiving, of harm from that other.

As men grow up to adult age, and diſtinguiſh living creatures from things inanimate, rational and moral agents from irrational ones, they learn to refer effects to their ultimate cauſes; and to conſider all the intermediate ones as being themſelves effects, depending on the ultimate cauſe. And thus their reſentment paſſes from the inanimate inſtrument to the living agent; and more eſpecially, if the living agent be a rational and moral one. For, Firſt, Living rational agents are alone capable of being reſtrained by threatenings and puniſhments from committing the injurious action. All our expreſſions of anger muſt therefore be directed againſt them.—Secondly, Inanimate things are incapable of feeling the harms which anger wiſhes: the deſire of revenge muſt therefore be entirely confined to animals. And theſe two things have great influence on each other. Our threatening harm merely from a motive of ſecurity, leads us to wiſh it really; wiſhing it leads us to threaten and inflict it, where it can afford no ſecurity or advantage to us.—Thirdly, As we improve in obſervation and experience, and in the faculty of analyſing the actions of animals, we perceive that brutes and children, and even adults in certain circumſtances, have little or no ſhare in the actions referred to them; but are themſelves under the influence of other cauſes, which therefore are to be deemed the ultimate ones. Hence, our reſentment againſt them muſt be much abated in theſe caſes, and transferred to the ultimate living cauſe, uſually called the free agent, if ſo be that we are able to diſcover him.—Laſtly, when the moral ideas of juſt and unjuſt, right and wrong, merit and demerit, have been acquired, and applied to the actions and circumſtances of human life in the manner to be hereafter deſcribed, the internal feelings of this claſs, *i. e.* the complacency and approbation attending the firſt, the diſguſt, diſapprobation, and even abhorrence, attending the laſt, have great influence in moderating or increaſing our reſentment. The aſſociations of the firſt kind are at utter variance with thoſe ſuggeſted by the ſenſe of pain; of the laſt, coincide with and ſtrengthen it. And as the rectitude of the moral ſenſe is the higheſt matter of encomium, men are aſhamed not to be thought to ſubmit all their private feelings to its ſuperior authority, and acquieſce in its determinations. And thus, by degrees, all anger and reſentment in theory, all that even ill men will attempt to juſtify, is confined to injury, to ſufferings which are not deſerved, or which are inflicted by a perſon who has no right to do it And this at laſt makes it ſo in fact, to a great degree, amongſt thoſe who are much influenced by their own moral ſenſe, or by that of others. Yet ſtill, as a confirmation of the foregoing doctrine, it is eaſy to obſerve, that many perſons are apt to be offended even with ſtocks and ſtones, with brutes, with hurts merely

merely accidental and undeſigned, and with puniſhments acknowledged to be juſtly inflicted; and this in various degrees, according to the various natural and acquired diſpoſitions of their minds.

Cruelty and malice are conſidered, not as paſſions of the mind, but as habits, as the deliberate wiſhing of miſery to others, delighting in the view and actual infliction of it, and this without the conſideration of injury received or intended. However, it will eaſily appear, that they are the genuine and neceſſary offspring of anger indulged and gratified. They are moſt apt to ariſe in proud, ſelfiſh, and timorous perſons, thoſe who conceive highly of their own merits, and of the conſequent injuſtice of all offences againſt them; and who have an exquiſite feeling and apprehenſion, in reſpect of private gratifications and uneaſineſſes. The low and unhappy condition of thoſe around a man gives a dignity to his own; and the infliction of puniſhment, or mere ſuffering, ſtrikes a terror, and ſo affords ſecurity and authority. Add to theſe, the pleaſures ariſing from gratifying the will before explained, and perhaps ſome from mere curioſity, and the rouſing an obdurate callous mind to a ſtate of ſenſibility. Thus we may perceive how nearly one ill paſſion is related to another; and that it is poſſible for men to arrive at laſt at ſome degree of pure diſintereſted cruelty and malice.

The jealouſy againſt a rival in the affections of a beloved perſon of the other ſex; alſo that peculiar reſentment againſt this beloved perſon, when ſuſpected to be unfaithful, which goes by the ſame name; are eaſily deducible from their ſources, in the manner ſo often repeated. And it is owing to the extraordinary magnitude of the paſſions and pleaſures between the ſexes, and the ſingular contempt and ridicule thrown upon the perſon deſpiſed and deceived (the laſt of which ſprings from the firſt), that theſe two ſorts of jealouſy riſe to ſuch a height. This is more peculiarly remarkable in the ſouthern climates, where the paſſions between the ſexes are more violent than amongſt us. The nature and origin of jealouſies and ſuſpicions of other kinds, with the affections attending them, may eaſily be underſtood from what has been already advanced.

OF THE AFFECTIONS BY WHICH WE GRIEVE FOR THE HAPPINESS OF OTHERS.

Emulation and envy make the fourth claſs of the ſympathetic affections. Theſe are founded in the deſire of pleaſures, honours, riches, power, &c. and the conſequent engroſſing what others deſire, loſing what they obtain, in a compariſon of our own acquiſitions with thoſe of others, &c. by which the happineſs of others is connected with our miſery; ſo that at laſt we become uneaſy at their happineſs, even where there is no ſuch connection, *i. e.* emulate and envy where our own intereſt is no ways concerned.

Having now ſeen, in ſome meaſure, the nature and origin of the principal ſympathetic affections, pleaſing and tormenting, moral and immoral, let us conſider the ſeveral objects upon which theſe various and contrary affections are exerted.

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I begin with the moſt intimate of all the relations of life; that of huſband and wife. Where this union is cemented by the ſeveral pleaſures of ſenſation and imagination before-mentioned, alſo by thoſe of the moral and religious kinds hereafter to be deſcribed, love, generoſity, gratitude, compaſſion, and all the affections of the firſt and ſecond claſs, prevail in the higheſt degree poſſible, to the excluſion of all thoſe of the third and fourth claſs; ſo that the marriage-ſtate, in theſe caſes, affords the moſt perfect earneſt and pattern, of which our imperfect condition here admits, of the future happineſs of the good in another world. And it is remarkable, that this ſtate is in ſcripture made the emblem of future happineſs, and of the union of Chriſt with the church.

Where the ties of affection are weaker, and particularly where there is a great deficiency in the moral or religious diſpoſitions of either or both the parties, the paſſions of the third claſs intermix themſelves with thoſe of the firſt and ſecond; and, in many caſes, the oppoſite affections prevail in great degrees alternately, and even at ſhort and frequent intervals. And indeed each kind often becomes more violent from ſucceeding its oppoſite.

In very immoral and wicked perſons the paſſions of the third claſs prevail almoſt entirely, and that eſpecially where the peculiar affection, called love by young perſons, and which ſprings from the pleaſures of ſenſation, imagination, and ambition, in the manner above explained, was originally weak.

The affection of parents towards children ſeems to begin from the pain which the mother feels in bringing them into the world, and the ſympathetic fears and cares of the father in conſequence thereof, and in ſome degree from children's being ſuppoſed to belong to their parents in a very peculiar ſenſe, and being parts of their own bodies. It is increaſed, eſpecially in mothers, by all the ſigns of life, ſenſe, and diſtreſs, which the helpleſs tender infant ſhews; many religious and moral conſiderations, with the language in which theſe are expreſſed, adding alſo great force thereto. The giving ſuck in the mother, with all the fears and cares in both parents, increaſes it ſtill farther; and as the child advances in age and underſtanding, diverts by his little follies, pleaſes by his natural beauty, draws on the encomiums of others, ſurprizes by his agility or wit, &c. the affections continue to riſe. When the time comes for the cultivation of the moral and religious powers of the mind, theſe either increaſe the affection by their proper appearance and growth, or check it by being deficient, and by giving occaſion to cenſures and corrections. Yet even theſe laſt, when juſtly proportioned, and followed by mental improvement, add greatly to the warmth of affection by raiſing compaſſion. And thus the remainders of former affections, and the acceſſions of new ones, ſeem to make a ſum total, which grows perpetually greater in tender and religious parents.

The little affection commonly ſhewn to baſtards agrees very well with the foregoing hiſtory of parental affection.

The affection towards grand-children is, in general, the ſame as that towards children, differing chiefly in this, that it is more fond and tender, and leſs mixed with ſeverity, and the neceſſary corrections. This may be, perhaps, becauſe the appearance of the helpleſs infant, after ſo long an interval, raiſes up all the old traces of parental affection with new vigour, from their not having been exerted for ſome years, and by recalling many of the moſt moving ſcenes of the foregoing life; ſo that theſe old traces, increaſed by the addition of new ſimiliar ones, make together a greater ſum total than before: or, perhaps, becauſe old perſons have more experience of pain, ſorrow, and infirmity; and ſo are more diſpoſed to compaſſion, in the ſame manner as they are more apt to weep; and becauſe they excuſe themſelves from the uneaſy taſk of cenſuring and reproving.

The affections of children towards their parents are founded in the many pleaſures which they receive from them, or in their company. Theſe affections are afterwards increaſed by their improvement in morality and religion, and by the ſeveral common cauſes of good-will, gratitude, compaſſion, &c. prevailing here with peculiar force. It ſeems, however, that the ſources of this affection are fewer and weaker than the ſources of that towards children; and it is obſerved in fact, that the affection of children is in general weaker than that of parents. For which alſo an evident final cauſe may be aſſigned. It is to be added farther, that the many engagements and diſtractions, which lay hold of the opening faculties of young perſons, upon their entrance into life, have a principal ſhare in this effect.

Friendſhip, with the bitter enmities that ſometimes ſucceed the breaches of it, and the emulation and envy that are apt to ariſe in friends, from the equality and ſimilarity of their circumſtances, may be eaſily underſtood from what has been delivered already.

In like manner we may explain the affections between perſons of the ſame family, brothers, couſins, &c. of the ſame age, ſex, diſtrict, education, temper, profeſſion, &c.

By all theſe artificial ties our good-will and compaſſion are perpetually extended more and more, growing alſo perpetually weaker and weaker, in proportion to their diffuſion. Yet ſtill the common bleſſings and calamities, which fall upon whole nations and communities; the general reſemblance of the circumſtances of all mankind to each other, in their paſſage through life; their common relation to God as their creator, governor, and father; their common concern in a future life, and in the religion of Chriſt, &c. are capable of raiſing ſtrong ſympathetic affections towards all mankind, and the ſeveral larger diviſions of it, in perſons of religious diſpoſitions, who duly attend to theſe things. In like manner the opinions of ſavageneſs, barbarity, and cruelty, which ignorant and unexperienced perſons are apt to entertain, concerning ſome diſtant nations, raiſe up in their minds ſome degrees of general diſlike, averſion, and hatred.

SECT.

SECT. V.

OF THE PLEASURES AND PAINS OF THEOPATHY.

PROP. XCVIII.

To examine how far the Pleaſures and Pains of Theopathy are agreeable to the foregoing Theory.

UNDER this claſs I comprehend all thoſe pleaſures and pains, which the contemplation of God, and his attributes, and of our relation to him, raiſes up in the minds of different perſons, or in that of the ſame perſon at different times. And in order to ſpeak with more preciſion concerning this claſs of affections, and to deduce them more readily from the theory of theſe papers, it will be proper firſt to inquire into the idea of God, as it is found in fact amongſt men, particularly amongſt *Jews* and *Chriſtians*, *i. e.* to inquire what aſſociations may be obſerved in fact to be heaped upon, and concur in this word, and the equivalent and related terms and phraſes.

Firſt, then, It is probable, that, ſince many actions and attributes belonging to men are, and indeed muſt be, in common language, applied to God, children, in their firſt attempts to decypher the word God, will ſuppoſe it to ſtand for a man, whom they have never ſeen, and of whom conſequently they form a compound fictitious idea, conſiſting of parts before generated by men, whom they have ſeen.

Secondly, When they hear or read, that God reſides in heaven (*i. e.* according to their conceptions, in the ſky, amongſt the ſtars), that he made all things, that he ſees, hears, and knows all things, can do all things, &c. with the many particular modes of expreſſion that are comprehended under theſe general ones, vivid ideas, which ſurprize and agitate the mind (lying upon the confines of pain), are raiſedin it; and if they be ſo far advanced in underſtanding, as to be affected with apparent inconſiſtencies and impoſſibilities in their ideas, they muſt feel great perplexity of imagination, when they endeavour to conceive and form definite ideas agreeable to the language of this kind, which they hear and read. Now this perplexity will add to the vividneſs of the ideas, and all together will transfer upon the word God, and its equivalents, ſuch ſecondary ideas, as may be referred to the heads of magnificence, aſtoniſhment, and reverence.

Thirdly, When children hear that God cannot be ſeen, having no viſible ſhape, no parts; but that he is a ſpiritual infinite being; this adds much to their perplexity and

aſtoniſhment, and by degrees deſtroys the aſſociation of the fictitious viſible idea before-mentioned with the word God. However, it is probable, that ſome viſible ideas, ſuch as thoſe of the heavens, a fictitious throne placed there, a multitude of angels, &c. ſtill continue to be excited by the word God, and its equivalents, when dwelt upon in the mind.

Fourthly, When the child hears, that God is the rewarder of good actions, and the puniſher of evil ones, and that the moſt exquiſite future happineſs or miſery (deſcribed by a great variety of particulars and emblems) are prepared by him for the good and bad reſpectively; he feels ſtrong hopes and fears riſe alternately in his mind, according to the judgment which he paſſes upon his own actions, founded partly upon the previous judgment of others, partly upon an imperfect moral ſenſe begun to be generated in him.

And laying all theſe things together it will appear, that amongſt *Jews* and *Chriſtians*, children begin probably with a definite viſible idea of God; but that by degrees this is quite obliterated, without any thing of a ſtable preciſe nature ſucceeding in its room; and that, by farther degrees, a great variety of ſtrong ſecondary ideas, *i. e.* mental affections (attended indeed by viſible ideas, to which proper words are affixed, as of angels, the general judgment, &c.) recur in their turns, when they think upon God, *i. e.* when this word, or any of its equivalents, or any equivalent phraſe or ſymbol, ſtrike the mind ſtrongly, ſo that it dwells upon them for a ſufficient time, and is affected by them in a ſufficient degree.

Amongſt heathen nations, where idolatry and polytheiſm prevail, the caſe is different; but this difference may eaſily be underſtood by applying the foregoing method of reaſoning to the circumſtances of the heathen world.

I will now inquire more particularly into the nature and origin of the affections exerted towards God. They may be ranked under two general heads, love and fear; agreeably to the general diviſion of the ſympathetic affections into benevolence and malevolence. However, the analogy here is not a complete one, as will be ſeen preſently.

To the love of God may be referred gratitude, confidence and reſignation; alſo enthuſiaſm, which may be conſidered as a degeneration of it. To the fear, reverence (which is a mixture of love and fear); alſo ſuperſtition and atheiſm, which are degenerations of the fear of God.

OF THE LOVE OF GOD.

The love of God, with its aſſociates, gratitude, confidence and reſignation, is generated by the contemplation of his bounty and benignity to us, and to all his creatures, as theſe appear from the view of the natural world, the declarations of the ſcriptures, or a man's own obſervation and experience in reſpect of the events of life. It is

ſupported,

ſupported, and much increaſed, by the conſciouſneſs of upright intentions, and ſincere endeavours, with the conſequent hope of a future reward, and by prayer, vocal and mental, public and private, inaſmuch as this gives a reality and force to all the ſecondary ideas before ſpoken of. Frequent converſation with devout perſons, and frequent reading of devout books, have great efficacy alſo, from the infectiouſneſs of our tempers and diſpoſitions, and from the perpetual recurrency of the proper words, and of their ſecondary ideas; firſt in a faint ſtate, afterwards in a ſtronger and ſtronger perpetually. The contemplation of the reſt of the divine attributes, his omnipotence, omniſcience, eternity, ubiquity, &c. have alſo a tendency to ſupport and augment the love of God, when this is ſo far advanced, as to be ſuperior to the fear; till that time theſe wonderful attributes enhance the fear ſo much, as to check the riſe and growth of the love for a time. Even the fear itſelf contributes to the generation and augmentation of the love in an eminent degree, and in a manner greatly analogous to the production of other pleaſures from pains. And indeed it ſeems, that, notwithſtanding the variety of ways above-mentioned, in which the love of God is generated, and the conſequent variety of the intellectual aggregates, and ſecondary ideas, there muſt be ſo great a reſemblance amongſt them, that they cannot but languiſh by frequent recurrency, till ſuch time as ideas of an oppoſite nature, by intervening at certain ſeaſons, give them new life.

The love of God is, according to this theory, evidently deduced in part from intereſted motives directly, viz. from the hopes of a future reward; and thoſe motives to it, or ſources of it, in which direct explicit ſelf-intereſt does not appear, may yet be analyſed up to it ultimately, however, after all the ſeveral ſources of the love of God have coaleſced together, this affection becomes as diſintereſted as any other; as the pleaſure we take in any natural or artificial beauty, in the eſteem of others, or even in ſenſual gratifications.

It appears alſo, that this pure diſintereſted love of God may, by the concurrence of a ſufficient number of ſufficiently ſtrong aſſociations, ariſe to ſuch a height, as to prevail over any of the other deſires intereſted or diſintereſted; for all, except the ſenſual ones, are of a factitious nature, as well as the love of God; and the ſenſual ones are, in our progreſs through life, overpowered by them all in their reſpective turns.

Euthuſiaſm may be defined a miſtaken perſuaſion in any perſon, that he is a peculiar favourite with God; and that he receives ſupernatural marks thereof. The vividneſs of the ideas of this claſs eaſily generates this falſe perſuaſion in perſons of ſtrong fancies, little experience in divine things, and narrow underſtandings (and eſpecially where the moral ſenſe, and the ſcrupuloſity attending its growth and improvement, are but imperfectly formed), by giving a reality and certainty to all the reveries of a man's own mind, and cementing the aſſociations in a preternatural manner. It may alſo be eaſily contracted by contagion, as daily experience ſhews; and indeed more eaſily than moſt

moſt other diſpoſitions from the glaring language uſed by enthuſiaſts, and from the great flattery and ſupport, which enthuſiaſm affords to pride and ſelf-conceit.

OF THE FEAR OF GOD.

The fear of God ariſes from a view of the evils of life, from the threatenings of the ſcriptures, from the ſenſe of guilt, from the infinity of all God's attributes, from prayer, meditation, reading, and converſation upon theſe and ſuch like ſubjects, in a manner analogous to the love of God. When confined within certain limits, and eſpecially when tempered with love, ſo as to become awe, veneration and reverence, it remains in a natural ſtate, *i. e.* ſuits our other circumſtances; and, as before obſerved, has a conſiderable ſhare in generating the love of God. When exceſſive, or not duly regarded, it degenerates either into ſuperſtition or atheiſm.

Superſtition may be defined a miſtaken opinion concerning the ſeverity and puniſhments of God, magnifying theſe in reſpect of ourſelves or others. It may ariſe from a ſenſe of guilt, from bodily indiſpoſition, from erroneous reaſoning, &c. That which ariſes from the firſt cauſe has a tendency to remove itſelf by regulating the perſon's behaviour, and conſequently leſſening his ſenſe of guilt. The other kinds often increaſe for a time, come to their height at laſt, and then decline again. They do alſo, in ſome caſes, increaſe without limits during life. All kinds of ſuperſtition have been productive of great abſurdities in divine worſhip, both amongſt *Pagans*, and amongſt *Jews* and *Chriſtians*; and they have all a great tendency to ſour the mind, to check natural benevolence and compaſſion, and to generate a bitter perſecuting ſpirit. All which is much augmented where ſuperſtition and enthuſiaſm paſs alternately into each other at intervals; which is no uncommon caſe.

Under atheiſm I here comprehend not only the ſpeculative kind, but the practical, or that neglect of God, where the perſon thinks of him ſeldom, and with reluctance, and pays little or no regard to him in his actions, though he does not deny him in words. Both kinds ſeem in chriſtian countries, where reaſonable ſatisfaction in religious matters is eaſy to be had by all well-diſpoſed minds, and groſs ignorance uncommon except in ill-diſpoſed ones, to proceed from an explicit or implicit ſenſe of guilt, and a conſequent fear of God, ſufficient to generate an averſion to the thoughts of him, and to the methods by which the love might be generated, and yet too feeble to reſtrain from guilt; ſo that they may properly be conſidered as degenerations of the fear of God. What has been delivered already in theſe papers, concerning the connection of fear, averſion, and the other uneaſy paſſions, with each other, and alſo of the tendency of all pain to prevent the recurrency of the circumſtances, by which it is introduced, may afford ſome light here.

It appears upon the whole, that the theopathetic affections are, in ſome things, analogous to the ſympathetic ones, as well as different in others; and that this difference ariſes chiefly from the infinity and abſolute perfection of the divine nature.

Affections

Affections of an intermediate kind are generated in reſpect of good and evil beings of an inviſible nature, and of an order ſuperior to us (ſuch as angels and devils); whoſe origin and growth will eaſily be underſtood from what is here delivered.

SECT. VI.

OF THE PLEASURES AND PAINS OF THE MORAL SENSE.

PROP. XCIX.

To examine how far the Pleaſures and Pains of the moral Senſe are agreeable to the foregoing Theory.

THERE are certain tempers of mind, with the actions flowing from them, as of piety, humility, reſignation, gratitude, &c. towards God; of benevolence, charity, generoſity, compaſſion, humility, gratitude, &c. towards men; of temperance, patience, contentment, &c. in reſpect of a perſon's own private enjoyments or ſufferings; which when he believes himſelf to be poſſeſſed of, and reflects upon, a pleaſing conſciouſneſs and ſelf-approbation riſe up in his mind, excluſively of any direct explicit conſideration of advantage likely to accrue to himſelf, from his poſſeſſion of theſe good qualities. In like manner the view of them in others raiſes up a diſintereſted love and eſteem for thoſe others. And the oppoſite qualities of impiety, profaneneſs, uncharitableneſs, reſentment, cruelty, envy, ingratitude, intemperance, lewdneſs, ſelfiſhneſs, &c. are attended with the condemnation both of ourſelves and others. This is, in general, the ſtate of the caſe; but there are many particular differences, according to the particular education, temper, profeſſion, ſex, &c. of each perſon.

Or, which is the ſame thing, the ſecondary ideas belonging to virtue and vice, duty and ſin, innocence and guilt, merit and demerit, right and wrong, moral good and moral evil, juſt and unjuſt, fit and unfit, obligation and prohibition, &c. in one man, bear a great reſemblance to thoſe belonging to the ſame words in another, or to the correſponding words, if they have different languages; and yet do not exactly coincide, but differ more or leſs, according to the difference in education, temper, &c.

Now both this general reſemblance, and theſe particular differences, in our ideas, and conſequent approbation or diſapprobation, ſeem to admit of an analyſis and explanation from the following particulars.

Firſt, Children are, for the moſt part, inſtructed in the difference and oppoſition between virtue and vice, duty and ſin, &c. and have ſome general deſcriptions of the

virtues

virtues and vices inculcated upon them. They are told, that the firſt are good, pleaſant, beautiful, noble, fit, worthy of praiſe and reward, &c. the laſt odious, painful, ſhameful, worthy of puniſhment, &c. ſo that the pleaſing and diſpleaſing aſſociations, previouſly annexed to theſe words in their minds, are, by means of that confidence which they place in their ſuperiors, transferred upon the virtues and vices reſpectively. And the mutual intercourſes of life have the ſame effect in a leſs degree, with reſpect to adults, and thoſe children who receive little or no inſtruction from their parents or ſuperiors. Virtue is in general approved, and ſet off by all the encomiums, and honourable appellations, that any other thing admits of, and vice loaded with cenſures and reproaches of all kinds, in all good converſation and books. And this happens oftener than the contrary, even in bad ones; ſo that as far as men are influenced in their judgments by thoſe of others, the balance is, upon the whole, on the ſide of virtue.

Secondly, There are many immediate good conſequences, which attend upon virtue, as many ill ones do upon vice, and that during our whole progreſs through life. Senſuality and intemperance ſubject men to diſeaſes and pain, to ſhame, deformity, filthineſs, terrors, and anxieties; whereas temperance is attended with eaſe of body, freedom of ſpirits, the capacity of being pleaſed with the objects of pleaſure, the good opinion of others, the perfection of the ſenſes, and of the faculties bodily and mental, long life, plenty, &c. Anger, malice, envy, bring upon us the returns of anger, malice, envy, from others, with injuries, reproaches, fears, aud perpetual diſquietude; and in like manner good-will, generoſity, compaſſion, are rewarded with returns of the ſame, with the pleaſures of ſociality and friendſhip, with good offices, and with the higheſt encomiums. And when a perſon becomes properly qualified by the previous love of his neighbour to love God, to hope and truſt in him, and to worſhip him in any meaſure as he ought to do, this affords the ſincereſt joy and comfort; as, on the contrary, the neglect of God, or practical atheiſm, the murmuring againſt the courſe of Providence, ſceptical unſettledneſs, and fool-hardy impiety, are evidently attended with great anxieties, gloomineſs, and diſtraction, as long as there are any traces of morality or religion left upon men's minds. Now theſe pleaſures and pains, by often recurring in various combinations, and by being variouſly transferred upon each other, from the great affinity between the ſeveral virtues, and their rewards, with each other; alſo between the ſeveral vices, and their puniſhments, with each other; will at laſt beget in us a general, mixed, pleaſing idea and conſciouſneſs, when we reflect upon our own virtuous affections or actions; a ſenſe of guilt, and an anxiety, when we reflect on the contrary; and alſo raiſe in us the love and eſteem of virtue, and the hatred of vice in others.

Thirdly, The many benefits which we receive immediately from, or which have ſome evident, though diſtant, connection with the piety, benevolence, and temperance of others; alſo the contrary miſchiefs from their vices; lead us firſt to the love and

hatred

hatred of the perſons themſelves by aſſociation, as explained under the head of ſympathy, and then by farther aſſociations to the love and hatred of the virtues and vices, conſidered abſtractedly, and without any regard to our own intereſt; and that whether we view them in ourſelves or others. As our love and eſteem for virtue in others is much increaſed by the pleaſing conſciouſneſs, which our own practice of it affords to ourſelves, ſo the pleaſure of this conſciouſneſs is much increaſed by our love of virtue in others.

Fourthly, The great ſuitableneſs of all the virtues to each other, and to the beauty, order, and perfection of the world, animate and inanimate, impreſſes a very lovely character upon virtue; and the contrary ſelf-contradiction, deformity, and miſchievous tendency of vice, render it odious, and matter of abhorrence to all perſons that reflect upon theſe things; and beget a language of this kind, which is borrowed, in great meaſure, from the pleaſures and pains of imagination, and applied with a peculiar force and fitneſs to this ſubject from its great importance.

Fifthly, The hopes and fears which ariſe from the conſideration of a future ſtate, are themſelves pleaſures and pains of a high nature. When therefore a ſufficient foundation has been laid by a practical belief of religion, natural and revealed, by the frequent view of, and meditation upon, death, by the loſs of departed friends, by bodily pains, by worldly diſappointments and afflictions, for forming ſtrong aſſociations of the pleaſures of theſe hopes with duty, and the pains of theſe fears with ſin, the reiterated impreſſions of thoſe aſſociations will at laſt make duty itſelf a pleaſure, and convert ſin into a pain, giving a luſtre and deformity reſpectively to all their appellations; and that without any expreſs recollection of the hopes and fears of another world, juſt as in other caſes of aſſociation.

Sixthly, All meditations upon God, who is the inexhauſtible fountain, and infinite abyſs, of all perfection, both natural and moral; alſo all the kinds of prayer, *i. e.* all the ways of expreſſing our love, hope, truſt, reſignation, gratitude, reverence, fear, deſire, &c. towards him; transfer by aſſociation, all the perfection, greatneſs, and glorioufneſs of his natural attributes upon his moral ones, *i. e.* upon moral rectitude. We ſhall by this means learn to be merciful, holy, and perfect, becauſe God is ſo; and to love mercy, holineſs, and perfection, wherever we ſee them.

And thus we may perceive, that all the pleaſures and pains of ſenſation, imagination, ambition, ſelf-intereſt, ſympathy, and theopathy, as far as they are conſiſtent with one another, with the frame of our natures, and with the courſe of the world, beget in us a moral ſenſe, and lead us to the love and approbation of virtue, and to the fear, hatred, and abhorrence of vice. This moral ſenſe therefore carries its own authority with it, inaſmuch as it is the ſum total of all the reſt, and the ultimate reſult from them; and employs the force and authority of the whole nature of man againſt any

particular part of it, that rebels againſt the determinations and commands of the conſcience or moral judgment.

It appears alſo, that the moral ſenſe carries us perpetually to the pure love of God, as our higheſt and ultimate perfection, our end, centre, and only reſting-place, to which yet we can never attain.

When the moral ſenſe is advanced to conſiderable perfection, a perſon may be made to love and hate, merely becauſe he ought, *i. e.* the pleaſures of moral beauty and rectitude, and the pains of moral deformity and unfitneſs, may be transferred, and made to coaleſce almoſt inſtantaneouſly.

Scrupuloſity may be conſidered as a degeneration of the moral ſenſe, reſembling that by which the fear of God paſſes into ſuperſtition; for it ariſes, like this, from a conſciouſneſs of guilt, explicit or implicit, from bodily indiſpoſition, and from an erroneous method of reaſoning. It has alſo a moſt intimate connection with ſuperſtition (juſt as moral rectitude has with the true love and fear of God); and, like ſuperſtition, it is, in many caſes, obſerved to work its own cure by rectifying what is amiſs; and ſo by degrees removing both the explicit and implicit conſciouſneſs of guilt. It ſeems alſo, that in this imperfect ſtate men ſeldom arrive at any great degree of correctneſs in their actions without ſome previous ſcrupuloſity, by which they may be led to eſtimate the nature and conſequences of affections and actions with care, impartiality and exactneſs.

The moral ſenſe or judgment here ſpoken of, is ſometimes conſidered as an inſtinct, ſometimes as determinations of the mind, grounded on the eternal reaſons and relations of things. Thoſe who maintain either of theſe opinions may, perhaps, explain them ſo as to be conſiſtent with the foregoing analyſis of the moral ſenſe from aſſociation. But if by inſtinct be meant a diſpoſition communicated to the brain, and in conſequence of this, to the mind, or to the mind alone, ſo as to be quite independent of aſſociation; and by a moral inſtinct, ſuch a diſpoſition producing in us moral judgments concerning affections and actions; it will be neceſſary, in order to ſupport the opinion of a moral inſtinct, to produce inſtances, where moral judgments ariſe in us independently of prior aſſociations determining thereto.

In like manner, if by founding the morality of actions, and our judgment concerning this morality, on the eternal reaſons and relations of things be meant, that the reaſons drawn from the relations of things, by which the morality or immorality of certain actions is commonly proved, and which, with the relations, are called eternal, from their appearing the ſame, or nearly the ſame, to the mind at all times, would determine the mind to form the correſponding moral judgment independently of prior aſſociations, this ought alſo to be proved by the allegation of proper inſtances. To me it appears, that the inſtances are, as far as we can judge of them, of an oppoſite nature, and favour the deduction of all our moral judgments, approbations, and diſapprobations, from aſſociation alone. However, ſome aſſociations are formed ſo early, repeated ſo often,

often, riveted ſo ſtrong, and have ſo cloſe a connection with the common nature of man, and the events of life which happen to all, as in a popular way of ſpeaking, to claim the appellation of original and natural diſpoſitions; and to appear like inſtincts, when compared with diſpoſitions evidently factitious; alſo like axioms, and intuitive propoſitions, eternally true according to the uſual phraſe, when compared with moral reaſonings of a compound kind. But I have endeavoured to ſhew in theſe papers, that all reaſoning, as well as affection, is the mere reſult of aſſociation.

CONCLUSION;

CONTAINING SOME REMARKS ON THE

MECHANISM OF THE HUMAN MIND.

Besides the conſequences flowing from the doctrine of aſſociation, which are delivered in the Corollaries to the fourteenth Propoſition, there is another, which is thought by many to have a pernicious tendency in reſpect of morality and religion; and which therefore it will be proper that I ſhould conſider particularly.

The conſequence I mean is that of the mechaniſm or neceſſity of human actions, in oppoſition to what is generally termed free-will. Here then I will,

Firſt, State my notion of the mechaniſm or neceſſity of human actions.

Secondly, Give ſuch reaſons as induce me to embrace the opinion of the mechaniſm of human actions.

Thirdly, Conſider the objections and difficulties attending this opinion.

And, laſtly, Allege ſome preſumptions in favour of it from its conſequences.

By the mechaniſm of human actions I mean, that each action reſults from the previous circumſtances of body and mind, in the ſame manner, and with the ſame certainty, as other effects do from their mechanical cauſes; ſo that a perſon cannot do indifferently either of the actions *A*, and its contrary *a*, while the previous circumſtances are the ſame; but is under an abſolute neceſſity of doing one of them, and that only. Agreeably to this I ſuppoſe, that by free-will is meant a power of doing either the action, *A*, or its contrary *a*; while the previous circumſtances remain the ſame.

If by free-will be meant a power of beginning motion, this will come to the ſame thing; ſince, according to the opinion of mechaniſm, as here explained, man has no ſuch power; but every action, or bodily motion, ariſes from previous circumſtances, or bodily motions, already exiſting in the brain, *i. e.* from vibrations, which are either the immediate effect of impreſſions then made, or the remote compound effect of former impreſſions, or both.

But if by free-will be meant any thing different from theſe two definitions of it, it may not perhaps be inconſiſtent with the mechaniſm of the mind here laid down. Thus, if free-will be defined the power of doing what a perſon deſires or wills to do, of deliberating, ſuſpending, chooſing, &c. or of reſiſting the motives of ſenſuality, ambition, reſentment, &c. Free-will, under certain limitations, is not only conſiſtent with the doctrine

doctrine of mechaniſm, but even flows from it; ſince it appears from the foregoing theory, that voluntary and ſemivoluntary powers of calling up ideas, of exciting and reſtraining affections, and of performing and ſuſpending actions, ariſe from the mechaniſm of our natures. This may be called free-will in the popular and practical ſenſe, in contradiſtinction to that, which is oppoſed to mechaniſm, and which may be called free-will in the philoſophical ſenſe.

I proceed now to the arguments which favour the opinion of mechaniſm.

Firſt, then, It is evident to, and allowed by all, that the actions of mankind proceed, in many caſes, from motives, *i. e.* from the influence which the pleaſures and pains of ſenſation, imagination, ambition, ſelf-intereſt, ſympathy, theopathy, and the moral ſenſe, have over them. And theſe motives ſeem to act like all other cauſes. When the motive is ſtrong, the action is performed with vigour; when weak, feebly. When a contrary motive intervenes, it checks or over-rules, in proportion to its relative ſtrength, as far as one can judge. So that where the motives are the ſame, the actions cannot be different; where the motives are different, the actions cannot be the ſame. And it is matter of common obſervation, that this is the caſe in fact, in the principal actions of life, and ſuch where the motives are of a magnitude ſufficient to be evident. It is reaſonable therefore to interpret the obſcure caſes by the evident ones; and to infer, that there are in all inſtances motives of a proper kind and degree, which generate each action; though they are ſometimes not ſeen through their minuteneſs, or through the inattention or ignorance of the obſerver. Agreeably to which thoſe perſons, who ſtudy the cauſes and motives of human actions, may decypher them much more completely, both in themſeves, and thoſe with whom they converſe, than others can.

Suppoſe now a perſon able to decypher all his own actions in this way, ſo as to ſhew that they correſponded in kind and degree to the motives ariſing from the ſeven claſſes of pleaſures and pains conſidered in this theory; alſo able to decypher the principal actions of others in the ſame way: this would be as good evidence, that motives were the mechanical cauſes of actions, as natural phænomena are for the mechanical operation of heat, diet, or medicines. Or if he could not proceed ſo far, but was able only to decypher moſt of his own actions, and many of the principal ones of others, ſtill the evidence would ſcarce be diminiſhed thereby, if the deficiency was no more than is reaſonably to be expected from our ignorance and inattention, in reſpect of ourſelves and others. Let the reader make the trial, eſpecially upon himſelf, ſince ſuch a ſelf-examination cannot but be profitable, and may perhaps be pleaſant; and that either according to the ſeven claſſes of pleaſures and pains here laid down, or any other diviſion, and judge as he thinks fit upon mature deliberation.

It may be of uſe in ſuch an inquiry into a man's ſelf, as I here propoſe, for him to conſider in a ſhort time after any material action is paſt, whether, if he was once more put into the ſame rigidly exact circumſtances, he could poſſibly do otherwiſe than as he did. Here the power of imagination will intervene, and be apt to deceive the inquirer,

inquirer, unleſs he be cautious. For in this review other motives, beſides thoſe which did actually influence him, will ſtart up; and that eſpecially if the action be ſuch as he wiſhes to have been performed with more vigour or leſs, or not to have been performed at all. But when theſe foreign motives are ſet aſide, and the imagination confined to thoſe which did in fact take place, it will appear impoſſible, as it ſeems to me, that the perſon ſhould have done otherwiſe than the very thing which he did.

Secondly, According to the theory here laid down, all human actions proceed from vibrations in the nerves of the muſcles, and theſe from others, which are either evidently of a mechanical nature, as in the automatic motions; or elſe have been ſhewn to be ſo in the account given of the voluntary motions.

And if the doctrine of vibrations be rejected, and ſenſation and muſcular motion be ſuppoſed to be performed by ſome other kind of motion in the nervous parts, ſtill it ſeems probable, that the ſame method of reaſoning might be applied to this other kind of motion.

Laſtly, To ſuppoſe, that the action *A*, or its contrary *a*, can equally follow previous circumſtances, that are exactly the ſame, appears to me the ſame thing, as affirming that one or both of them might ſtart up into being without any cauſe; which, if admitted, appears to me to deſtroy the foundation of all general abſtract reaſoning; and particularly of that whereby the exiſtence of the firſt cauſe is proved.

One of the principal objections to the opinion of mechaniſm is that deduced from the exiſtence of the moral ſenſe, whoſe hiſtory I have juſt given. But it appears from that hiſtory, that God has ſo formed the world, and perhaps (with reverence be it ſpoken) was obliged by his moral perfections ſo to form it, as that virtue muſt have amiable and pleaſing ideas affixed to it; vice, odious ones. The moral ſenſe is therefore generated neceſſarily and mechanically. And it remains to be inquired, whether the amiable and odious ideas above ſhewed to be neceſſarily affixed to virtue and vice reſpectively, though differently according to the different events, of each perſon's life, do not anſwer all the purpoſes of making us ultimately happy in the love of God, and of our neighbour; and whether they are not, *cæteris paribus*, the ſame entirely, or at leaſt in all material reſpects, in thoſe who believe mechaniſm, who believe free-will, and who have not entered into the diſcuſſion of the queſtion at all; or if there be a difference, whether the aſſociations ariſing from the opinion of neceſſity, do not tend more to accelerate us in our progreſs to the love of God, our only true happineſs. It appears to me, that the difference is in general very ſmall; alſo that this difference, whatever it be, is of ſuch a nature as to be a preſumption, in favour of the doctrine of neceſſity, all things being duly conſidered.

When a perſon firſt changes his opinion from free-will to mechaniſm, or more properly firſt ſees part of the mechaniſm of the mind, and believes the reſt from analogy, he is juſt as much affected by his wonted pleaſures and pains, hopes and fears, as before, by the moral and religious ones, as by others. And the being perſuaded, that certain things

things have a neceſſary influence to change his mind for the better or the worſe, *i. e.* ſo as to receive more ſenſible, ſympathetic, religious pleaſures, or otherwiſe, will force him ſtill more ſtrongly upon the right method, *i. e.* put him upon inquiring after and purſuing this method.

If it be objected, That the moral ſenſe ſuppoſes, that we refer actions to ourſelves and others, whereas the opinion of mechaniſm annihilates all thoſe aſſociations, by which we refer actions to ourſelves or others; I anſwer, that it does this juſt as the belief of the reality and infinite value of the things of another world annihilates all the regards to this world. Both have a tendency to theſe reſpective ends, which are indeed one and the ſame at the bottom; but both require time, in order to produce their full effects. When religion has made any one indifferent to this world, its pleaſures and pains, then the kingdom of God, or pure unmixed happineſs, comes in reſpect of him; ſo that he may then well refer all to God. However, a man may be thoroughly ſatisfied in a cool deliberate way, that honours, riches, &c. can afford no ſolid happineſs; and yet deſire them at certain times, eagerly, perhaps, from former aſſociations. But ſuch a thorough general conviction, applied previouſly to the particular inſtances, is a great help in time of temptation, and will gradually deſtroy the wrong aſſociations. In like manner, the opinion that God is the one only cauſe of all things, has a tendency to beget the moſt abſolute reſignation, and muſt be a great ſupport in grievous trials and ſufferings.

We may ſhew by a like method of reaſoning, that the affections of gratitude and reſentment, which are intimately connected with the moral ſenſe, remain notwithſtanding the doctrine of mechaniſm. For it appears from the account of reſentment above delivered, that this, and by conſequence gratitude, in their naſcent ſtate, are equally exerted towards all things, animate and inanimate, that are equally connected with pleaſure and pain. By degrees all ſucceeding circumſtances are left out, and our love and hatred confined to preceding ones, which we conſider as the only cauſes. We then leave out inanimate objects entirely, brutes and children in moſt circumſtances, and adults in ſome. All which is chiefly done, becauſe acknowledgments, rewards, threatenings, and puniſhments, with the other aſſociated circumſtances of gratitude and reſentment, can have no uſe but with reſpect to living intelligent beings. By farther degrees we learn ſuch a uſe of the words, cauſe, and effect, as to call nothing a cauſe, whoſe cauſe, or preceding circumſtance, we can ſee, denominating all ſuch things mere effects, all other cauſes. And thus, becauſe the ſecret ſprings of action in men are frequently concealed, both from the by-ſtander, and even from the agent himſelf, or not attended to, we conſider men in certain circumſtances as real cauſes; and intelligent beings, as the only ones that can be real cauſes; and thus confine our gratitude and reſentment to them: whence it ſeems to follow, that as ſoon as we diſcover created intelligent beings not to be real cauſes, we ſhould ceaſe to make them the objects either of gratitude or reſentment. But this is in great meaſure, ſpeculation; for it will

will appear to every attentive perſon, that benevolence, compaſſion, &c. are amiable, and the objects of gratitude, envy and malice the contrary, from whatever cauſes they proceed, *i. e.* he will find his mind ſo formed already by aſſociation, that he cannot withhold his gratitude or reſentment: and it has been my buſineſs in the foregoing analyſis of the affections, to point out the ſeveral methods by which this and ſuch like things are brought about. And, for the ſame reaſons, a perſon muſt aſcribe merit and demerit, which are alſo intimately connected with the moral ſenſe, to created intelligent beings, though he may have a full perſuaſion, that they are not real cauſes.

It does indeed appear, that this is owing to our preſent imperfect ſtate, in which we begin with the idolatry of the creature, with the worſhip of every aſſociated circumſtance; and that as we advance in perfection, the aſſociations relating to the one only, ultimate, infinite cauſe, muſt at laſt overpower all the reſt; that we ſhall pay no regards but to God alone; and that all reſentment, demerit, ſin, and miſery, will be utterly annihilated and abſorbed by his infinite happineſs and perfections. For our aſſociations being in this, as in many other caſes, inconſiſtent with each other, our firſt groſs and tranſitory ones muſt yield to thoſe which ſucceed and remain.

While any degree of reſentment, or unpleaſing affection, is left, it may be ſhewn, that the ſame aſſociations which keep it up, will turn it upon the creatures, and particularly upon ourſelves. And, on the other hand, when the conſideration of the ultimate cauſe ſeems ready to turn it from ourſelves, it will alſo ſhew that it ought to be annihilated.

Theſe may be conſidered as general remarks, tending to remove the difficulties ariſing from the conſideration of the moral ſenſe. I will now ſtate the principal objections to the opinion of mechaniſm, in a direct, but ſhort way, adding ſuch hints as appear to me to afford a ſolution of them.

Firſt, then, It may be ſaid, that a man may prove his own free-will by internal feeling. This is true, if by free-will be meant the power of doing what a man wills or deſires; or of reſiſting the motives of ſenſuality, ambition, &c. *i. e.* free-will in the popular and practical ſenſe. Every perſon may eaſily recollect inſtances, where he has done theſe ſeveral things. But then theſe are entirely foreign to the preſent queſtion. To prove that a man has free-will in the ſenſe oppoſite to mechaniſm, he ought to feel, that he can do different things, while the motives remain preciſely the ſame: and here I apprehend the internal feelings are entirely againſt free-will, where the motives are of a ſufficient magnitude to be evident; where they are not, nothing can be proved.

Secondly, It may be ſaid, that unleſs a man have free-will, he is not an agent. I anſwer, that this is true, if agency be ſo defined as to include free-will. But if agency have its ſenſe determined, like other words, from the aſſociated appearances, the objection falls at once. A man may ſpeak, handle, love, fear, &c. entirely by mechaniſm.

Thirdly,

Thirdly, It may be ſaid, that the denial of free-will in man is the denial of it in God alſo. But to this it may be anſwered, that one does not know how to put the queſtion in reſpect of God, ſuppoſing free-will to mean the power of doing different things, the previous circumſtances remaining the ſame, without groſs anthropomorphitiſm. It does not at all follow, however, becauſe man is ſubject to a neceſſity ordained by God, that God is ſubject to a prior neceſſity. On the contrary, according to the doctrine of mechaniſm, God is the cauſe of cauſes, the one only ſource of all power.

Fourthly, It may be ſaid, that men are perpetually impoſed upon, unleſs they have free-will, ſince they think they have. But here again free-will is put for the power of doing what a man wills or deſires, &c. for, in the ſenſe oppoſite to mechaniſm, few perſons have ever entered into the diſcuſſion of the point at all; and thoſe who do with ſufficient attention, cannot but determine againſt free-will, as it ſeems to me.

Fifthly, It may be ſaid, that the doctrine of mechaniſm deſtroys the notion of a particular providence altering the courſe of nature ſo as to ſuit it to the actions of men. I anſwer, that laying down philoſophical free-will, ſuch an alteration in the courſe of nature may perhaps be neceſſary. But if man's actions, and the courſe of nature, be both fixed, they may be ſuited to each other in the beſt poſſible manner; which is all that can be required, in order to vindicate God's attributes, as well as all that man can deſire.

Sixthly, It may be ſaid, that all motives to good actions, and particularly to prayer, are taken away by denying free-will. I anſwer, that according to the mechanical ſyſtem, prayer and good actions are the means for obtaining happineſs; and that the belief of this is the ſtrongeſt of motives to impel men to prayer and good works.

Seventhly, It may be ſaid, that the denial of free-will deſtroys the diſtinction between virtue and vice. I anſwer, that this is according as theſe words are defined. If free-will be included in the definition of virtue, then there can be no virtue without free-will. But if virtue be defined obedience to the will of God, a courſe of action proceeding from the love of God, or from benevolence, &c. free-will is not at all neceſſary; ſince theſe affections and actions may be brought about mechanically.

A ſolution analogous to this may be given to the objection taken from the notions of merit and demerit. Let the words be defined, and they will either include free-will, or, not including it, will not require it; ſo that the propoſition, *merit implies free-will*, will either be identical, or falſe.

Eighthly, It may be ſaid, that the doctrine of mechaniſm makes God the author of ſin. I anſwer, that till we arrive at ſelf-annihilation, ſin always will, and ought to appear to ariſe from ourſelves; and that, when we are arrived thither, ſin and evil of every kind vaniſh. I anſwer alſo, that the doctrine of philoſophical free-will does not remove our difficulties and perplexities, in reſpect of the moral attributes of God, unleſs by transferring them upon the natural ones, *i. e.* by our ſuppoſing that ſome prior

neceſſity compelled God to beſtow free-will on his creatures. It ſeems equally difficult, in every way, to account for the origin of evil, natural or moral, conſiſtently with the infinity of the power, knowledge, and goodneſs of God. If we ſuppoſe, that all tends to happineſs ultimately, this removes the difficulty ſo far as to produce acquieſcence in the will of God, and thankfulneſs to him; and that juſt as much upon the ſyſtem of mechaniſm as that of free-will. Moral evil has no difficulty in it, beſides what ariſes from the natural evil attending it.

Ninthly, It may be ſaid, that the exhortations of the ſcriptures preſuppoſe free-will. I anſwer, That they are to be conſidered as motives impelling the will, and contributing, as far as they are attended to, to rectify it. A parent who believes the doctrine of mechaniſm may, conſiſtently with it, or rather muſt neceſſarily, in conſequence of this belief, exhort his child. Therefore God, who is pleaſed to call himſelf our heavenly Father, may do the ſame. And if we embrace the opinion of univerſal reſtoration, then all the exhortations contained both in the word and works of God, will produce their genuine effect, and concur to work in us diſpoſitions fit to receive happineſs ultimately.

I come now to hint ſome conſequences of the doctrine of mechaniſm, which ſeem to me to be ſtrong preſumptions in its favour.

Firſt, then, It entirely removes the great difficulty of reconciling the preſcience of God with the free-will of man. For it takes away philoſophical free-will, and the practical is conſiſtent with God's preſcience.

Secondly, It has a tendency to beget the moſt profound humility and ſelf-annihilation; ſince, according to this, we are entirely deſtitute of all power and perfection in ourſelves, and are what we are entirely by the grace and goodneſs of God.

Thirdly, It has a tendency to abate all reſentment againſt men. Since all that they do againſt us is by the appointment of God, it is rebellion againſt him to be offended with them.

Fourthly, It greatly favours the doctrine of univerſal reſtoration. Since all that is done is by the appointment of God, it cannot but end well at laſt.

Fifthly, It has a tendency to make us labour more earneſtly with ourſelves and others, particularly children, from the greater certainty attending all endeavours that operate in a mechanical way.

Laſtly, There are many well-known paſſages of ſcripture, which cannot be reconciled to the doctrine of philoſophical free-will, without the greateſt harſhneſs of interpretation.

It may alſo be objected to the whole foregoing theory, as well as to the doctrine of vibrations in particular, that it is unfavourable to the immateriality of the ſoul; and, by conſequence, to its immortality. But to this I anſwer, that I am reduced to the neceſſity of making a *poſtulatum* at the entrance of my inquiries; which precludes all poſſibility of proving the materiality of the ſoul from this theory afterwards. Thus I ſuppoſe,

* Lev. 17. Chap. Israel Vers. 7
Upon the eight and creatin dwarfs:
Trade Jesus and create Evil. The Lord
do all these Things

ſuppoſe, or poſtulate, in my firſt propoſition, that ſenſations ariſe in the ſoul from motions excited in the medullary ſubſtance of the brain. I do indeed bring ſome arguments from phyſiology and pathology, to ſhew this to be a reaſonable *poſtulatum*, when underſtood in a general ſenſe; for it is all one to the purpoſe of the foregoing theory, whether the motions in the medullary ſubſtance be the phyſical cauſe of the ſenſations, according to the ſyſtem of the ſchools; or the occaſional cauſe, according to *Malbranche*; or only an adjunct, according to *Leibnitz*. However, this is not ſuppoſing matter to be endued with ſenſation, or any way explaining what the ſoul is; but only taking its exiſtence, and connection with the bodily organs in the moſt ſimple caſe, for granted, in order to make farther inquiries. Agreeably to which I immediately proceed to determine the ſpecies of the motion, and by determining it, to caſt light on ſome important and obſcure points relating to the connection between the body and the ſoul in complex caſes.

It does indeed follow from this theory, that matter, if it could be endued with the moſt ſimple kinds of ſenſation, might alſo arrive at all that intelligence of which the human mind is poſſeſſed: whence this theory muſt be allowed to overturn all the arguments which are uſually brought for the immateriality of the ſoul from the ſubtlety of the internal ſenſes, and of the rational faculty. But I no ways preſume to determine whether matter can be endued with ſenſation or no. This is a point foreign to the purpoſe of my inquiries. It is ſufficient for me, that there is a certain connection, of one kind or other, between the ſenſations of the ſoul, and the motions excited in the medullary ſubſtance of the brain; which is what all phyſicians and philoſophers allow.

I would not therefore be any way interpreted ſo as to oppoſe the immateriality of the ſoul. On the contrary, I ſee clearly, and acknowledge readily, that matter and motion, however ſubtly divided, or reaſoned upon, yield nothing more than matter and motion ſtill. But then neither would I affirm, that this conſideration affords a proof of the ſoul's immateriality. In like manner the unity of conſciouſneſs ſeems to me an inconcluſive argument. For conſciouſneſs is a mental perception; and if perception be a monad, then every inſeparable adjunct of it muſt be ſo too, *i. e.* vibrations, according to this theory, which is evidently falſe. Not to mention, that it is difficult to know what is meant by the unity of conſciouſneſs.

But it is moſt worthy of notice, that the immateriality of the ſoul has little or no connection with its immortality; and that we ought to depend upon him who firſt breathed into man the breath of the preſent life, for our reſurrection to a better. *All live unto him.* And if we depend upon any thing elſe beſides him, for any bleſſing, we may be ſaid ſo far to renounce our allegiance to him, and to idolize that upon which we depend.

END OF THE FIRST PART.

OBSERVATIONS

ON

MAN, &c.

IN TWO PARTS.

PART II.

OBSERVATIONS

ON

MAN, &c.

IN TWO PARTS.

PART II.

Containing OBSERVATIONS *on the* DUTY *and* EXPECTATIONS *of* MANKIND.

INTRODUCTION.

WHATEVER be our doubts, fears, or anxieties, whether ſelfiſh or ſocial, whether for time or eternity, our only hope and refuge muſt be in the infinite power, knowledge, and goodneſs of God. And if theſe be really our hope and refuge, if we have a true practical ſenſe and conviction of God's infinite ability and readineſs to protect and bleſs us, an entire, peaceful, happy reſignation will be the reſult, notwithſtanding the clouds and perplexities wherewith we may ſometimes be encompaſſed. He who has brought us into this ſtate, will conduct us through it: he knows all our wants and diſtreſſes: his infinite nature will bear down all oppoſition from our impotence, ignorance, vice, or miſery: he is our creator, judge, and king, our friend, and father, and God.

And though the tranſcendent greatneſs and glorioufneſs of this proſpect may, at firſt view, make our faith ſtagger, and incline us to diſbelieve through joy; yet, upon farther conſideration, it ſeems rather to confirm and eſtabliſh itſelf on that account; for the more it exceeds our gratitude and comprehenſion, the more does it coincide with the idea of that abſolutely perfect being, whom the ſeveral orders of imperfect beings

perpetually

perpetually ſuggeſt to us, as our only reſting place, the cauſe of cauſes, and the ſupreme reality.

However, on the other hand, it muſt be acknowledged, that the evils which we ſee and feel are ſtrong arguments of the poſſibility of ſtill greater evils, of any finite evils whatever, and of their conſiſtency with the divine attributes. All finites are equally nothing in reſpect of infinite; and if the infinite power, knowledge, and goodneſs of God can permit the leaſt evil, they may permit any finite degree of it, how great ſoever, for any thing that we know to the contrary. And this moſt alarming conſideration cannot but compel every thinking perſon to uſe his utmoſt endeavours, firſt for his own preſervation and deliverance; and then, in proportion to his benevolence, for the preſervation and deliverance of others.

Nor can ſuch a perſon long heſitate what method to take in the general. The duties of piety, benevolence, and ſelf-government, conſidered in the general, have had ſuch a ſtamp ſet upon them by all ages and nations, by all orders and conditions of men, approve themſelves ſo much to our frame and conſtitution, and are ſo evidently conducive to both public and private happineſs here, that one cannot doubt of their procuring for us not only ſecurity, but our *ſummum bonum*, our greateſt poſſible happineſs, during the whole courſe of our exiſtence, whatever that be.

Theſe are the genuine dictates of what is called natural religion. But we, who live in chriſtian countries, may have recourſe to far clearer light, and to a more definite rule: the chriſtian revelation is atteſted by ſuch evidences hiſtorical, prophetical, and moral, as will give abundant comfort and ſatisfaction to all who ſeek them earneſtly. A future life, with indefinite, or even infinite, rewards and puniſhments, is ſet before us in expreſs terms, the conditions declared, examples related both to encourage our hopes, and alarm our fears, and aſſurances of aſſiſtance and mercy delivered in the ſtrongeſt and moſt pathetic terms.

Yet ſtill there are difficulties both in the word of God, and in his works; and theſe difficulties are ſometimes ſo magnified, as to lead to ſcepticiſm, infidelity, or atheiſm. Now, the contemplation of our own frame and conſtitution appears to me to have a peculiar tendency to leſſen theſe difficulties attending natural and revealed religion, and to improve their evidences, as well as to concur with them in their determination of man's duty and expectations. With this view, I drew up the foregoing obſervations on the frame and connection of the body and mind; and, in proſecution of the ſame deſign, I now propoſe,

Firſt, To proceed upon this foundation, and upon the other phænomena of nature to deduce the evidences for the being and attributes of God, and the general truths of natural religion.

Secondly, Laying down all theſe as a new foundation, to deduce the evidences for revealed religion.

Thirdly,

Thirdly, To inquire into the rule of life, and the particular applications of it, which reſult from the frame of our natures, the dictates of natural religion, and the precepts of the ſcriptures taken together, compared with, and caſting light upon each other. And,

Fourthly, To inquire into the genuine doctrines of natural and revealed religion thus illuſtrated, concerning the expectations of mankind, here and hereafter, in conſequence of their obſervance or violation of the rule of life.

I do not preſume to give a complete treatiſe on any of theſe ſubjects; but only to borrow from the many excellent writings, which have been offered to the world on them, ſome of the principal evidences and deductions, and to accommodate them to the foregoing theory of the mind; whereby it may appear, that though the doctrines of aſſociation and mechaniſm do make ſome alterations in the method of reaſoning on religion, yet they are far from leſſening either the evidences for it, the comfort and joy of religious perſons, or the fears of irreligious ones.

OBSERVATIONS ON MAN,

HIS FRAME, HIS DUTY, AND HIS EXPECTATIONS.

CHAP. I.

Of the BEING *and* ATTRIBUTES *of* GOD, *and of* NATURAL RELIGION.

PROP. C.

Something muſt have exiſted from all Eternity; or, there never was a Time when Nothing exiſted.

FOR, when we place ourſelves in ſuch an imaginary point of time, and then try to conceive how a world, finite or infinite, ſhould begin to exiſt, abſolutely without cauſe, we find an inſtantaneous and irreſiſtible check put to the conception, and we are compelled at once to reject the ſuppoſition: ſo that the manner in which we reject it, is a proper authority for doing ſo. It is ſuperfluous, in this caſe, to inquire into the nature of this check and rejection, and diſſent grounded thereon; ſince, after all our inquiries, we muſt ſtill find an inſuperable reluctance to aſſent. The ſuppoſition will not remain in the mind, but is thrown out immediately; and I do not ſpeak of this, as what ought to follow from a proper theory of evidence and aſſent, but as a fact, which every man feels, whatever his notions of logic be, or whether he has any or no; and I appeal to every man for the truth of this fact. Now, no truth can have a greater reality to us, nor any falſehood a greater evidence againſt it, than this inſtantaneous, neceſſary aſſent or diſſent. I conclude, therefore, that there never was a time when nothing exiſted; or, in other words, that ſomething muſt have exiſted from all eternity.

PROP. CI.

There cannot have been a mere Succeſſion of finite dependent Beings from all Eternity; but there muſt exiſt, at leaſt, one infinite and independent Being.

IF an infinite ſucceſſion of finite dependent beings be poſſible, let *M*, *N*, *O*, &c. repreſent the ſeveral links of this chain or ſeries; *N* is therefore the mere effect of *M*,

O of *N*, &c. as we deſcend; and as we aſcend, *M* is the effect of *L*, *L* of *K*, &c. Each particular being, therefore, is a mere effect; and therefore the ſuppoſition of ſuch a ſucceſſion finite *à parte ante*, would be rejected immediately according to the laſt propoſition, ſince *A*, the firſt term, would be an effect abſolutely without a cauſe. And the ſame thing holds, whatever number of terms be added *à parte ante*. If, therefore, an infinite number be added (which I here ſuppoſe poſſible for argument's ſake), ſo that the ſeries may become infinite *à parte ante*, the ſame concluſion muſt be valid according to the analogy of all mathematical reaſonings concerning infinites: ſince we do not approach to the poſſibility of this ſeries in any ſtep of our progreſs, but always remain in the ſame ſtate of utter inability to admit it, we can never arrive thither ultimately. Wherever the ultimate ratio of quantities, ſuppoſed then to be infinitely great or ſmall, is different from that of the ſame quantities ſuppoſed to be finite, there is a perpetual tendency to this ultimate ratio in every increaſe or diminution of the quantities: it follows, therefore, that an infinite ſucceſſion of mere finite dependent beings is impoſſible to us; which relative impoſſibility, as I obſerved before, is our *ne plus ultra*. Though we ſhould fancy relative impoſſibles to be poſſible *in themſelves*, as it is ſometimes phraſed, the utter rejection, which forces itſelf again and again upon the mind, when we endeavour to conceive them ſo, ſuppreſſes all naſcent tendencies to aſſent.

The ſame thing may be conſidered thus: if there be nothing more in the univerſe than a mere ſucceſſion of finite dependent beings, then there is ſome degree of finiteneſs ſuperior to all the reſt; but this is impoſſible, ſince no cauſe can be aſſigned for this degree rather than any other: beſides, this ſupreme finite being will want a cauſe of its exiſtence, ſince it is finite; which yet it cannot have, ſince all the reſt are inferior to it.

Or thus: if an infinite ſucceſſion of finite beings be poſſible, let us ſuppoſe it in men: it will be neceſſary, however, to ſuppoſe one or more beings ſuperior to man, on account of the exquiſiteneſs of his frame of body and mind, which is far above his own power to execute, and capacity to comprehend: and if this being or beings be not infinite, we muſt have recourſe to a ſecond infinite ſucceſſion of finite beings. But then it will be natural to ſuppoſe, that theſe beings, though able to comprehend man through their ſuperior faculties, cannot comprehend themſelves, and ſo on till we come to an infinite being, who alone can comprehend himſelf.

There are many other arguments and methods of reaſoning, of the ſame kind with thoſe here delivered, which lead to the ſame concluſion; and they all ſeem to turn upon this, that as all finite beings require a ſuperior cauſe for their exiſtence and faculties, ſo they point to an infinite one, as the only real cauſe, himſelf being uncauſed. He is, therefore, properly denominated independent, ſelf-exiſtent, and neceſſarily exiſtent; terms which import nothing more, when applied to the Deity, than the denial of a foreign cauſe of his exiſtence and attributes; notwithſtanding that theſe words, on account of their different derivations, and relations to other words, may ſeem to have a different import, when applied to the Deity.

If

If it be objected, that a cauſe is required for an infinite being, as well as for a finite one; I anſwer, that though the want of a cauſe for finite beings, with other arguments to the ſame purpoſe, leads us neceſſarily to the conſideration and admiſſion of an infinite one; yet, when we are arrived there, we are utterly unable to think or ſpeak properly of him: however, one would rather judge, that, for the ſame reaſon that all finiteneſs requires a cauſe, infinity is incompatible with it.

If it be ſuppoſed poſſible for a man, through logical and metaphyſical perplexities, or an unhappy turn of mind, not to ſee the force of theſe and ſuch like reaſonings, he muſt, however, be at leaſt *in æquilibrio* between the two oppoſite ſuppoſitions of the propoſition, viz. that of an infinite ſucceſſion of finite dependent beings, and that of an infinite independent being. In this caſe, the teſtimony of all ages and nations, from whatever cauſe it ariſes, and of the ſcriptures, in favour of the laſt ſuppoſition, ought to have ſome weight, ſince ſome credibility muſt be due to theſe, in whatever light they be conſidered. If, therefore, they have no weight, this may ſerve to ſhew a man, that he is not ſo perfectly *in æquilibrio*, as he may fancy.

This propoſition will alſo be confirmed by the following. My chief deſign under it has been to produce the abſtract metaphyſical arguments for the exiſtence of an infinite independent being. Some of theſe are more ſatisfactory to one perſon, ſome to another; but in all there is ſomething of perplexity and doubt concerning the exact propriety of expreſſions, and method of reaſoning, and perhaps ever will be; ſince the ſubject is infinite, and we finite. I have given what appears moſt ſatisfactory to myſelf; but without the leaſt intention to cenſure the labours of others upon this important ſubject. If we underſtood one another perfectly, not only our concluſions, but our methods of arriving at them, would probably appear to coincide. In the mean time, mutual candour will be of great uſe for the preventing the ill effects of this branch of the confuſion of tongues.

PROP. CII.

The infinite independent Being is endued with infinite Power and Knowledge.

This Propoſition follows from the foregoing; it being evident, that moſt or all the ways there delivered, or referred to, for proving an infinite being, do, at the ſame time, prove the infinity of his power and knowledge. To ſuppoſe a being without any power, or any knowledge, is, in effect, to take away his exiſtence, after it has been allowed. And to ſuppoſe an infinite being with only finite power, or finite knowledge, is ſo diſſonant to the analogy of language, and of the received method of reaſoning, that it muſt be rejected by the mind.

But the infinity of the divine power and knowledge may alſo be proved in many independent ways, and theſe proofs may be extended, in a contrary order, to infer the foregoing propoſition.

Thus,

Thus, Firſt; When a man conſiders the ſeveral orders of ſentient and intelligent beings below him, even in the moſt tranſient way, and aſks himſelf whether or no mankind be the higheſt order which exiſts within the whole *compaſs of nature*, as we term it, he cannot but reſolve this queſtion in the negative; he cannot but be perſuaded, that there are beings of a power and knowledge ſuperior to his own, as well as inferior. The idea, the internal feeling, of the actual exiſtence of ſuch beings forces itſelf upon the mind, adheres inſeparably to, and coaleſces with, the reflection upon the inferior orders of beings, which he ſees. Farther, as we can perceive no limits ſet to the deſcending ſcale, ſo it is natural, even at firſt view, to imagine, that neither has the aſcending ſcale any limits; or, in other words, that there actually exiſts one, or more beings, endued with infinite power and knowledge.

Secondly, When we contemplate the innumerable inſtances and evidences of boundleſs power, and exquiſite ſkill, which appear every where in the organs and faculties of animals, in the make and properties of the vegetable and mineral kingdoms, in the earth, water, and air of this globe, in the heavenly bodies, in light, gravity, electricity, magnetiſm, the attraction of coheſion, &c. &c. with the manifeſt adaptations and ſubſerviencies of all theſe things to each other, in ſuch manner as to ſhew both the moſt perfect knowledge of them, and of all their properties, and the moſt abſolute command over them; when we conſider alſo that vaſt extent of theſe effects of power and knowledge, which teleſcopes, microſcopes, and the daily obſervations and experiments of mankind, open to our view; the real exiſtence, firſt, of power and knowledge far beyond human conception, and then, of thoſe that are actually infinite, forces itſelf upon the mind, by the cloſe connection and indiſſoluble union between the ſeveral ideas here mentioned.

For, Thirdly, Though no finite being can comprehend more than the finite effects of power and knowledge; nay, though to ſuppoſe infinite effects, *i. e.* an infinite univerſe, is thought by ſome to involve a contradiction, to be the ſame thing as ſuppoſing an actually infinite number; yet it appears to me, that the other branch of the dilemma repels us with the greateſt force. To ſuppoſe a finite univerſe, is to ſuppoſe a ſtop where the mind cannot reſt; we ſhall always aſk for a cauſe of this finiteneſs, and, not finding any, reject the ſuppoſition. Now, if the univerſe be ſuppoſed infinite, this proves at once the abſolute infinity of the divine power and knowledge, provided we allow them to follow in a finite degree, from the finite evidences of power and knowledge, in that part of the univerſe which is preſented to our view.

As to the foregoing objection to the infinity of the univerſe, we may obſerve, that it ariſes merely from the finiteneſs of our comprehenſions. We can have no conception of any thing infinite, nor of the poſſibility that any other being, conceived by us, can conceive this, &c. &c. But all this vaniſhes, when we come to conſider, that there actually is, that there neceſſarily muſt be, an infinite being. This being may conceive his own infinite works, and he alone can do it. His own infinite nature, which we cannot but admit, is as much above conception as the infinity of his works. And all apparent

apparent contradictions, in these things, seem to flow merely from our using the words denoting infinity, of which we can neither have any idea, nor any definition, but by equivalent terms, like those words of which we have ideas or definitions. In the same manner as when the conditions of an algebraic problem are impossible, the unknown quantity comes out indeed by the resolution of the equation under an algebraic form, as in other cases; but then this form, when examined, is found to include an impossibility.

As the infinity of the divine power and knowledge may be deduced from that of the universe, so the last may be deduced from the first, supposed to be proved by other arguments. And it may be observed in general, upon all inquiries into this subject, that the mind cannot bear to suppose either God or his works finite, however unable we may be to think or speak of them properly, when they are supposed to be infinite.

Fourthly, As it appears from the train of reasoning used in this and the foregoing proposition, that an infinite being is absolutely necessary for the existence of the visible world, as its creator; so the consideration of this leads us to the infinity of his power and knowledge. The things created must be merely passive, and subject entirely to the will of him who created them. In like manner, all the powers and properties of created things, with all the results of these, in their mutual applications, through all eternity, must be known to him. And this follows in whatever manner we consider creation, of which we can certainly form no just idea. It is evident, as just now mentioned, that an author of this world is absolutely required; also, that this author must have been from all eternity. It is therefore most natural for us to conclude, that there have been infinite effects of his almighty power from all eternity. But then this does not exclude creations in time, I mean of things made from nothing. For it seems to me, that our narrow faculties cannot afford us the least foundation for supposing the creation of things from nothing impossible to God.

Lastly, there is a great accession of evidence for the infinity of the divine power and knowledge, and for the creation of all things by God, and their entire subjection to him, from the declarations of the scriptures to this purpose. This accession of evidence can scarce be necessary in this age; but, in the infancy of the world, revelation seems to have been the chief or only foundation of faith in any of the divine attributes. And even now, it cannot but be matter of the greatest comfort and satisfaction to all good men, to have an independent evidence for these important truths; and that more especially, if their minds have been at all perplexed with the metaphysical disputes and subtleties, which are often started on these subjects.

PROP. CIII.

God is infinitely benevolent.

As all the natural attributes of God may be comprehended under power and knowledge, ſo benevolence ſeems to comprehend all the moral ones. This propoſition therefore, and the foregoing, contain the fundamentals of all that reaſon can diſcover to us concerning the divine nature and attributes.

Now, in inquiring into the evidences for the divine benevolence, I obſerve, firſt, that as we judge of the divine power and knowledge by their effects in the conſtitution of the viſible world, ſo we muſt judge of the divine benevolence in the ſame way. Our arguments for it muſt be taken from the happineſs, and tendencies thereto, that are obſervable in the ſentient beings, which come under our notice.

Secondly, That the miſery, to which we ſee ſentient beings expoſed, does not deſtroy the evidences for the divine benevolence, taken from happineſs, unleſs we ſuppoſe the miſery equal or ſuperior to the happineſs. A being who receives three degrees of happineſs, and but one of miſery, is indebted for two degrees of happineſs to his Creator. Hence our inquiry into the divine benevolence is reduced to an inquiry into the balance of happineſs, or miſery, conferred, or to be conferred, upon the whole ſyſtem of ſentient beings, and upon each individual of this great ſyſtem. If there be reaſon to believe, that the happineſs which each individual has received, or will receive, be greater than his miſery, God will be benevolent to each being, and infinitely ſo to the whole infinite ſyſtem of ſentient beings; if the balance be infinitely in favour of each individual, God will be infinitely benevolent to each, and infinito-infinitely to the whole ſyſtem.

It is no objection to this reaſoning, that we deſire pure happineſs, and prefer it to an equal balance of happineſs mixed with miſery; or that the conſideration of miſery, amidſt the works of an infinitely benevolent being, gives us perplexity. For this diſappointment of our deſires, and this perplexity, can amount to no more than finite evils, to be deducted from the ſum total of happineſs; and our obligations to the author of our beings muſt always be in proportion to this remaining ſum. We may add, that as this diſappointment and perplexity are ſources of miſery at preſent, they may, in their future conſequences, be much ampler ſources of happineſs; and that this ſeems to be the natural reſult of ſuppoſing, that happineſs prevails over miſery.

Thirdly, Since the qualities of benevolence and malevolence are as oppoſite to one another, as happineſs and miſery, their effects, they cannot coexiſt in the ſame ſimple unchangeable being. If therefore we can prove God to be benevolent, from the balance of happineſs, malevolence muſt be entirely excluded; and we muſt ſuppoſe the evils, which we ſee and feel, to be owing to ſome other cauſe, however unable we may be to aſſign this cauſe, or form any conceptions of it.

Fourthly,

Fourthly, Since God is infinite in power and knowledge, *i. e.* in his natural attributes, he muſt be infinite in the moral one alſo, *i. e.* he muſt be either infinitely benevolent, or infinitely malevolent. All arguments, therefore, which exclude infinite malevolence, prove the infinite benevolence of God.

Laſtly, As there are ſome difficulties and perplexities which attend the proofs of the divine ſelf-exiſtence, power, and knowledge, ſo it is natural to expect, that others equal, greater, or leſs, ſhould attend the conſideration of the divine benevolence. But here again revelation comes in aid of reaſon, and affords inexpreſſible ſatisfaction to all earneſt and well-diſpoſed perſons, even in this age, after natural philoſophy, and the knowledge of natural religion, have been ſo far advanced. In the early ages of the world, divine revelation muſt have been, almoſt the only influencing evidence of the moral attributes of God.

Let us now come to the evidences for the divine benevolence, and its infinity.

Firſt, then, It appears probable, that there is an over-balance of happineſs to the ſentient beings of this viſible world, conſidered both generally and particularly. For though diſorder, pain, and death, do very much abound every where in the world, yet beauty, order, pleaſure, life, and happineſs, ſeem to ſuperabound. This is indeed impoſſible to be aſcertained by an exact computation. However, it is the general opinion of mankind, which is ſome kind of proof of the thing itſelf. For ſince we are inclined to think, that happineſs or miſery prevails, according as we ourſelves are happy or miſerable (which both experience, and the foregoing doctrine of aſſociation, ſhew), the general prevalence of the opinion of happineſs is an argument of the general prevalence of the thing itſelf. Add to this, that the recollection of places, perſons, &c. which we have formerly known, is in general pleaſant to us. Now recollection is only the compound veſtige of all the pleaſures and pains, which have been aſſociated with the object under conſideration. It ſeems therefore, that the balance muſt have been in favour of pleaſure. And yet it may be, that ſmall or moderate actual pains are in recollection turned into pleaſures. But then this will become an argument, in another way, for the prevalence of the pleaſures, and particularly of thoſe of recollection, *i. e.* mental ones. It appears alſo, that the growth and health of the body infer the general prevalence of happineſs, whilſt they continue. Afterwards, the mental happineſs may over-balance the bodily miſery.

Secondly, If we ſhould lay down, that there is juſt as much miſery as happineſs in the world (more can ſcarce be ſuppoſed by any one), it will follow, that if the laws of benevolence were to take place in a greater degree than they do at preſent, miſery would perpetually decreaſe, and happineſs increaſe, till, at laſt, by the unlimited growth of benevolence, the ſtate of mankind, in this world, would approach to a paradiſiacal one. Now, this ſhews that our miſeries are, in a great meaſure, owing to our want of benevolence, *i. e.* to our moral imperfections, and to that which, according to our preſent language, we do and muſt call *ourſelves*. It is probable therefore, that, upon a more

accurate examination and knowledge of this ſubject, we ſhould find, that our miſeries aroſe not only in great meaſure, but entirely, from this ſource, from the imperfection of our benevolence, whilſt all that is good comes immediately from God, who muſt therefore be deemed perfectly benevolent. And ſince the courſe of the world, and the frame of our natures, are ſo ordered, and ſo adapted to each other, as to enforce benevolence upon us, this is a farther argument of the kind intentions of an over-ruling Providence. It follows hence, that malevolence, and conſequently miſery, muſt ever decreaſe.

Thirdly, All the faculties, corporeal and mental, of all animals, are, as far as we can judge, contrived and adapted both to the preſervation and well-being of each individual, and to the propagation of the ſpecies. And there is an infinite coincidence of all the ſeveral ſubordinate ends with each other, ſo that no one is ſacrificed to the reſt, but they are all obtained in the utmoſt perfection by one and the ſame means. This is a ſtrong argument for all the divine perfections, power, knowledge, and goodneſs. And it agrees with it, that final cauſes, *i. e.* natural good, are the beſt clue for guiding the invention in all attempts to explain the œconomy of animals.

Fourthly, As order and happineſs prevail in general more than their contraries, ſo when any diſorder, bodily or mental, does happen, one may obſerve, in general, that it produces ſome conſequences, which in the end rectify the original diſorder; and the inſtances where diſorders propagate and increaſe themſelves without viſible limits, are comparatively rare. Nay, it may be, that all the apparent ones of this kind are really otherwiſe; and that they would appear otherwiſe, were our views ſufficiently extenſive.

Fifthly, The whole analogy of nature leads us from the conſideration of the infinite power and knowledge of God, and of his being the creator of all things, to regard him as our father, protector, governor, and judge. We cannot therefore but immediately hope and expect from him benevolence, juſtice, equity, mercy, bounty, truth, and all poſſible moral perfections. Men of great ſpeculation and refinement may deſire to have this analogical reaſoning ſupported, and ſhewn to be valid; and it is very uſeful to do this as far as we are able. But it carries great influence previouſly to ſuch logical inquiries; and even after them, though they ſhould not prove ſatisfactory, a perſon of a ſober and well-diſpoſed mind, would ſtill find himſelf affected by it in no inconſiderable degree. Such a perſon would be compelled, as it were, to fly to the infinite creator of the world in his diſtreſſes, with earneſtneſs, and with ſome degree of faith, and would conſider him as his father and protector.

Sixthly, Whenever we come to examine any particular law, fact, circumſtance, &c. in the natural or moral world, where we have a competent information and knowledge, we find that every thing which has been, was right in reſpect of the ſum total of happineſs; and that when we ſuppoſe any change to have been made, which

which appears, at firſt ſight, likely to produce more happineſs; yet, after ſome reflection, the conſideration of ſome other things neceſſarily influenced by ſuch a change, convinces us, that the preſent real conſtitution of things is beſt upon the whole. Books of natural hiſtory and natural philoſophy, and indeed daily obſervation, furniſh abundant inſtances of this; ſo as to ſhew, that, other things remaining the ſame, every ſingle thing is the moſt conducive to general happineſs, that it can be according to the beſt of our judgments. And though our judgments are ſo ſhort and imperfect, that this cannot paſs for an abſolutely concluſive evidence, yet it is very remarkable, that theſe imperfect judgments of ours ſhould lie conſtantly on the ſame ſide. We have no reaſon to ſuppoſe, that a better acquaintance with things would give us cauſe to alter it, but far otherwiſe, as appears from the univerſal conſent of all that are inquiſitive and learned in theſe matters. And if there were a few objections in the other ſcale (which I believe philoſophers will ſcarce allow), they can, at the utmoſt, have no more than the ſame imperfect judgment to reſt upon.

Seventhly, Suppoſing that every ſingle thing is, other things remaining the ſame, the moſt conducive to happineſs that it can be, then the real deficiencies that are found in reſpect of happineſs, and which, at firſt ſight, appear to ariſe from a proportional deficiency in the divine benevolence, may be equally aſcribed to a deficiency in the divine power or knowledge. For this wonderful, preciſe, minute adaptation of every thing to each other is ſuch an argument for benevolence in the moſt unbounded ſenſe, that one would rather aſcribe, whatever diſorders there are in the univerſe, to ſome neceſſary imperfection in things themſelves, ſurpaſſing, if poſſible, the divine power or knowledge to rectify; this appearing to be the weaker ſide of the dilemma.

By a ſingle thing, in the two foregoing paragraphs, I mean one that is ſo comparatively; ſo that I call not only a ſingle part of an animal (which yet is a thing decompounded, perhaps without limits), but a whole ſyſtem of animals, when compared with other ſyſtems, a ſingle thing. Now, to aſk whether happineſs could not be promoted, if the whole univerſe was changed, is abſurd; ſince it is probable, from what is already offered, that the happineſs of the univerſe is always infinitely great; the infinity of the divine power and knowledge requiring infinite benevolence, *i. e.* the infinite happineſs of the creation, if benevolence be at all ſuppoſed a divine attribute as has been noted before.

Eighthly, Since the apparent defects that are in happineſs may, according to the laſt paragraph but one, be equally referred to ſome ſuppoſed defect in one of the principal attributes of power, knowledge or goodneſs, it does even from hence appear probable, that theſe defects are not owing to any defect in any of them, *i. e.* that there are no ſuch defects in reality, but that all our difficulties and perplexities in theſe matters ariſe from ſome miſapprehenſion of our own, in things that infinitely ſurpaſs our capacities; this ſuppoſition, whatever reluctance we may have to it, being far the moſt eaſy and conſiſtent of any.

Ninthly, I remarked above, that the excluſion of infinite malevolence from the divine nature, does itſelf prove the infinite benevolence of God. Let us ſee what arguments there are for this excluſion. Now, malevolence always appears to us under the idea of imperfection and miſery; and therefore infinite malevolence muſt appear to us to be infinitely inconſiſtent with the infinite power and knowledge proved, in the foregoing propoſition, to belong to the divine nature. For the ſame reaſons, infinite benevolence which always appears to us under the idea of perfection and happineſs, ſeems to be the immediate and neceſſary conſequence of the natural attributes of infinite power and knowledge: ſince the wiſhing good to others, and the endeavouring to procure it for them, is, in us, generally attended with a pleaſurable ſtate of mind, we cannot but apply this obſervation to the divine nature, in the ſame manner that we do thoſe made upon our own power and knowledge. And to deny us the liberty of doing this in the firſt caſe, would be to take it away in the laſt, and conſequently to reduce us to the abſurd and impoſſible ſuppoſition, that there is no power or knowledge in the univerſe ſuperior to our own.

Tenthly, Malevolence may alſo be excluded in the following manner: If we ſuppoſe a ſyſtem of beings to be placed in ſuch a ſituation, as that they may occaſion either much happineſs, or much miſery, to each other, it will follow, that the ſcale will turn more and more perpetually in favour of the production of happineſs; for the happineſs which *A* receives from *B*, will lead him by aſſociation to love *B*, and to wiſh and endeavour *B*'s happineſs, in return: *B* will therefore have a motive, ariſing from his deſire of his own happineſs, to continue his good offices to *A*: whereas the miſery that *A* receives from *B*, will lead him to hate *B*, and to deter him from farther injuries. This muſt neceſſarily be the caſe, if we only admit, that every intelligent being is actuated by the view of private happineſs, and that his memory and trains of ideas are of the ſame kind with ours. Now, the firſt ſuppoſition cannot be doubted, and to exclude the laſt would be to forbid all reaſoning upon other intelligent beings: not to mention that theſe two ſuppoſitions cannot, perhaps, be ſeparated, ſince the deſire of happineſs ſeems in us to be the mere reſult of aſſociation, as above explained; and aſſociation itſelf the general law, according to which the intellectual world is framed and conducted. Now this different tendency of benevolence and malevolence, viz. of the firſt to augment itſelf without limits, of the latter to deſtroy itſelf ultimately, appears to be a very ſtrong argument for the infinite benevolence of God. For, according to this, benevolence muſt ariſe in all beings, other things being alike, in proportion to their experience of good and evil, and to their knowledge of cauſes and effects. One cannot doubt, therefore, but that infinite benevolence is inſeparably connected with the ſupreme intelligence: all the higher orders of intellectual beings have, probably, higher degrees of it, in the general, and accidental differences, as we call them, being allowed for; and therefore the higheſt intelligence, the infinite mind, muſt have it in an infinite degree; and as every degree of benevolence becomes a proportional ſource of happineſs

to

to the benevolent, ſo the infinite benevolence of the ſupreme Being is the ſame thing with his infinite perfection and happineſs. In like manner, the contemplation of the infinite perfection and happineſs of God is an inexhauſtible treaſure of happineſs to all his benevolent and devout creatures; and he is infinitely benevolent to them, in giving them ſuch faculties, as, by their natural workings, make them take pleaſure in this contemplation of his infinite happineſs.

Eleventhly, A reaſon may be given not only conſiſtent with the infinite benevolence of God, but even ariſing from it, why ſome doubts and perplexities ſhould always attend our inquiries into it, and arguments for it, provided only that we ſuppoſe our preſent frame to remain ſuch as it is: for it appears from the frame of our natures, as I ſhall ſhew hereafter, and was hinted in the laſt paragraph, that our ultimate happineſs muſt conſiſt in the pure and perfect love of God; and yet, that, admitting the preſent frame of our natures, our love of God can never be made pure and perfect without a previous fear of him. In like manner, we do, and muſt, upon our entrance into this world, begin with the idolatry of external things, and, as we advance in it, proceed to the idolatry of ourſelves; which yet are inſuperable bars to a complete happineſs in the love of God. Now, our doubts concerning the divine benevolence teach us to ſet a much higher value upon it, when we have found it, or begin to hope that we have; our fears enhance our hopes, and naſcent love; and altogether mortify our love for the world, and our intereſted concern for ourſelves, and particularly that part of it which ſeeks a complete demonſtration of the divine benevolence, and its infinity, from a mere ſelfiſh motive; till at laſt we arrive at an entire annihilation of ourſelves, and an abſolute acquieſcence and complacence in the will of God, which afford the only full anſwer to all our doubts, and the only radical cure for all our evils and perplexities.

Twelfthly, It is probable, that many good reaſons might be given, why the frame of our natures ſhould be as it is at preſent, all conſiſtent with, or even flowing from, the benevolence of the divine nature; and yet ſtill that ſome ſuppoſition muſt be made, in which the ſame difficulty would again recur, only in a leſs degree. However, if we ſuppoſe this to be the caſe, the difficulty of reconciling evil with the goodneſs of God might be diminiſhed without limits, in the ſame manner as mathematical quantities are exhauſted by the terms of an infinite ſeries. It agrees with this, that as long as any evil remains, this difficulty, which is one ſpecies of evil, muſt remain in a proportional degree; for it would be inconſiſtent to ſuppoſe any one ſpecies to vaniſh before the reſt. However, if God be infinitely benevolent, they muſt all decreaſe without limits, and conſequently this difficulty, as juſt now remarked. In the mean time, we muſt not extend this ſuppoſition of evil, and of the difficulty of accounting for it, to the whole creation: we are no judges of ſuch matters; and the ſcriptures may, perhaps, be thought rather to intimate, that the mixture of good and evil is peculiar to us, than common to the univerſe, in the account which they give of the ſin of our firſt parents, in eating of the tree of the knowledge of good and evil.

Thirteenthly,

Thirteenthly, Some light may, perhaps be caſt upon this moſt difficult ſubject of the origin of evil, if we lay down the ſeveral notions of infinite goodneſs, which offer themſelves to the mind, and compare them with one another, and with the appearances of things. Let us ſuppoſe then, that we may call that infinite benevolence, which makes either.

1. Each individual infinitely happy always. Or,

2. Each individual always finitely happy, without any mixture of miſery, and infinitely ſo in its progreſs through infinite time. Or,

3. Each individual infinitely happy, upon the balance, in its progreſs through infinite time, but with a mixture of miſery. Or,

4. Each individual finitely happy in the courſe of its exiſtence, whatever that be, but with a mixture of miſery as before; and the univerſe infinitely happy upon the balance. Or,

5. Some individuals happy and ſome miſerable upon the balance, finitely or infinitely, and yet ſo that there ſhall be an infinite overplus of happineſs in the univerſe.

All poſſible notions of infinite benevolence may, I think, be reduced to ſome one of theſe five; and there are ſome perſons who think, that the infinity of the divine benevolence may be vindicated upon the laſt and loweſt of theſe ſuppoſitions. Let us conſider each particularly.

The firſt, viz. That each individual ſhould be always happy infinitely, is not only contrary to the fact at firſt view, but alſo ſeems impoſſible, as being inconſiſtent with the finite nature of the creatures. We reject it therefore as ſoon as propoſed, and do not expect, that the divine benevolence ſhould be proved infinite in this ſenſe. And yet were each individual always finitely happy according to the next ſuppoſition, we ſhould always be inclined to aſk why he had not a greater finite degree of happineſs conferred upon him, notwithſtanding the manifeſt abſurdity of ſuch a queſtion, which muſt thus recur again and again for ever.

The ſecond ſuppoſition is that which is moſt natural as a mere ſuppoſition. We think that pure benevolence can give nothing but pure happineſs, and infinite benevolence muſt give infinite happineſs. But it is evidently contrary to the fact, to what we ſee and feel, and therefore we are forced, though with great unwillingneſs, to give up this notion alſo. It may, however, be ſome comfort to us, that if we could keep this, the ſame temper of mind which makes us prefer it to the next, would ſuggeſt the queſtion, *Why not more happineſs?* again and again for ever, as juſt now remarked; ſo that we ſhould not be ſatisfied with it, unleſs our tempers were alſo altered. This, indeed, would be the caſe, becauſe, as I obſerved before, all the ſpecieſes of evil and imperfection muſt vaniſh together. But then this conſideration, by ſhewing that the endleſs recurrency of the queſtion above-mentioned, and the concomitant diſſatisfaction, are imperfections in us, ſhews at the ſame time, that they are no proper foundation for an objection to the divine benevolence.

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The third ſuppoſition is poſſible in itſelf; but then it can neither be ſupported, nor contradicted, by the facts. If there appear an unlimited tendency towards the prevalence of happineſs over miſery, this may be ſome preſumption for it. But all our judgments, and even conjectures, are confined within a ſhort diſtance from the preſent moment. A divine revelation might give us an aſſurance of it. And it ſeems, that this ſuppoſition is, upon an impartial view, equally eligible and ſatisfactory with the foregoing. We eſtimate every quantity by the balance, by what remains after a ſubtraction of its oppoſite; and if this be an allowed authentic method, in the ſeveral kinds of happineſs, why not in happineſs conſidered in the abſtract? But we muſt not conclude, that this is the genuine notion of the divine benevolence. There may perhaps be ſome preſumptions for it, both from reaſon and ſcripture; but I think none, in the preſent infancy of knowledge, ſufficient to ground an opinion upon. However, there ſeem to be no poſſible preſumptions againſt it; and this may encourage us to ſearch both the book of God's word, and that of his works, for matter of comfort to ourſelves, and arguments whereby to repreſent his moral character in the moſt amiable light.

The fourth ſuppoſition is one to which many thinking, ſerious, benevolent, and pious perſons are now much inclined. All the arguments here uſed for the divine benevolence, and its infinity, ſeem to infer it, or, if they favour any of the other ſuppoſitions, to favour the third, which may be ſaid to include this fourth. There are alſo many declarations in the ſcriptures concerning the goodneſs, bounty, and mercy of God to all his creatures, which can ſcarce be interpreted in a lower ſenſe.

As to the fifth ſuppoſition, therefore, it follows, that it is oppoſed by the preceding arguments, *i. e.* by the marks and footſteps of God's goodneſs in the creation, and by the declarations of the ſcriptures to the ſame purpoſe. However, there are a few paſſages of ſcripture, from whence ſome very learned and devout men ſtill continue to draw this fifth ſuppoſition; they do alſo endeavour to make this ſuppoſition conſiſtent with the divine benevolence, by making a farther ſuppoſition, viz. that of philoſophical liberty, as it is called in theſe obſervations, or the power of doing different things, the previous circumſtances remaining the ſame. And it is highly incumbent upon us to be humble and diffident in the judgments which we make upon matters of ſuch importance to us, and ſo much above our capacities. However, it does not appear to many other learned and devout perſons, either that the ſcripture paſſages alluded to are a proper foundation for this opinion, or that of philoſophical free-will, though allowed, can afford a ſufficient vindication of the divine attributes.

Theſe obſervations ſeem naturally to occur, upon conſidering theſe five ſuppoſitions, and comparing them with one another, and with the word and works of God. But there is alſo another way of conſidering the third ſuppoſition, which, as it is a preſumption for it, though not an evidence, agreeably to what was intimated above, I ſhall here offer to the reader.

Firſt then, Aſſociation has an evident tendency to convert a ſtate of ſuperior happineſs, mixed with inferior miſery, into one of pure happineſs, into a paradiſiacal one, as has been ſhewn in the firſt part of theſe obſervations, *Prop.* 14. *Cor.* 9. Or, in other words, aſſociation tends to convert the ſtate of the third ſuppoſition into that of the ſecond.

Secondly, When any ſmall pain is introductory to a great pleaſure, it is very common for us, without any expreſs reflection on the power of aſſociation, to conſider this pain as coaleſcing with the ſubſequent pleaſure, into a pure pleaſure, equal to the difference between them; and, in ſome caſes, the ſmall pain itſelf puts on the nature of a pleaſure, of which we ſee many inſtances in the daily occurrences of life, where labour, wants, pains, become actually pleaſant to us, by a luſtre borrowed from the pleaſures to be obtained by them. And this happens moſt particularly, when we recollect the events of our paſt lives, or view thoſe of others. It is to be obſerved alſo, that this power of uniting different and oppoſite ſenſations into one increaſes as we advance in life, and in our intellectual capacities; and that, ſtrictly ſpeaking, no ſenſation can be a monad, inaſmuch as the moſt ſimple are infinitely diviſible in reſpect of time and extent of impreſſion. Thoſe, therefore, which are eſteemed the pureſt pleaſures, may contain ſome parts which afford pain; and, converſely, were our capacities ſufficiently enlarged, any ſenſations connected to each other in the way of cauſe and effect, would be eſteemed one ſenſation, and be denominated a pure pleaſure, if pleaſure prevailed upon the whole.

Thirdly, As the enlargement of our capacities enables us thus to take off the edge of our pains, by uniting them with the ſubſequent ſuperior pleaſures, ſo it confers upon us more and more the power of enjoying our future pleaſures by anticipation, by extending the limits of the preſent time, *i. e.* of that time in which we have an intereſt. For the preſent time, in a metaphyſical ſenſe, is an indiviſible moment; but the preſent time, in a practical ſenſe, is a finite quantity of various magnitudes, according to our capacities, and, beginning from an indiviſible moment in all, ſeems to grow on indefinitely in beings who are ever progreſſive in their paſſage through an eternal life.

Suppoſe now a being of great benevolence, and enlarged intellectual capacities, to look down upon mankind paſſing through a mixture of pleaſures and pains, in which, however, there is a balance of pleaſure, to a greater balance of pleaſure perpetually, and, at laſt, to a ſtate of pure and exalted pleaſure made ſo by aſſociation: it is evident, that his benevolence to man will be the ſource of pure pleaſure to him from his power of uniting the oppoſite ſenſations, and of great preſent pleaſure from his power of anticipation. And the more we ſuppoſe the benevolence and capacities of this being enlarged, the greater and more pure will his ſympathetic pleaſure be, which ariſes from the contemplation of man. It follows therefore, that, in the eye of an infinite mind, creatures conducted, as we think, according to the third of the foregoing ſuppoſitions, are conducted according to the ſecond, and theſe according to the firſt;

or,

or, in other words, that the firſt, ſecond, and third, of the foregoing ſuppoſitions, are all one and the ſame in the eye of God. For all time, whether paſt, preſent, or future, is preſent time in the eye of God, and all ideas coaleſce into one to him; and this one is infinite happineſs, without any mixture of miſery, viz. by the infinite prepollence of happineſs above miſery, ſo as to annihilate it; and this merely by conſidering time as it ought to be conſidered in ſtrictneſs, *i. e.* as a relative thing, belonging to beings of finite capacities, and varying with them, but which is infinitely abſorbed in the pure eternity of God. Now the appearance of things to the eye of an infinite being muſt be called their real appearance in all propriety. And though it be impoſſible for us to arrive at this true way of conceiving things perfectly, or directly, yet we ſhall approach nearer and nearer to it, as our intellectual capacities, benevolence, devotion, and the purity of our happineſs, depending thereon, advance: and we ſeem able, at preſent, to expreſs the real appearance, in the ſame way as mathematicians do ultimate ratios, to which quantities ever tend, and never arrive, and in a language which bears a ſufficient analogy to other expreſſions that are admitted. So that now (if we allow the third ſuppoſition) we may in ſome ſort venture to maintain that, which at firſt ſight ſeemed not only contrary to obvious experience, but even impoſſible, viz. that all individuals are actually and always infinitely happy. And thus all difficulties relating to the divine attributes will be taken away; God will be infinitely powerful, knowing, and good, in the moſt abſolute ſenſe, if we conſider things as they appear to him. And ſurely, in all vindications of the divine attributes, this ought to be the light in which we are to conſider things. We ought to ſuppoſe ourſelves in the centre of the ſyſtem, and to try, as far as we are able, to reduce all apparent retrogradations to real progreſſions. It is alſo the greateſt ſatisfaction to the mind thus to approximate to its firſt conceptions concerning the divine goodneſs, and to anſwer that endleſs queſtion, *Why not leſs miſery, and more happineſs?* in a language which is plainly analogous to all other authentic language, though it cannot yet be felt by us on account of our preſent imperfection, and of the mixture of our good with evil. Farther, it is remarkable, that neither the fourth nor fifth ſuppoſitions can paſs into the third, and that the fifth will always have a mixture of miſery in it, as long as the *principium individuationis* is kept up. And if this be taken away, the ſuppoſitions themſelves are deſtroyed, and we entirely loſt.

I have been the longer in conſidering the divine benevolence, on account of its importance both to our duty and happineſs. There ſeems to be abundant foundation for faith, hope, reſignation, gratitude, love. We cannot doubt but the judge and father of all the world will conduct himſelf according to juſtice, mercy, and goodneſs. However, I deſire to repeat once more, that we do not ſeem to have ſufficient evidence to determine abſolutely for any of the three laſt ſuppoſitions. We cannot indeed but wiſh for the third, both from ſelf-intereſt and benevolence; and its coincidence with the firſt and ſecond, in the manner juſt now explained, appears to be ſome preſumption in favour of it.

PROP. CIV.

There is but one Being infinite in Power, Knowledge, and Goodneſs, i. e. *but one God.*

For, if we ſuppoſe more than one, it is plain, ſince the attributes of infinite power, knowledge, and goodneſs, include all poſſible perfection, that they muſt be entirely alike to each other, without the leaſt poſſible variation. They will therefore entirely coaleſce in our idea, *i. e.* be one to us. Since they fill all time and ſpace, and are all independent, omnipotent, omniſcient, and infinitely benevolent, their ideas cannot be ſeparated, but will have a numerical, as well as a generical, identity. When we ſuppoſe other beings generically the ſame, and yet numerically different, we do at the ſame time ſuppoſe, that they exiſt in different portions of time or ſpace; which circumſtances cannot have place in reſpect of the ſuppoſed plurality of infinite beings. We conclude, therefore, that there is but one infinite Being, or God.

The unity of the godhead is alſo proved by revelation, conſidered as ſupported by evidences which have no dependence on natural religion. And as this proof of the unity is of great importance even now, ſo it was of far greater in ancient times, when the world was over-run with polytheiſm. And it is highly probable to me, that as the firſt notions of the divine power, knowledge, and goodneſs, which mankind had, were derived from revelation, ſo much more were their notions of the unity of the Godhead.

PROP. CV.

God is a ſpiritual, or immaterial Being.

Since God is the cauſe of all things, as appears from the foregoing propoſitions, he muſt be the cauſe of all the motions in the material world. If therefore God be not an immaterial being, then matter may be the cauſe of all the motions in the material world. But matter is a mere paſſive thing, of whoſe very eſſence it is, to be endued with a *vis inertiæ*; for this *vis inertiæ* preſents itſelf immediately in all our obſervations and experiments upon it, and is inſeparable from it, even in idea. When we conſider any of the active powers of matter, as they are called, ſuch as gravitation, magnetiſm, electricity, or the attractions and repulſions, which take place in the coheſions and ſeparations of the ſmall particles of natural bodies, and endeavour to reſolve theſe into ſome higher and ſimpler principles, the *vis inertiæ* is always the common baſis upon which we endeavour to erect our ſolutions. For the active party, which is ſuppoſed to generate the gravitation, magnetiſm, &c. in the paſſive one, muſt have a motion, and a *vis inertiæ*, whereby it endeavous to perſiſt in that motion, elſe it could have no power; and, by parity of reaſon, the paſſive party muſt have a *vis inertiæ* alſo, elſe it could neither make reſiſtance to the active party, nor impreſs motion on foreign bodies.

bodies. Let us proceed therefore as far as we pleaſe in a ſeries of ſucceſſive ſolutions, we ſhall always find a *vis inertiæ* inherent in matter, and a motion derived to it from ſome foreign cauſe. If this cauſe be ſuppoſed matter always, we ſhall be carried on to an infinite ſeries of ſolutions, in each of which the ſame preciſe difficulty will recur, without our at all approaching to the removal of it. Whence, according to the mathematical doctrine of ultimate ratios, not even an infinite ſeries, were that poſſible in this caſe, could remove it. We muſt therefore ſtop ſomewhere, and ſuppoſe the requiſite motion to be imparted to the ſubtle matter, by ſomething, which is not matter, *i. e.* ſince God is the ultimate author of all motion, we muſt ſuppoſe him to be immaterial.

The ſame thing may be inferred thus: if there be nothing but matter in the world, then the motions and modifications of matter muſt be the cauſe of intelligence. But even finite intelligences, ſuch as that of man, for inſtance, ſhew ſo much ſkill and deſign in their conſtitution, as alſo to ſhew, that their cauſes, *i. e.* the appropriated motions and modifications of matter, muſt be appointed and conducted by a prior and ſuperior intelligence. The infinite intelligence of God therefore, proved in *Prop.* 102. ſince it reſults from the motions and modifications of matter, requires another infinite intelligence to direct theſe motions, which is abſurd. God is therefore proved to be immaterial from his infinite intelligence.

It is true, indeed, that our ſenſes convey nothing to us but impreſſions from matter; and, therefore, that we can have no expreſs original ideas of any things, beſides material ones; whence we are led to conclude, that there is nothing but matter in the univerſe. However, this is evidently a prejudice drawn from our ſituation, and an argument taken merely from our ignorance, and the narrowneſs of our faculties. Since therefore, on the other hand, mere matter appears quite unable to account for the ſimpleſt and moſt ordinary phænomena, we muſt either ſuppoſe an immaterial ſubſtance, or elſe ſuppoſe, that matter has ſome powers and properties different and ſuperior to thoſe which appear. But this laſt ſuppoſition is the ſame in effect as the firſt, though, on account of the imperfection of language, it ſeems to be different.

At the ſame time it ought to be obſerved, that if a perſon acknowledges the infinite power, knowledge, and goodneſs of God, the proofs of which are prior to, and quite independent on, that of his immateriality, this perſon acknowledges all that is of practical importance. But then, on the other hand, it is alſo to be obſerved, that the opinion of the materiality of the divine nature has a tendency to leſſen our reverence for it, and, conſequently, to invalidate the proofs of the divine power, knowledge, and goodneſs.

How far the ſcriptures deliver the immateriality of God in a ſtrict philoſophical ſenſe, may perhaps be doubted, as their ſtyle is in general popular. However, there is a ſtrong preſumption, that they teach this doctrine, ſince the popular ſenſe and natural interpretation of many ſublime paſſages concerning the divine nature infer its immate-

riality. There is therefore ſome evidence for this attribute, to be taken from revelation, conſidered as ſtanding upon its own diſtinct proofs.

COROLLARY. Since God is immaterial, matter muſt be one of the works of his infinite power. In the mean time, this does not ſeem to me to exclude the poſſibility of its having exiſted from all eternity. But then, neither have we, on the other hand, any reaſon to conclude, that the whole material ſyſtem, or any part of it, could not have been created in time. It is, perhaps, moſt probable, *i. e.* ſuitable to the divine attributes, that infinite material worlds have exiſted from all eternity. But it becomes us, in all theſe things, to diſtruſt our own reaſonings and conjectures to the utmoſt.

PROP. CVI.

God is an eternal and omnipreſent Being.

GOD'S eternity, *à parte ante*, appears from *Prop.* 101. in which his independency is proved; and the eternity, *à parte poſt*, is inſeparably connected with that *à parte ante*. Both are alſo included in the idea of infinite power, or of infinite knowledge; and, indeed, when we ſay, that God is eternal *à parte ante*, and *à parte poſt*, we do, we can, mean no more, than to ſay, that his power and knowledge extend to all times. For we muſt not conceive, or affirm, that he exiſts in ſucceſſion, as finite beings do; through whoſe imaginations, or intellects, trains of ideas paſs. All time, as was ſaid before, is equally preſent to him, though in a manner of which we cannot form the leaſt conception.

In like manner, by God's omnipreſence, or ubiquity, we muſt be underſtood to mean, that his power and knowledge extend to all places. For as time, and its exponent, the ſucceſſion of ideas, is a thing that relates merely to finite beings; ſo ſpace and place relate, in their original ſenſe, to material ones only; nor can we perceive any relation that they bear to immaterial ones, unleſs as far as we feign a reſemblance between material and immaterial beings, which is ſurely an inconſiſtent fiction. We cannot, therefore, diſcover any relation which ſpace or place bear to the divine exiſtence. It is a ſufficient acknowledgment both of God's eternity and omnipreſence, that we believe his power and knowledge to extend to all times and places, though we be entirely at a loſs how to conceive or expreſs the manner of this infinite extent of theſe attributes. And there is a remarkable agreement between innumerable paſſages of the ſcriptures, and this practical notion of God's eternity and omnipreſence.

PROP. CVII.

God is an immutable Being.

THIS follows from the infinity of the divine power, knowledge, and goodneſs, *i. e.* from his infinite perfection. For if the divine nature admitted of any variation, it would alſo admit of different kinds and degrees of perfection, and therefore could not always be infinitely perfect. This is the moſt abſtracted and philoſophical way of conſidering the divine immutability. In a popular and practical ſenſe, it excludes all that which we call inconſiſtent, arbitrary, and capricious, in finite beings; and becomes a ſure foundation for hope, truſt, and reſignation. We may conſider ourſelves as being at all times, and in all places, equally under the direction and protection of the ſame infinite power, knowledge, and goodneſs, which are ſo conſpicuous in the frame of the viſible world.

PROP. CVIII.

God is a free Being.

THE authors who have treated upon the divine nature and attributes, uſually aſcribe liberty or freedom to God, and ſuppoſe it to be of a nature analogous to that free-will which they aſcribe to man. But it appears to me, that neither the philoſophical, nor popular liberty, as they are defined below in *Prop.* 113, 114. can be at all applied to God. Thus, we can neither apply to God the power of doing different things, the previous circumſtances remaining the ſame, nor a voluntary generated power of introducing ideas, or performing motions; nor any thing analogous to either of theſe powers, without the groſſeſt anthropomorphitiſm.

But liberty is alſo uſed in another ſenſe, viz. as the negation of, and the freedom from, a ſuperior, compelling force; and in this ſenſe it may and muſt be applied to the Deity; his independency and infinity including it. And in this ſenſe it is contrary to the notion of thoſe heathens, who ſuppoſed even God himſelf ſubject to fate.

Upon the whole, if by liberty, freedom, or free-will, be meant any thing great or glorious, God certainly has it; if otherwiſe, certainly not. Thus, if it mean freedom from a ſuperior compelling cauſe of any kind, as in the laſt paragraph, God certainly has it, he being the cauſe of cauſes, the univerſal, the one only cauſe. If it mean, that God could have made an univerſe leſs perfect than that which actually exiſts, he certainly has it not, becauſe this would make God leſs perfect alſo. And here it ſeems to be a thing eſtabliſhed amongſt writers on this matter, to maintain, that God is ſubject to a moral neceſſity, and to the perfection of his own nature; which expreſſions, however, are to be conſidered as nothing more than particular ways of aſſerting the infinity of the divine power, knowledge, and goodneſs. If it be ſaid, that God might have made a different univerſe, equally perfect with that which now exiſts, and that his

freedom

freedom conſiſts in this, the anſwer ſeems to be, that we are entirely loſt here, in the infinities of infinities, &c. *ad infinitum*, which always have exiſted, and always will exiſt, with reſpect to kind, degree, and every poſſible mode of exiſtence. One cannot, in the leaſt, preſume either to deny or affirm this kind of freedom of God, ſince the abſolute perfection of God ſeems to imply both entire uniformity, and infinite variety in his works. We can here only ſubmit, and refer all to God's infinite knowledge and perfection.

PROP. CIX.

Holineſs, Juſtice, Veracity, Mercy, and all other moral Perfections, ought to be aſcribed to God in an infinite Degree.

I HAVE in the laſt four propoſitions treated of ſuch attributes of the divine nature, as have a more immediate connection with the natural ones of independency, infinite power, and infinite knowledge. I come now to thoſe, that are deducible from, and explanatory of the moral one, viz. of the divine benevolence.

The chief of theſe ſeem to be holineſs, juſtice, veracity, and mercy. Theſe are aſcribed to all earthly ſuperiors, to whom we pay reſpect and love, and therefore muſt belong, in the popular and practical ſenſe, to him, who is the higheſt object of reverence and affection. Let us ſee how each is to be defined, and what relation they bear to benevolence.

Firſt, then, Holineſs may be defined by moral purity and rectitude. And theſe, when applied to the Deity, can only denote the rectitude of his actions towards his creatures. If therefore he be benevolent to all his creatures, he cannot but have moral purity and rectitude.

The ſame thing may be conſidered thus: all moral turpitude in us proceeds from our ſelfiſh fears or deſires, made more irregular and impetuous through our ignorance, and other natural imperfections. But none of theſe cauſes can take place with reſpect to the Deity; he muſt therefore be free from all moral turpitude.

Juſtice is that which gives to every one according to his deſerts, at leaſt as much as his good deſerts require, and not more than is ſuitable to his evil ones. But this is evidently included in the divine benevolence, even according to the fifth of the ſuppoſitions, mentioned *Prop.* 103. by thoſe who defend that ſuppoſition, and, according to the third and fourth, by the common conſent of all, and the plain reaſon of the thing. No man can deſerve more from his Creator than a balance of happineſs proportional to his merit, which is the fourth ſuppoſition; and conſequently the divine benevolence, according to the third ſuppoſition, in which the balance of happineſs is infinite, includes ſtrict juſtice, and infinitely more. And all this will hold equally, whether we define deſert in the popular, practical way, by the three meritorious principles of action, benevolence, piety, and the moral ſenſe, alone; or by theſe, with

with the additional ſuppoſition of philoſophical liberty, if we embrace either the third or fourth ſuppoſitions. Philoſophical liberty is indeed neceſſary for the vindication of the divine benevolence and juſtice, according to the fifth ſuppoſition, in the opinion of moſt of thoſe who hold this ſuppoſition. But then they eſteem it to be alſo ſufficient for this purpoſe, and conſequently maintain the divine juſtice, into which we are now inquiring.

It may alſo be reckoned a part of juſtice not to let offenders go unpuniſhed, or eſcape with too ſlight a degree of puniſhment; the order and happineſs of the world, *i. e.* benevolence, requiring, that frail men ſhould be deterred from vice by the dreadful examples of others, and miſchievous perſons diſarmed. However, this does not at all hinder, but that the ſame perſons, who are thus puniſhed and diſarmed, may afterwards receive a balance of happineſs, finite or infinite. And thus punitive juſtice may be reconciled to bounty and benevolence, according to the third or fourth ſuppoſitions.

Veracity in men is, the obſervance of truth, and fidelity in all their declarations and promiſes to others; and the obligation to it ariſes from its great uſefulneſs in all the intercourſes of mankind with each other, and the extreme miſchiefs which fiction and fraud occaſion in the world. And it cannot be doubted, but that the divine benevolence, according to any of the ſuppoſitions above made, includes what is analogous to this moral quality in men.

In like manner, it cannot be doubted but that the divine benevolence includes mercy, or all that tenderneſs to offenders which the order and happineſs of the world will permit. Or, If the fifth ſuppoſition made concerning the divine benevolence be found to exclude it, this will be a ſtrong argument for rejecting that ſuppoſition.

I have here ſhewn in what manner we may vindicate theſe attributes of the divine nature, from the whole of things, *i. e.* the courſe of events, both as they now appear in the preſent ſtate, and as we expect they will appear in a future one. But God has alſo given us ſufficient general evidences of theſe his relative moral attributes, from the preſent ſtate alone; at the ſame time that, if we extend our views no farther, ſome difficulties and perplexities will ariſe in reſpect of certain particulars. I will mention ſome both of the evidences and difficulties in regard to each of theſe four attributes of holineſs, juſtice, veracity, and mercy.

It might be expected, that God, if he thought fit to inſtitute a religion by revelation, ſhould inſtitute one in which holineſs and moral purity ſhould be eminently injoined, and moral turpitude prohibited in the moſt awful manner. And it is a remarkable coincidence of things, and evidence of the divine purity, that the Jewiſh and Chriſtian religions ſhould both have this internal proof, and the moſt cogent external ones in their favour. Whilſt on the contrary, the impure Pagan religions had all the external marks of fiction and forgery.

The

The voice of conſcience, or the moral ſenſe, within a man, however implanted or generated, injoining moral rectitude, and forbidding moral turpitude, and accordingly acquitting or condemning, rewarding or puniſhing, bears witneſs, in like manner, to the moral rectitude of that univerſal cauſe from whom it muſt proceed ultimately.

At the ſame time there are difficulties in revealed religion, and deviations in the moral ſenſe, much contrary to what we ſeem to expect from our firſt notions of the divine rectitude.

Since God is juſt, we may expect that virtue will be the ſource of happineſs, vice that of miſery, even in this world. And ſo we find it in general; at the ſame time that there are many particular exceptions of both kinds.

The veracity of God ſeems to engage him to take care, that all thoſe intimations which may be reckoned calls and cautions of nature, ſhould give us right information; alſo that all perſons who have the apparent credentials of being ſent from him, *i. e.* thoſe of performing miracles, ſhould be in truth ſo ſent. And all things concur, in general, to verify both theſe poſitions. There are, however, ſeveral particular exceptions, as is well known.

Mercy requires, that ſuch perſons as repent and amend ſhould have opportunities of freſh trial, and of retrieving, afforded them. And this is remarkably ſo in the general. Moſt men are tried again and again before their healths, fortunes, credit, &c. become irrecoverable. And yet there are ſome inſtances of extraordinary ſeverity upon the very firſt offence.

Now it may be obſerved of all theſe inſtances, that the general tenor is ſufficient to eſtabliſh the attributes here aſſerted; it being reaſonable to expect, from our ignorance of the preſent ſtate, and much more from that of the future one, that great difficulties and exceptions muſt occur to us. And as theſe unſearchable judgments of God ſerve to humble us, and make us ſenſible of our ignorance, they even concur with the general tenor.

PROP. CX.

God is to be conſidered by us, not only as our Creator, but alſo as our Governor, Judge, and Father.

THAT God is our Creator, is evident from *Prop.* 100, 101, 102; in which his independency and infinite power are eſtabliſhed, from the neceſſity which we finite and dependent beings have of an infinite and independent Creator: and this appellation belongs to him alone.

The three following appellations are firſt applied to earthly ſuperiors; and therefore belong to God only in an analogical ſenſe. It is, however, a ſenſe of infinite importance to be acknowledged and regarded by us: let us therefore, ſee in what manner analogies drawn from language, and from the phænomena of nature, lead us to call God our governor, judge, and father.

As

As God is our creator, he has, according to the analogy of language, a right to diſpoſe of us, to govern and judge us, and is alſo our father in a much higher ſenſe than our natural parents, who are only occaſional cauſes, as it were, of our exiſtence. In like manner, his infinite power and knowledge entitle him to be our governor, and his infinite benevolence to be our father: the intimations alſo which he gives of his will, both in his word and works, and the rewards and puniſhments which he beſtows in the way of natural conſequences, as we term it, all ſhew, that he is our governor and judge. And as the moral attributes aſſerted in the laſt propoſition may be deduced from theſe appellations of governor, judge, and father, eſtabliſhed on independent principles, ſo they, when proved by their own peculiar evidences, infer theſe appellations: all which may be ſummed up in this general poſition, that the events of life, and the uſe of language, beget ſuch trains of ideas and aſſociations in us, as that we cannot but aſcribe all morally good qualities, and all venerable and amiable appellations, to the Deity; at the ſame time that we perceive the meaning of our expreſſions not to be ſtrictly the ſame, as when they are applied to men; but an analogical meaning, however a higher, more pure, and more perfect one. The juſtneſs of this application is farther confirmed by the common conſent of all ages and nations, and by the whole tenor of the ſcriptures.

If it be ſaid, that ſince this method of ſpeaking is not ſtrictly literal and true, but merely popular and anthropomorphitical, it ought to be rejected; I anſwer, that even the attributes of independency, omnipotence, omniſcience, and infinite benevolence, though the moſt pure, exalted, and philoſophical appellations, to which we can attain, fall infinitely ſhort of the truth, of repreſenting the Deity as he is, but are mere popular and anthropomorphitical expreſſions. And the ſame might ſtill be ſaid for ever of higher and more pure expreſſions, could we arrive at them: they would ever be infinitely deficient, and unworthy of God. But then it appears from the preceding propoſitions, and other writings of a like nature, that, if we will conſider the phænomena of the world, and argue from them ſufficiently, we muſt needs ſee and acknowledge, that there is an infinite being, and that power, knowledge, and goodneſs, are his character. We cannot get rid of this internal feeling and conviction, but by refuſing to conſider the ſubject, and to purſue the train of reaſoning, which our own faculties, or the preceding inquiries of others, will lead us to. God is not to be eſteemed an unreal being, or deſtitute of all character, becauſe he is infinite and incomprehenſible, or becauſe we have not adequate phraſes whereby to denote his exiſtence and attributes. On the contrary, his infinite nature ſeems ſtrongly to argue, that exiſtence, power, knowledge, and goodneſs, do really and properly belong to him alone; and that what we call ſo here on earth, in our firſt and literal ſenſes, are mere ſhadows and figures of the true realities. And it would be in vain to bid us reject this language, ſince it muſt recur again and again from the frame of our natures, if we purſue the ſubject. In like manner, the relative moral attributes of holineſs,

juſtice, veracity, mercy, &c. and the relative moral appellations of governor, judge, and father, &c. are inſeparably connected with the uſe of language, and the courſe and conſtitution of the viſible world. We ſee that things have happened, and muſt believe, that they will hereafter happen (*i. e.* in the general, and allowing for particular exceptions, as above remarked), after ſuch a manner as theſe attributes and appellations intimate to us: they are, conſequently, a convenient and highly uſeful method of ranging and explaining paſt events, and predicting future ones, and therefore may be uſed for this purpoſe; nay, they muſt be ſo uſed, ſince the events of life thus ranged, explained, and predicted by them, do neceſſarily ſuggeſt them to us, and impreſs upon us this their uſe, admitting only the real exiſtence of God, and his infinite power, knowledge, and goodneſs; which, as was juſt now ſhewn, cannot but be admitted, if men will think ſufficiently on the ſubject. However, ſince the uſe of theſe relative moral attributes and appellations is popular, and attended with particular exceptions; whereas that of the attributes of infinite power, knowledge, and goodneſs, is more philoſophical and extenſive, it will be proper to bear this in mind; and where there appears to be any oppoſition between the popular and philoſophical language, to interpret that in ſubordination to this.

Corollary. The doctrine of Providence, general and particular, may be conſidered as a conſequence from the foregoing attributes and appellations of the divine nature. By general providence, I mean the adjuſting all events to the greateſt good of the whole; by particular, the adjuſting all to the greateſt good of each individual; and, conſequently, by both together, the adjuſting the greateſt good of the whole, and of each individual, to each other; ſo that both ſhall fall exactly upon the ſame point. However difficult this may ſeem, I take it to be the genuine conſequence of the foregoing propoſitions. Infinite power, knowledge, and goodneſs, muſt make our moſt kind and merciful Father both able and willing to effect this: it does, therefore, actually take place, though we cannot ſee it. However, that there are many marks both of general and particular providence, as thus explained, is ſufficiently evident, and acknowledged by all: both theſe appear alſo to be aſſerted in the ſcriptures.

The following obſervation affords a ſtrong evidence for a particular providence. When a perſon ſurveys the events of his paſt life, he may find many, which have happened much contrary to natural expectation, and his then deſires, which yet appear extremely beneficial and deſirable at the now preſent time, as alſo to have proceeded from natural cauſes then unknown to him. Now, we may conclude from hence, that God conceals the tendencies and reſults of the courſe of nature at the then preſent time, leſt we ſhould truſt in that, and forſake him; but diſcovers them afterwards with their harmonies and uſes, that we may ſee his goodneſs, knowledge, and power, in them, and ſo truſt *him* in future perplexities. It is analogous to this, that the ſcripture prophecies are inexplicable before the event, and often ſufficiently clear afterwards.

PROP.

PROP. CXI.

The Manner of Reaſoning here uſed, in reſpect of the Courſe and Conſtitution of Nature, has a Tendency to beget in us Love and Reverence towards God, and Obedience to his Will: or, in other Words, there is a Religion of Nature properly ſo called.

NATURAL religion appears to be uſed in different ſenſes by different writers: however, they are all, I think, reducible to the three that follow, and will all be found to coincide ultimately, though they may appear different at firſt view.

The Firſt Senſe, in which natural religion may be uſed, is that of this propoſition; in which it is put for that love and reverence towards God, and obedience to his will, which the light of nature, or the conſideration of the works of God, enjoins. In this ſenſe it is moſt properly oppoſed to, and contradiſtinguiſhed from, revealed religion, or thoſe affections and actions towards God, which the ſcripture, or the word of God, enjoins.

Secondly, Natural religion may be defined ſuch a regulation of the affections and actions as the moral ſenſe requires: for the moral ſenſe is part of the light of nature, and of our natural faculties, whether it be conſidered as an inſtinct, or as the generated reſult of external impreſſions and our natural frame taken together, according to what is delivered in the firſt part of theſe obſervations; and this moral ſenſe approves and commands, or diſapproves and forbids, certain diſpoſitions of mind, and bodily actions flowing therefrom. It is alſo called the law of firſt inſcription by many perſons, and under that term diſtinguiſhed from the law of revelation, which is ſuppoſed poſterior to it in order of time. Hence the ſame perſons conſider the moral ſenſe, or law of firſt inſcription, as the foundation of natural religion: and, indeed, moſt perſons either expreſsly adopt, or implicitly refer to, this definition of natural religion in their writings and diſcourſes. The heathen world, not having the immediate light of revelation, are ſuppoſed to have had nothing more than the mere light of nature, and mere natural religion; and they ſeem to have been chiefly directed by the ſenſe of what was fit, right, and proper, upon the occaſion, *i. e.* by the moral ſenſe. Natural religion may therefore, according to this way of conſidering it, be properly defined by the moral ſenſe.

Thirdly, Natural religion may be defined by rational ſelf-intereſt, *i. e.* it may be called ſuch a regulation of our affections and actions, as will procure for us our *ſummum bonum*, or greateſt poſſible happineſs. If we ſuppoſe the inquiries of the ancients concerning the *ſummum bonum* to have been of a religious and moral nature, then will this definition be ſuitable to their notions. However, it has a very important uſe, viz. that of compelling us to be attentive, impartial, and earneſt in the inquiry.

I will now proceed, firſt, to prove the propoſition, or to deduce love and reverence to God, and obedience to his will, from the preceding method of reaſoning concerning

the courſe and conſtitution of nature; and, ſecondly, to ſhew the perfect agreement of all theſe three definitions of natural religion with each other.

Now it is at once evident, that the conſideration of the infinite power, knowledge, and goodneſs of God, of his holineſs, juſtice, veracity, and mercy, and of his being our creator, governor, judge, and father, muſt inſpire us with the higheſt love and reverence for him, and beget in us that tendency to comply with his will, which, according to the proper uſe of language, is called a ſenſe of *duty*, *obligation*, of what we *ought* to do. It is evident alſo, that the will of God muſt be determined by his attributes and appellations. He muſt therefore will, that we ſhould apply to him, as we do to earthly ſuperiors of the ſame character, purifying, however, and exalting our affections to the utmoſt; that we ſhould be merciful, holy, juſt, &c. in imitation of him, and becauſe this is to concur with him in his great deſign of making all his creatures happy; and laſtly, that we ſhould ſo uſe the pleaſures of ſenſe, and the enjoyments of this world, as not to hurt ourſelves or others. There is therefore a courſe of action regarding God, our neighbour, and ourſelves, plainly enjoined by the light of nature; or, in the words of the propoſition, there is a religion of nature properly ſo called.

I come, in the next place, to ſhew the agreement of the ſecond and third definitions of natural religion with the firſt, or with that of the propoſition.

Now, that compliance with the moral ſenſe coincides with obedience to the will of God, needs no proof, it being the firſt and immediate dictate of the moral ſenſe, that it is fit, right, and our neceſſary duty, to obey God, as ſoon as he is diſcovered with the amiable and awful attributes and appellations above aſcribed to him. There is, therefore, an entire agreement between the firſt and ſecond definitions. It may appear alſo, that the firſt rule of duty is neceſſary to perfect the ſecond. For the moral ſenſe, as will appear from the preceding hiſtory of its riſe and growth, muſt be vague and uncertain, and vary according to the various circumſtances of life. But the moral character of God, as delivered in the foregoing propoſitions, affords a plain rule of life, applicable and preciſe in the various circumſtances of it. When, therefore, obedience to the will of God is eſtabliſhed by the moral ſenſe, it does, in return, become a regulator to this, determine its uncertainties, and reconcile its inconſiſtencies. And, agreeably to this, we may obſerve, that the perfection of the moral ſenſe is, in general, proportional to the perfection of our notions of the divine nature; and that the idolatry of the heathens, and their ignorance of the true God, muſt have produced an utter perverſion and corruption of their moral ſenſe, agreeably to the declarations of the ſcriptures; which is a remarkable coincidence of reaſon with revelation.

In like manner, it needs no proof, that rational ſelf-intereſt, and obedience to the will of God, are the ſame thing. Our only hope and ſecurity, here and hereafter, muſt be in our obedience to him, who has all power and all knowledge. And thus the firſt and third definitions are found to be perfectly coincident. The ſecond and third, therefore, *i. e.* the whole three, are coincident alſo.

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This coincidence might be confirmed by numberleſs inſtances, were we to conſider and compare together the dictates of the moral character of God, of our own moral ſenſe, properly directed, and of rational ſelf-intereſt in the ſeveral particular circumſtances of life. But this would be to anticipate what I have to ſay in the third chapter of this ſecond part concerning the rule of life.

PROP. CXII.

Natural Religion receives great Light and Confirmation from Revealed.

It ſeems to be the opinion of ſome perſons, that revealed religion is entirely founded upon natural; ſo that unleſs natural religion be firſt eſtabliſhed upon its own proper evidences, we cannot proceed at all to the proof of revealed. If this were ſo, revealed religion could not caſt any light or evidence upon natural, but what it had before received from it; and conſequently, this propoſition would be built upon that falſe way of reaſoning which is called arguing in a circle. But there are certainly independent evidences for revealed religion, as well as for natural; they both receive light and confirmation from each other; and this mutual confirmation is a ſtill farther evidence for both. I will give a ſhort account of all theſe particulars, that the propoſition may the more fully appear.

Firſt, Natural religion has independent evidences. This has been the buſineſs of the foregoing propoſitions, and particularly of the laſt, to ſhew. And indeed, it is acknowledged by all, unleſs they be atheiſts or ſceptics. We are certainly able to infer the exiſtence and attributes of God, with our relation and duty to him, from the mere conſideration of natural phænomena, in the ſame manner as we do any concluſions in natural philoſophy. And though our evidence here may not perhaps be demonſtrative, it is certainly probable in the higheſt degree.

Secondly, Revealed religion has alſo independent evidences. For, if we allow the miracles mentioned in the Old and New Teſtaments, the genuineneſs and accompliſhment of the prophecies contained therein, and the moral characters of Chriſt, the prophets and apoſtles, it will be impoſſible not to pay the greateſt regard to the doctrines and precepts which they deliver, *i. e.* to revealed religion. We do, and we muſt always give credit to perſons much ſuperior to ourſelves in natural and moral endowments. Theſe endowments ſtrike us with awe and reverence, engage our attention, humble us, and put us into a teachable, flexible diſpoſition. And I appeal to all thoſe, who do really believe the miracles and moral characters of Chriſt, the prophets and apoſtles, and the accompliſhment of the prophecies delivered by them, whether they do not immediately find themſelves in this humble, teachable diſpoſition of mind, upon conſidering theſe credentials of a divine miſſion, and that excluſively of all other conſiderations. As to thoſe who do not ſuppoſe Chriſt, the prophets and apoſtles,

apoſtles, to have had theſe credentials, they can ſcarce be proper judges, what would be the genuine conſequence of a ſtate of mind, of a belief, which they have not. However, one may appeal even to them, provided they will only ſuppoſe theſe credentials true for a moment, in order to ſee what would then follow. And it is a ſtrong argument of the juſtneſs of this reaſoning, that all thoſe who reject revealed religion, do alſo reject the credentials, *i. e.* the truth of the ſcripture hiſtory. Revealed religion is therefore built upon the truth of the ſcripture hiſtory, *i. e.* upon the external evidences commonly called hiſtorical and prophetical. But theſe evidences are to be tried in the ſame manner as the evidences for any other hiſtory, and have no more connection with natural religion, and its evidences, ſuch, for inſtance, as thoſe delivered in this chapter, than the evidences for the *Greek* or *Roman* hiſtory. So that revealed religion has evidences, and thoſe of the ſtrongeſt kind, entirely independent on natural religion.

Thirdly, Natural religion receives much light and confirmation from revealed, agreeably to the propoſition here to be proved. This follows both becauſe revealed religion, now ſhewn to have its independent evidences, teaches the ſame doctrines concerning God, as I have remarked already in ſeveral places, and delivers the ſame precepts to man, in the general as natural; and becauſe theſe very independent evidences, viz. the miracles and moral characters of Chriſt, the prophets and apoſtles, and the accompliſhment of their prophecies, have a direct and immediate tendency to beget in us a deep ſenſe and conviction of a ſuperior power, and of his providence and moral government over the world. So that if a man ſhould either be ignorant of the chain of reaſoning by which the exiſtence and attributes of God and natural religion are proved from the phænomena of the world, or ſhould, from ſome depravation of mind, intellectual or moral, be diſpoſed to call in queſtion this chain of reaſoning, in whole or in part; he muſt however come to the ſame concluſions, from the mere force of the hiſtorical and prophetical evidences in favour of the ſcriptures. And this is a thing of the utmoſt importance to mankind, there being many who are incapable of purſuing this chain of reaſoning, many who, though capable, are diſinclined to it, many who from their vices have a contrary inclination, and ſome who ſeeing the perplexity and obſcurity that attend ſome ſubordinate parts of this reaſoning, are diſpoſed to doubt about the whole. For though ſomething of the ſame kind holds in reſpect of the hiſtorical and prophetical evidences for the truth of the ſcriptures, eſpecially of the laſt, yet, in general, theſe are more level to the capacities of the inferior ranks amongſt mankind, and more ſimple and ſtriking, than the independent evidences for natural religion; and if they were but equally convincing, they would, however, make the evidence double upon the whole. Not to mention, that it is an inexpreſſible ſatisfaction to the beſt men, and the ableſt philoſophers, thoſe who have the moſt entire conviction from natural reaſon, to have this new and diſtinct ſupport for ſuch important truths. It may be added as an argument in favour of the reaſoning of this paragraph, *i. e.* of the propoſition

propoſition here to be proved, to thoſe who believe revealed religion, that God has thought fit to teach mankind natural religion chiefly by means of revealed.

Fourthly, Revealed religion receives great light and confirmation from natural. For if we ſuppoſe a perſon to be firſt inſtructed in the doctrines and precepts of natural religion, and to be entirely convinced of their truth and fitneſs from the mere light of reaſon, and then to have the ſcriptures communicated to him, the conformity of theſe with his previous notions would be a ſtrong evidence in their favour, *i. e.* in favour of the miracles, prophecies, and thoſe doctrines which are peculiar to revealed religion. When, farther, he came to perceive, that many of the writers of the ſacred books lived when the truths of natural religion were unknown to the reſt of the world, and that many alſo were of ſo low a rank in life, that they cannot be ſuppoſed to have known even ſo much as the reſt of the world did, by natural means, he will be ſtrongly inclined to allow them that ſupernatural light which they claim, *i. e.* to allow their divine authority.

Laſtly, The mutual light and confirmation which natural and revealed religion caſt upon each other, and the analogy which there is between their proper evidences, and even that between the ſeveral obſcurities and perplexities that attend each, are a new argument in favour of both, conſidered as united together, and making one rule of life, and the charter of a happy immortality. For reſemblance, agreement, and harmony of the parts, are the peculiar characteriſtics of truth, as inconſiſtency and ſelf-contradiction are of fiction and falſehood.

PROP. CXIII.

Religion preſuppoſes Free-will in the popular and practical Senſe, i. e. *it preſuppoſes a voluntary Power over our Affections and Actions.*

For religion being the regulation of our affections and actions according to the will of God, it preſuppoſes, that after this will is made known to us, and we, in conſequence thereof, become deſirous of complying with it, a ſufficient power of complying with it ſhould be put into our hands. Thus, for inſtance, ſince religion commands us to love God and our neighbour, it preſuppoſes that we have the power of generating theſe affections in ourſelves, by introducing the proper generating cauſes, and making the proper aſſociations, *i. e.* by meditation, religious converſation, reading practical books of religion, and prayer. Since religion requires of us to perform beneficent actions, and to abſtain from injurious ones, alſo to abſtain from all thoſe ſelf-indulgences, which would be hurtful to ourſelves, it preſuppoſes, either that we have a power of ſo doing, or at leaſt a power of generating ſuch diſpoſitions of mind, as will enable us ſo to do. Farther, it preſuppoſes that we have a power of making perpetual improvement in virtuous affections and actions, ſince this alſo is required of us by it. Still farther, ſince

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religion requires of a man this regulation of his affections and actions, and ſince the powers hitherto mentioned are all grounded upon a ſufficient deſire thus to regulate himſelf, it muſt preſuppoſe a power of generating this ſufficient deſire, and ſo on till we come to ſomething which the man is already poſſeſſed of, as part of his mental frame, either conferred in a ſupernatural way, or acquired in the uſual courſe of nature. For religion, in requiring the powers above-mentioned, requires alſo whatever previous powers are neceſſary to the actual exertion of theſe powers. But all theſe powers, of whatever order they are, the laſt excepted, are thoſe powers over our affections and actions, which I have, in the foregoing part of this work, endeavoured to derive from aſſociation, and ſhewn to be the ſame with thoſe which are commonly called voluntary powers. It follows, therefore, that religion requires voluntary powers over our affections and actions, or free-will in the popular and practical ſenſe.

This may be illuſtrated by the conſideration of the ſtate of madmen, idiots, children, and brutes, in reſpect of religion. For as they are all eſteemed to be incapable of religion, and exempted from the obligation thereof, ſo the reaſon of this in all is evidently, that they are deſtitute of the proper voluntary powers over their affections and actions; the aſſociations requiſite thereto having never been formed in idiots, children, and brutes, and being confounded and deſtroyed in madmen. For ſuppoſe the child to be grown up, and the madman to recover his ſenſes, *i. e.* ſuppoſe the aſſociations requiſite for the voluntary powers to be generated or reſtored, and religion will claim them as its proper ſubjects.

In like manner, it may be obſerved, that when any action is commended or blamed, this is always done upon ſuppoſition, that the action under conſideration was the effect of voluntary powers. Thus, when a man commits an action otherwiſe blameable, through inattention, ignorance, or diſeaſe, he is excuſed on account of its being involuntary; unleſs the inattention, ignorance, or diſeaſe, were themſelves voluntary, and then the blame remains. But commendation and blame are ideas that belong to religion: it appears therefore, that voluntary powers muſt belong to it alſo.

I aſſerted above, that religion not only requires and preſuppoſes the common voluntary powers, by which we perform and forbear actions, and new-model our affections, but alſo whatever elſe, voluntary or involuntary, is neceſſary for the actual exertion of theſe powers. And the connection between theſe points ſeems to be immediate and undeniable; to require any thing, muſt be to require all that is neceſſary for that thing. And yet, ſince all men do not act up to the precepts of religion, it ſeems undeniable, on the other hand, that ſome want ſomething that is neceſſary, immediately or mediately, for the actual exertion of the proper voluntary powers over their affections and actions. Now, I ſee no way of extricating ourſelves from this difficulty, but by ſuppoſing, that thoſe who want this one neceſſary thing at preſent, will, however, obtain it hereafter, and that they who ſhall obtain it at any diſtant future time, may be ſaid to have obtained it already, in the eye of him to whom paſt, preſent,

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and future, are all preſent, *who quickeneth the dead, and calleth the things that be not as though they were.* For that the ſuppoſition of free-will, in the philoſophical ſenſe, cannot ſolve this difficulty, will appear, I think, in the next propoſition.

Corollary. It may be reckoned ſome confirmation of religion, that the voluntary powers which it requires, according to this propoſition, are an evident fact, and alſo that they are deducible from the frame of our natures, *i. e.* from our original faculties, and the law of aſſociation, taken together. For thus religion may be ſaid to harmonize with obſervation, and with the nature of man, its ſubject.

PROP. CXIV.

Religion does not preſuppoſe Free-will in the philoſophical ſenſe, i. e. *it does not preſuppoſe a Power of doing different Things, the previous Circumſtances remaining the ſame.*

For, Firſt, It has been ſhewn, in the foregoing part of this work, that we do not, in fact, ever exert any ſuch power in the important actions of our lives, or the ſtrong workings of our affections, all theſe being evidently determinable by the previous circumſtances. There are therefore no actions or affections left, except trifling and evaneſcent ones, in which religion can preſuppoſe philoſophical free-will, or liberty; and even here the evidence for it is merely an *argumentum ab ignorantiâ.* But if religion requires philoſophical liberty at all, it muſt require it chiefly in the moſt important actions and affections. It does not therefore require it at all. We cannot ſuppoſe religion to be at variance with common obſervation, and the frame of our natures.

Secondly, Some reaſons have been given already, in the firſt part of this work, and more will be added in the next propoſition, to ſhew that philoſophical liberty cannot take place in man, but is an impoſſibility. It is therefore impoſſible, that religion ſhould require it.

Thirdly, It appears from the courſe of reaſoning uſed under the foregoing propoſition, that all which religion does require and preſuppoſe, is, firſt, a ſufficient deſire, hope, fear, ſelf-intereſt, or other ſuch like motive, and then ſufficient voluntary powers, whereby to regulate our affections and actions agreeably to the will of God. But philoſophical liberty, or the power of doing different things, the previous circumſtances remaining the ſame, is ſo far from being required, in order to our obtaining any of theſe requiſites, that it is inconſiſtent with them. For the ſufficient deſire, &c. unleſs it be given by God in a ſupernatural way, is of a factitious nature, and follows the previous circumſtances with a rigorous exactneſs; in like manner the voluntary powers are all generated according to the law of aſſociation, which law operates in a mechanical neceſſary way, and admits of no variations, while the circumſtances remain the ſame; all which is, I preſume, ſufficiently evident to thoſe who have well conſidered the foregoing part of this work. Theſe requiſites are therefore inconſiſtent with philoſophical

liberty, inaſmuch as this implies, that though there be a deſire ſufficient to cauſe the exertion of the will, this exertion may or may not follow; alſo, that though the voluntary powers depending on this exertion be completely generated by aſſociation, they may or may not follow it in fact. This ſuppoſition is indeed abſurd at firſt ſight; however, if it be admitted for a moment, in order to ſee what would follow, it is manifeſt, that the man will be rendered leſs able to comply with the will of God thereby, and that it will not add to, but take away from, the requiſites propoſed by religion. Philoſophical liberty does not therefore help us to ſolve the difficulty mentioned under the laſt propoſition, but, on the contrary, increaſes it.

If it ſhould be ſaid, that we are not to ſuppoſe the deſire ſufficient, and the voluntary powers complete, and then farther to ſuppoſe, that theſe may or may not take effect, but only to ſuppoſe deſire in general, ſufficient or inſufficient, and voluntary powers in general, complete or incomplete, and that thus it will not be unreaſonable to ſuppoſe, that they may or may not take effect; whence the manifeſt abſurdity mentioned in the laſt paragraph will be removed; I anſwer, that this is to deſert the hypotheſis of philoſophical liberty, the previous circumſtances being ſuppoſed different, that ſo their conſequences may be different alſo. If any particular degree of deſire or voluntary power be fixed upon, and all the other concurring circumſtances of body and mind fixed likewiſe, *i. e.* if the previous circumſtances be rigorouſly determinate, which is the ſuppoſition of philoſophical liberty, this one fixed, determinate degree of deſire, or voluntary power, cannot have the two oppoſite epithets of ſufficient and inſufficient, or of complete or incomplete, both predicated of it with truth, define ſufficiency or completeneſs as you pleaſe. Philoſophical liberty does not therefore allow us to ſuppoſe deſire or voluntary power in general, in order that they either may or may not take effect.

Fourthly, It will appear, that religion does not preſuppoſe philoſophical liberty, if we enter upon the examination of thoſe arguments which are commonly brought to ſhew that it does. Theſe are, that unleſs philoſophical liberty be admitted, there will be no foundation for commendation or blame, and conſequently no difference between virtue and vice; that all puniſhment for actions, uſually called vicious, will be unjuſt; and that God will be the author of ſuch actions, which it is impious to ſuppoſe; inaſmuch as the notion of popular liberty is not ſufficient to obviate theſe difficulties. Now, to this I anſwer, that there are two different methods of ſpeaking, and, as it were, two different languages, uſed upon theſe ſubjects; the one popular, and, when applied to God, anthropomorphitical; the other philoſophical; and that the notion of popular liberty is ſufficient to obviate theſe difficulties, while we keep to the popular language alone; alſo, that the philoſophical language does of itſelf obviate theſe difficulties, while we keep to it alone; but that, if we mix theſe languages, then, and not till then, inſuperable difficulties will ariſe, as might well be expected. Let us conſider each of theſe poſitions particularly.

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Firſt then, I ſay that the ſuppoſition of popular liberty is ſufficient to obviate the forementioned difficulties, whilſt we keep to the popular language alone. For, in the popular language, a man is commended and blamed merely for the right or wrong uſe of his voluntary powers; the firſt is called virtue, the laſt vice; and rewards and puniſhments are ſaid to be reſpectively due to them. Thus, when a man, having an opportunity to do a beneficent action, exerts an act of will, and, in conſequence thereof does it, he is commended for it; it is called a virtue, or a right uſe of his voluntary powers, and is ſaid to deſerve a reward; whereas, had he, in like circumſtances, done a malevolent action, he would have been blamed for it; it would have been called a wrong uſe of his voluntary powers, or a vice; and a puniſhment inflicted upon him, in conſequence hereof, would have been ſaid to be juſt. This is a mere hiſtory of the fact, and a narration of the method in which the words here conſidered acquire their proper ſenſes; and I appeal to the general tenor of writings and diſcourſes for the ſupport of what is here aſſerted. If no voluntary action be exerted, the words commendation, right uſe, virtue, reward, on one hand, alſo the words, blame, wrong uſe, vice, puniſhment, on the other, become entirely unapplicable. If there be, and the motive be good, ſuppoſe piety or benevolence, the firſt ſet of words take place; if the motive be bad, the laſt. Men, in the common uſe of language, never conſider whether the agent had it in his power to have done otherwiſe, the previous circumſtances remaining the ſame; they only require, that he ſhould have done a beneficent action, from a benevolent intention. If they find this, they will apply the words, commendation, right uſe, &c. And the ſame holds in reſpect of injurious actions, and malevolent intentions. The agent will, in this caſe, be blamed, and ſaid to be juſtly puniſhed, without any farther inquiry. Sometimes, indeed, they do inquire farther, viz. into the original of theſe intentions. But then this comes to the ſame thing at laſt; for if theſe intentions were generated voluntarily, it enhances the commendation or blame due to them; if, in great meaſure, involuntarily, abates it. Popular liberty, or voluntary powers, do therefore afford ſufficient foundation for commendation and blame, for the difference between virtue and vice, and for the juſtice of puniſhing vice, according to the popular language. Where it is to be remarked, that whatever will juſtify puniſhments inflicted by men, will juſtify thoſe inflicted by God in like circumſtances, ſince juſtice is aſcribed to God only in a popular and anthropomorphitical ſenſe.

And as popular liberty ſuffices for the forementioned purpoſes, whilſt we uſe the popular language, ſo it vindicates God from the charge of being the author of ſin, according to the ſame language. For, according to this, all voluntary actions are aſcribed to men, not to God; but ſin, or vice, always preſuppoſes an exertion of a voluntary power, according to the popular language; therefore ſin muſt be aſcribed to man, and not to God, as long as we continue to ſpeak the popular language.

Secondly, I ſay, that if we keep to the philoſophical language alone, it will obviate all difficulties, and enable us to talk conſiſtently and clearly upon theſe ſubjects. For,

according to this, virtue and vice are to actions, what ſecondary qualities are to natural bodies, *i. e.* only ways of expreſſing the relation which they bear to happineſs and miſery, juſt as the ſecondary qualities of bodies are only modifications of the primary ones. And the ſame may be ſaid of all the other words belonging to the moral ſenſe. Hence it follows, that, according to the philoſophical language, we are to conſider all the moral appellations of actions as only denoting their relation to natural good and evil, and that moral good and evil are only compoſitions and decompoſitions of natural. There is, however, a difference between moral good and moral evil, becauſe they are different and oppoſite compoſitions; they may alſo be attended with different and oppoſite compoſitions, from the frame of our natures, and circumſtances of our lives, ſuch as commendation and blame.

And as juſtice in God is, by the ſame language, exalted into benevolence, he may inflict puniſhment, *i. e.* another ſpecies of natural evil, juſtly, provided it be conſiſtent with benevolence, *i. e.* with a balance of happineſs. Man may alſo inflict puniſhment juſtly, provided he does it according to ſome definition of juſtice amongſt men, previouſly ſettled and allowed, ſuppoſe compliance with the will of God, the laws of ſociety, the greater good of the whole, &c.

Farther, ſince all the actions of man proceed ultimately from God, the one univerſal cauſe, we muſt, according to this language, annihilate ſelf, and aſcribe all to God. But then, ſince vice, ſin, &c. are only modifications and compoſitions of natural evil, according to the ſame language, this will only be to aſcribe natural evil to him; and, if the balance of natural good be infinite, then even this natural evil will be abſorbed and annihilated by it.

It may a little illuſtrate what is here delivered, to remark, that as we ſhould not ſay of a ſuperior being, whoſe ſight could penetrate to the ultimate conſtitution of bodies, that he diſtinguiſhed colours, but rather, that he diſtinguiſhed thoſe modifications of matter which produce the appearances of colours in us, ſo we ought not to aſcribe our ſecondary ideas of virtue and vice to ſuperior intelligences, and much leſs to the ſupreme.

Thirdly, I ſay, that if we mix theſe two languages, many difficulties and abſurdities muſt enſue from this previous abſurdity. Thus, if, retaining the popular notions of moral good and evil, we ſuppoſe God according to the philoſophical language, to be benevolent only, *i. e.* to regard only natural good and evil, or to be the author of all actions, the conſequence will be impious. If we adhere to the philoſophical notions of virtue and vice, we muſt not retain the popular notion of God's juſtice, inaſmuch as puniſhment will then be unjuſt; as it will alſo be, if we join the popular notion of God's juſtice with the philoſophical one, of his being the author of all actions. Laſtly, if we allow man to conſider himſelf as the author of his own actions, he muſt alſo conſider virtue and vice according to the popular notions, and conceive of God as endued with the popular attribute of juſtice, in order to be incited to virtue, and

deterred

deterred from vice; whereas, could man really annihilate himſelf, and refer all to God, perfect love would caſt out fear, he would immediately become partaker of the divine nature, and, being one with God, would ſee him to be pure benevolence and love, and all that he has made to be good.

The following remark may perhaps contribute to illuſtrate this matter. Virtue and vice, merit and demerit, reward and puniſhment, are applied to voluntary actions only, as before-mentioned. Hence they are eſteemed unapplicable to involuntary ones. But involuntary actions are neceſſary by a neceſſity *ab extra*, which is generally ſeen; and becauſe the neceſſity *ab intra*, which cauſes voluntary actions, is ſeldom ſeen, theſe are ſuppoſed not to be neceſſary. Hence not neceſſary, and neceſſary, are put for voluntary and involuntary, reſpectively; and moral appellations ſuppoſed peculiar to the firſt, *i. e.* not neceſſary; inconſiſtent with the laſt, *i. e.* neceſſary. Hence, when we come to diſcover our miſtake, and to find, that voluntary actions are neceſſary, an inconſiſtency ariſes; we apply moral appellations to them as voluntary from a primary aſſociation, deny theſe appellations of them on account of their new denomination of neceſſary, and a ſecondary and tralatitious aſſociation. Here then, if we can either perſiſt in our miſtake, and ſtill ſuppoſe voluntary actions not to be neceſſary; or, finding this miſtake, can however perſiſt to apply moral appellations to ſuch neceſſary actions as are voluntary, from the primary aſſociation; or, laſtly, not being able to withſtand the force of the ſecondary aſſociation, whereby moral appellations are denied of neceſſary actions, voluntary as well as involuntary, can perceive that moral good and evil are only compoſitions of natural, *i. e.* if we can either ſee the whole truth, or ſhut our eyes againſt that part that offends us; no difficulty will ariſe.

Philoſophical liberty is alſo ſuppoſed by ſome neceſſary, in order to ſolve the origin of evil, and to juſtify the eternity of puniſhment; and the obviating of theſe difficulties is brought as an argument in ſupport of it. Now here I obſerve,

Firſt, That the origin of evil may be made conſiſtent with the benevolence of God, by ſuppoſing that every creature has a balance of happineſs; and, conſequently, ſince this is a ſuppoſition highly probable, there ſeems to be little need of philoſophical liberty for this purpoſe.

Secondly, That, ſince this ſuppoſition is highly probable, the eternity of puniſhment is highly improbable; and, conſequently, that philoſophical liberty may be needleſs here alſo.

Thirdly, That philoſophical liberty will not ſolve the origin of evil. The method of reaſoning uſed here is ſome ſuch as this. If man have not philoſophical liberty, but always does the ſame thing, where the previous circumſtances are the ſame, then all his actions are to be referred to God; conſequently, if he have philoſophical liberty, all his actions need not be referred to God; he is an independent creature in ſome things, and is himſelf alone chargeable with ſome of his actions. Let man act wrong in theſe independent caſes, and the evil which follows will be chargeable upon man, and not

God,

God, *i. e.* the origin of evil will be accounted for. But here it is to be obſerved, that there are ſome evils, or ſufferings, which cannot be ſuppoſed to ariſe from the abuſe of free-will in the creature that ſuffers, as in the pains which happen to children juſt born, and to brutes. Theſe evils are not therefore chargeable upon *them*. If, therefore, they be chargeable upon free-will, it muſt be the free-will of ſome other creature. But this is as great a difficulty, as that which it is brought to ſolve; and cannot be ſolved but by ſuppoſing that God gives a balance of happineſs to *A*, for what he ſuffers from *B*. Now this ſuppoſition, in its full extent, will ſolve the firſt difficulty, and make the hypotheſis of free-will entirely unneceſſary, as obſerved above. But, beſides this, it is to be conſidered, that ſince free-will is thus the occaſion of introducing evil into the world, the reſtleſs, ſelfiſh, objecting creature will aſk why he has free-will, ſince it is not this, but happineſs, which *he* deſires, and hoped from the divine benevolence, the attribute now to be vindicated. He that produces any cauſe, does, in effect, produce the thing cauſed. To give a being a power of making itſelf miſerable, if this being uſe that power, is juſt the ſame thing, in him who has infinite power and knowledge, as directly making him miſerable; and appears to be no otherwiſe conſiſtent with benevolence to that being, than upon ſuppoſition, that ſuperior happineſs is conferred upon him afterwards. Now this removes the difficulty in the caſe of neceſſity, as well as of free-will, in the eye of reaſon, of an infinite being; and claſhes leſs and leſs without limits with the imagination, as we advance in intellect, diſintereſtedneſs, and abſolute reſignation to God.

If it be ſaid, that God could not but beſtow free-will upon his creatures, I anſwer, that this is *gratis dictum*, there not being the leaſt appearance of evidence for it; alſo, that it is making God ſubject to a neceſſity ſuperior to himſelf, which would be to raiſe a greater difficulty than it ſolves, and, upon the whole, we may conclude, that the ſuppoſition of free-will, or liberty, in the philoſophical ſenſe, does not at all help us to account for the origin of evil.

Fourthly ſince free-will cannot account for finite evil, much leſs can it account for infinite, *i. e.* for the eternity of puniſhment. And indeed many, who receive free-will, do, however, ſee its inſufficiency for this purpoſe, and, in conſequence thereof, believe that the puniſhments of a future ſtate will not be eternal. It is true, indeed, that the arguments againſt the eternity of puniſhment are ſhorter, ſtronger, and clearer, upon the ſuppoſition of neceſſity, of God's being the real, ultimate author of all actions, than upon the ſuppoſition of free-will. But then this ſeems, if all things be duly conſidered, to be rather a preſumption in favour of the doctrine of neceſſity, than otherwiſe.

The invention and application of the hypotheſis of free-will, for the vindication of the divine benevolence, has probably ariſen from the application of what paſſes in human affairs, in too ſtrict a manner, to the relation between the Creator and his creatures, *i. e.* to an anthropomorphitiſm of too groſs a kind. Thus the actions of a ſon are free, in

reſpect

reſpect of his father, *i. e.* though the father can, and does influence the ſon in many things, yet the ſon's actions depend upon many circumſtances, impreſſions, aſſociations, &c. in which the father has no concern. It will therefore be a ſufficient vindication of the father's benevolence to the ſon, if he has taken care, that the ſon ſuffers nothing from the things over which the father has power. What evils happen to the ſon, from quarters where the ſon is free in reſpect of his father, *i. e.* uninfluenced by him, theſe are no ways to be referred to the father. Now, it is very natural for humble and pious men, in conſidering the ſins and miſeries of mankind, to ſuppoſe that we have ſome ſuch powers independent of God; and that all the evil, which happens to each perſon, is to be derived from theſe independent powers. But then this notion ſhould not be haſtily and blindly embraced and maintained, without an examination of the fact, and of the conſiſtency of ſuch a notion with piety, in other reſpects. The firſt of theſe points I have already conſidered in the foregoing part of this work; the laſt I ſhall now conſider in the following propoſition.

PROP. CXV.

The natural Attributes of God, or his infinite Power and Knowledge, exclude the Poſſibility of Free-will in the philoſophical Senſe.

For, to ſuppoſe that man has a power independent of God, is to ſuppoſe, that God's power does not extend to all things, *i. e.* is not infinite. If it be ſaid, that the power itſelf depends upon God, but the exertion of it upon man, the ſame difficulty will recur; ſince the exertion does not depend upon God, there will be ſomething produced in the world, which is not the effect of his power, *i. e.* his power will not extend to all things, conſequently not be infinite. And the ſame thing holds, if we refine farther, and proceed to the exertion of the exertion, &c. If this depend upon man, God's power will be limited by man's; if upon God, we return to the hypotheſis of neceſſity, and of God's being the author of all things. However, the ſimpleſt and cleareſt way is to ſuppoſe, that power, and the exertion of power, are one and the ſame thing; for power is never known but by its actual exertion, *i. e.* is no power till it be exerted. If, indeed, we ſay that man's actions depend both upon God and himſelf, this ſeems at firſt ſight to ſolve the difficulty. Since they depend upon God, his power may be infinite; ſince they depend on man, they may be aſcribed to *him*. But then the thing in man on which they depend, call it what you pleaſe, muſt either depend upon God or not; if it does, neceſſity returns; if not, God's infinite power is infringed. And the ſame thing will hold, as it appears to me, in any other way of ſtating this matter.

Again, to ſuppoſe that a man may do either the action *A*, or its oppoſite *a*, the previous circumſtances remaining the ſame, is to ſuppoſe that one of them may ariſe without a cauſe; for the ſame previous circumſtances cannot be the cauſe of the two oppoſite

oppoſite effects. Now, if any thing can ariſe without a cauſe, all things may, by parity of reaſon; which is contrary to the firſt propoſition of this chapter, or to the common foundation upon which writers have erected their arguments for the being and attributes of God. To ſay that free-will is the cauſe, is an identical propoſition; ſince it is ſaying, that the power of doing different things, the previous circumſtances remaining the ſame, is the cauſe that this may be done, viz. that either *A* or *a* may follow the ſame previous circumſtances. Or, if we put for philoſophical free-will the power of doing things without a cauſe, it will be a word of nearly the ſame import as chance. For chance is the ignorance or denial of a cauſe. It will therefore be as unfit to aſcribe a real cauſality to free-will as to chance.

And as free-will is inconſiſtent with the infinite power of God, ſo it is with his infinite knowledge alſo. For infinite knowledge muſt include the knowledge of all future things, as well as of all paſt and preſent ones. Beſides, paſt, preſent and future, are all preſent with reſpect to God, as has been obſerved before. Infinite knowledge muſt therefore include preſcience. But free-will does not allow of preſcience. Knowledge of all kinds preſuppoſes the certainty of the thing known, *i. e.* preſuppoſes that it is determined in reſpect of time, place, manner, &c. *i. e.* preſuppoſes it to be neceſſary. Thus, if we conſider any thing as known certainly, or certain ſimply, ſuch as a mathematical truth, a paſt fact, &c. we ſhall find it to be neceſſary, and that it cannot be otherwiſe than it now is, or was formerly; which is the contrary to what is ſuppoſed of the actions of creatures endued with free-will. Theſe actions, therefore, cannot be known, or foreknown, not being the objects of knowledge.

The maintainers of neceſſity do indeed deny, that there is any ſuch thing as uncertainty at all; unleſs as far as this is put relatively for the limitation of knowledge in any being, ſo that the thing called uncertain may or may not be, for any thing that this being knows to the contary. But if they do, for argument's ſake, allow ſuch a thing as abſolute uncertainty, *i. e.* that a thing either may or may not be, it is plain, that this abſolute uncertainty muſt include the relative, *i. e.* exclude knowledge and foreknowledge. That action of *B* which either may or may not be, cannot be known certainly to be by *A*, becauſe it may not be; it cannot be known not to be, becauſe it may be. Suppoſe *A* to make conjectures concerning any future action of *B*. Then this action may or may not be, for any thing *A* knows to the contrary; it alſo may or may not be in itſelf, provided there be any ſuch thing as abſolute uncertainty. Suppoſe *A*'s conjectures to paſs into a well-grounded probability of a high degree, that the action will happen, then both the relative and abſolute *may not*, are reduced to narrow limits. Suppoſe *A*'s conjectures to ariſe to knowledge, or certainty, then both the relative and abſolute *may not*, vaniſh. *A* cannot know, or be certain, that a thing will happen, at the ſame time that it may or may not happen for any thing that he knows to the contrary; nor can a thing be relatively certain, and abſolutely uncertain. *A*'s foreknowledge does therefore imply relative certainty; this requires abſolute certainty; and

abſolute certainty is in expreſs terms oppoſite to philoſophical free-will. Foreknowledge is therefore inconſiſtent with free-will; or rather free-will, if it were poſſible, would exclude foreknowledge. It is not therefore poſſible.

Nor does it alter the caſe here to allege, that God's infinite knowledge muſt extend infinitely farther than man's, and, conſequently, may extend to things uncertain in themſelves, ſince the very terms *knowledge* and *uncertain* are inconſiſtent. To make them conſiſtent, we muſt affix ſome new and different ſenſe to one of them, which would be to give up either the divine foreknowledge or free-will in reality, while we pretend in words to maintain them. If God's knowledge be ſuppoſed to differ ſo much from man's in this ſimple eſſential circumſtance, that the certainty of it does not imply the certainty of the thing known, we loſe all conception of it. And if the ſame liberties were uſed with the divine power and benevolence, we ſhould loſe all conception of the divine nature.

To which it may be added, that the reaſoning in the laſt paragraph but one, concerning the knowledge of the being *A*, is not at all affected, or altered, by his rank, as to intelligence. Suppoſe his intellectual capacities to be greater and greater perpetually, ſtill all things remain preciſely the ſame, without the leaſt variation. They will therefore, according to the analogy of ultimate ratios, remain preciſely the ſame though his knowledge be ſuppoſed infinite. It follows, therefore, that God's infinite and certain knowledge, or his foreknowledge, is as inconſiſtent with philoſophical free-will, as man's finite, but certain, knowledge or foreknowledge.

CHAP. II.

Of the TRUTH *of the* CHRISTIAN RELIGION.

To believe the chriſtian religion, is to believe that *Moſes* and the prophets, *Chriſt* and his apoſtles, were endued with divine authority, that they had a commiſſion from God to act and teach as they did, and that he will verify their declarations concerning future things, and eſpecially thoſe concerning a future life, by the event; or, in other words, it is to receive the ſcriptures as our rule of life, and the foundation of all our hopes and fears. And as all thoſe who regulate their faith and practice by the ſcriptures are chriſtians; ſo all thoſe who diſclaim that name, and paſs under the general title of unbelievers, do alſo diſavow this regard to the ſcriptures. But there are various claſſes of unbelievers. Some appear to treat the ſcriptures as mere forgeries; others allow them to be the genuine writings of thoſe whoſe names they bear, but ſuppoſe them to

abound with fictions, not only in the miraculous, but alſo in the common part of the hiſtory; others again, allow this part, but reject that; and, laſtly, there are others who ſeem to allow the truth of the principal facts, both common and miraculous, contained in the ſcriptures, and yet ſtill call in queſtion its divine authority, as a rule of life, and an evidence of a happy futurity under Chriſt our ſaviour and king. He, therefore, that would ſatisfy himſelf or others in the truth of the chriſtian religion, as oppoſed by theſe ſeveral claſſes of unbelievers, muſt inquire into theſe three things.

Firſt, The genuineneſs of the books of the Old and New Teſtaments.

Secondly, The truth of the principal facts contained in them, both common and miraculous. And,

Thirdly, Their divine authority.

I will endeavour, therefore, to ſtate ſome of the chief evidences for each of theſe important points, having firſt premiſed three preparatory propoſitions, or lemmas, whereby the evidence for any one of them may be transferred upon the other two.

PROP. CXVI.

The Genuineneſs of the Scriptures proves the Truth of the principal Facts contained in them.

For, Firſt, It is very rare to meet with any genuine writings of the hiſtorical kind, in which the principal facts are not true; unleſs where both the motives which engaged the author to falſify, and the circumſtances which gave ſome plauſibility to the fiction, are apparent; neither of which can be alleged in the preſent caſe with any colour of reaſon. Where the writer of a hiſtory appears to the world as ſuch, not only his moral ſenſe, but his regard to his character and his intereſt, are ſtrong motives not to falſify in notorious matters; he muſt therefore have ſtronger motives from the oppoſite quarter, and alſo a favourable conjuncture of circumſtances, before he can attempt this.

Secondly, As this is rare in general, ſo it is much more rare, where the writer treats of things that happened in his own time, and under his own cognizance or direction, and communicates his hiſtory to perſons under the ſame circumſtances. All which may be ſaid of the writers of the ſcripture hiſtory.

That this, and the following arguments, may be applied with more eaſe and clearneſs, I will here, in one view, refer the books of the Old and New Teſtaments to their proper authors. I ſuppoſe then, that the Pentateuch conſiſts of the writings of *Moſes*, put together by *Samuel*, with a very few additions; that the books of *Joſhua* and *Judges* were, in like manner, collected by him; and the book of *Ruth*, with the firſt part of the firſt book of *Samuel*, written by him; that the latter part of the firſt book of *Samuel*, and the ſecond book, were written by the prophets who ſucceeded *Samuel*, ſuppoſe *Nathan* and *Gad*; that the books of *Kings* and *Chronicles* are extracts from the records of the ſucceeding prophets concerning their own times, and from the public genealogical

genealogical tables, made by *Ezra*; that the books of *Ezra* and *Nehemiah* are collections of like records, ſome written by *Ezra* and *Nehemiah*, and ſome by their predeceſſors; that the book of *Eſther* was written by ſome eminent *Jew*, in or near the times of the tranſaction there recorded, perhaps *Mordecai*; the book of *Job* by a *Jew* of an uncertain time; the *Pſalms* by *David*, and other pious perſons; the books of *Proverbs* and *Canticles* by *Solomon*; the book of *Eccleſiaſtes* by *Solomon*, or perhaps by a *Jew* of later times, ſpeaking in his perſon, but not with an intention to make him paſs for the author; the prophecies by the prophets whoſe names they bear; and the books of the New Teſtament by the perſons to whom they are uſually aſcribed. There are many internal evidences, and in the caſe of the New Teſtament many external evidences alſo, by which theſe books may be ſhewn to belong to the authors here named. Or, if there be any doubts, they are merely of a critical nature, and do not at all affect the genuineneſs of the books, nor alter the application of theſe arguments, or not materially. Thus, if the Epiſtle to the *Hebrews* be ſuppoſed written, not by St. *Paul*, but by *Clement* or *Barnabas*, or any other of their cotemporaries, the evidence therein given to the miracles performed by Chriſt, and his followers, will not be at all invalidated thereby.

Thirdly, The great importance of the facts mentioned in the ſcriptures makes it ſtill more improbable, that the ſeveral authors ſhould either have attempted to falſify, or have ſucceeded in ſuch an attempt. This is an argument for the truth of the facts, which proves the genuineneſs of the books at the ſame time, as I ſhall ſhew below in a diſtinct propoſition. However, the truth of the facts is inferred more directly from their importance, if the genuineneſs of the ſcriptures be previouſly allowed. The ſame thing may be obſerved of the great number of particular circumſtances of time, place, perſons, &c. mentioned in the ſcriptures, and of the harmony of the books with themſelves, and with each other. Theſe are arguments both for the genuineneſs of the books, and truth of the facts diſtinctly conſidered, and alſo arguments for deducing the truth from the genuineneſs. And indeed the arguments for the general truth of the hiſtory of any age or nation, where regular records have been kept, are ſo interwoven together, and ſupport each other in ſuch a variety of ways, that it is extremely difficult to keep the ideas of them diſtinct, not to anticipate, and not to prove more than the exactneſs of method requires one to prove. Or, in other words, the inconſiſtency of the contrary ſuppoſitions is ſo great, that they can ſcarce ſtand long enough to be confuted. Let any one try this in the hiſtory of *France* or *England*, *Greece* or *Rome*.

Fourthly, If the books of the Old and New Teſtaments were written by the perſons to whom they were aſcribed above, *i. e.* if they be genuine, the moral characters of theſe writers afford the ſtrongeſt aſſurance, that the facts aſſerted by them are true. Falſehoods and frauds of a common nature ſhock the moral ſenſe of common men, and are rarely met with, except in perſons of abandoned characters: how inconſiſtent then muſt thoſe of the moſt glaring and impious nature be with the higheſt moral characters!

That ſuch characters are due to the ſacred writers, appears from the writings themſelves by an internal evidence; but there is alſo ſtrong external evidence in many caſes; and indeed this point is allowed in general by unbelievers. The ſufferings which ſeveral of the writers underwent both in life and death, in atteſtation of the facts delivered by them, is a particular argument in favour of theſe.

Fifthly, The arguments here alleged for proving the truth of the ſcripture hiſtory from the genuineneſs of the books, are as concluſive in reſpect of the miraculous facts, as of the common ones. But beſides this we may obſerve, that if we allow the genuineneſs of the books to be a ſufficient evidence of the common facts mentioned in them, the miraculous facts muſt be allowed alſo, from their cloſe connection with the common ones. It is neceſſary to admit both or neither. It is not to be conceived, that *Moſes* ſhould have delivered the *Iſraelites* from their ſlavery in *Egypt*, or conducted them through the wilderneſs for forty years, at all, in ſuch manner as the common hiſtory repreſents, unleſs we ſuppoſe the miraculous facts intermixed with it to be true alſo. In like manner, the fame of Chriſt's miracles, the multitudes which followed him, the adherence of his diſciples, the jealouſy and hatred of the chief prieſts, ſcribes and phariſees, with many other facts of a common nature, are impoſſible to be accounted for, unleſs we allow, that he did really work miracles. And the ſame obſervations hold in general of the other parts of the ſcripture hiſtory.

Sixthly, There is even a particular argument in favour of the miraculous part of the ſcripture hiſtory, to be drawn from the reluctance of mankind to receive miraculous facts. It is true, that this reluctance is greater in ſome ages and nations than in others; and probable reaſons may be aſſigned why this reluctance was, in general, leſs in ancient times than in the preſent (which, however, are preſumptions that ſome real miracles were then wrought): but it muſt always be conſiderable from the very frame of the human mind, and would be particularly ſo amongſt the *Jews* at the time of Chriſt's appearance, as they had then been without miracles for four hundred years, or more. Now this reluctance muſt make both the writers and readers very much upon their guard; and if it be now one of the chief prejudices againſt revealed religion, as unbelievers unanimouſly aſſert, it is but reaſonable to allow alſo, that it would be a ſtrong check upon the publication of a miraculous hiſtory at or near the time when the miracles were ſaid to be performed, *i. e.* it will be a ſtrong confirmation of ſuch an hiſtory, if its genuineneſs be granted previouſly.

And, upon the whole, we may certainly conclude, that the principal facts, both common and miraculous, mentioned in the ſcriptures, muſt be true, if their genuineneſs be allowed. The objection againſt all miraculous facts will be conſidered below, after the other arguments for the truth of the ſcripture miracles have been alleged.

The converſe of this propoſition is alſo true, *i. e.* if the principal facts mentioned in the ſcriptures be true, they muſt be genuine writings. And though this converſe propoſition may, at firſt ſight, appear to be of little importance for the eſtabliſhment of chriſtianity, inaſmuch as the genuineneſs of the ſcriptures is only made uſe of as a medium

medium whereby to prove the truth of the facts mentioned in them, yet it will be found otherwiſe upon farther examination. For there are many evidences for the truth of particular facts mentioned in the ſcriptures, ſuch, for inſtance, as thoſe taken from natural hiſtory, and the cotemporary profane hiſtory, which no ways preſuppoſe, but, on the contrary, prove the genuineneſs of the ſcriptures; and this genuineneſs, thus proved, may, by the arguments alleged under this propoſition, be extended to infer the truth of the reſt of the facts. Which is not to argue in a circle, and to prove the truth of the ſcripture hiſtory from its truth; but to prove the truth of thoſe facts, which are not atteſted by natural or civil hiſtory, from thoſe which are, by the medium of the genuineneſs of the ſcriptures.

PROP. CXVII.

The Genuineneſs of the Scriptures proves their divine Authority.

THE truth of this propoſition, as it reſpects the book of *Daniel*, ſeems to have been acknowledged by *Porphyry*, inaſmuch as he could no ways invalidate the divine authority of this book, implied by the accompliſhment of the prophecies therein delivered, but by aſſerting, that they were written after the event, *i. e.* were forgeries. But the ſame thing holds of many of the other books of the Old and New Teſtaments, many of them having unqueſtionable evidences of the divine foreknowledge, if they be allowed genuine. I reſerve the prophetical evidences to be diſcuſſed hereafter, and therefore ſhall only ſuggeſt the following inſtances here, in order to illuſtrate the propoſition, viz. *Moſes*'s prophecy concerning the captivity of the *Iſraelites*, of a ſtate not yet erected; *Iſaiah*'s concerning *Cyrus*; *Jeremiah*'s concerning the duration of the *Babyloniſh* captivity; Chriſt's concerning the deſtruction of *Jeruſalem*, and the captivity that was to follow; St. *John*'s concerning the great corruption of the chriſtian church; and *Daniel*'s concerning the fourth empire in its declenſion; which laſt was extant in *Porphyry*'s time at leaſt, *i. e.* before the events which it ſo fitly repreſents.

The ſame thing follows from the ſublimity and excellence of the doctrines contained in the ſcriptures. Theſe no ways ſuit the ſuppoſed authors, *i. e.* the ages when they lived, their educations or occupations; and therefore, if they were the real authors, there is a neceſſity of admitting the divine aſſiſtance.

The converſe of this propoſition, viz. that the divine authority of the ſcriptures infers their genuineneſs, will, I ſuppoſe, be readily acknowledged by all. And it may be uſed for the ſame purpoſes as the converſe of the laſt. For there are ſeveral evidences for the divine authority of the ſcriptures, which are direct and immediate, and prior to the conſideration both of their genuineneſs, and of the truth of the facts contained in them. Of this kind is the character of Chriſt, as it may be collected from his diſcourſes and actions related in the goſpels. The great and manifeſt ſuperiority of this to all other characters, real and fictitious, proves, at once, his divine miſſion,

miſſion, excluſively of all other conſiderations. Suppoſe now the genuineneſs of St. *Luke*'s goſpel to be deduced in this way, the genuineneſs of the *Acts* of the Apoſtles may be deduced from it, and of St. *Paul*'s epiſtles from the *Acts*, by the uſual critical methods. And when the genuineneſs of the *Acts* of the Apoſtles, and of St. *Paul*'s Epiſtles, is thus deduced, the truth of the facts mentioned in them will follow from it by the laſt propoſition; and their divine authority by this.

PROP. CXVIII.

The Truth of the principal Facts contained in the Scriptures proves their divine Authority.

THIS propoſition may be proved two ways; Firſt, excluſively of the evidences of natural religion, ſuch as thoſe delivered in the laſt chapter; and, Secondly, from the previous eſtabliſhment of the great truths of natural religion. And, Firſt,

It is evident, that the great power, knowledge, and benevolence, which appeared in Chriſt, the prophets and apoſtles, according to the ſcripture accounts, do, as it were, command aſſent and ſubmiſſion from all thoſe who receive theſe accounts as hiſtorical truths; and that, though they are not able to deduce, or have not, in fact, deduced the evidences of natural religion; nay, though they ſhould have many doubts about them. The frame of the human mind is ſuch, that the ſcripture hiſtory, allowed to be true, muſt convince us, that Chriſt, the prophets and apoſtles, were endued with a power greater than human, and acted by the authority of a being of the higheſt wiſdom and goodneſs.

Secondly, If natural religion be previouſly eſtabliſhed, the truth of the principal facts of the ſcriptures proves their divine authority, in an eaſier and more convincing manner.

For, Firſt, The power ſhewn in the miracles wrought by Chriſt, the prophets and apoſtles, the knowledge in their prophecies, and their good moral characters, ſhew them to be, in an eminent manner, the children, ſervants, and meſſengers, of him, who is now previouſly acknowledged to be infinite in power, knowledge, and goodneſs.

Secondly, Chriſt, the prophets and apoſtles, make an expreſs claim to a divine miſſion. Now, it cannot be reconciled to God's moral attributes of juſtice, veracity, mercy, &c. that he ſhould permit theſe perſons to make ſuch a claim falſely, and then endue them, or ſuffer them to be endued, with ſuch credentials, as muſt ſupport ſuch a falſe claim. Their claim is not, therefore, a falſe one, if we admit their credentials; or, in other words, the truth of the principal facts mentioned in the ſcriptures proves the divine miſſion of Chriſt, the prophets, and apoſtles, *i. e.* the divine authority of the ſcriptures.

The ſame obſervations may be made upon the converſe of this propoſition, as upon thoſe of the two laſt.

And

And thus the genuineneſs of the ſcriptures, the truth of the principal facts contained in them, and their divine authority, appear to be ſo connected with each other, that any one being eſtabliſhed upon independent principles, the other two may be inferred from it. The firſt and ſecond of theſe points are, indeed, more evidently ſubſervient to the laſt, than the laſt is to them; for, if the laſt be allowed, it is at once all that the believer contends for; whereas ſome perſons appear to admit, or not to reject, the firſt, or even the ſecond, and yet are ranked under the title of believers. It is neceſſary to ſhew to ſuch perſons, that the firſt and ſecond infer each other mutually, and both of them the laſt; and it may be of ſome uſe to ſhew, that the laſt infers the two firſt in ſuch a way, as to caſt ſome light upon itſelf, without arguing in a circle; the divine authority of one book being made to infer the genuineneſs of another, or the facts contained in it, *i. e.* its divine authority alſo.

Here it may not be amiſs to ſay ſomething concerning the divine inſpiration of the ſcriptures. Now there are three different ſuppoſitions, which may be made concerning this point.

The firſt and loweſt is, that all the paſſages delivered by *Moſes* and the prophets, as coming from God, and by the evangeliſts, as the words of Chriſt, alſo the revelation given to St. *John* in a divine viſion, with all parallel portions of ſcripture, muſt be conſidered as divinely inſpired, and as having immediate divine authority; elſe we cannot allow even common authority to theſe books; but that the common hiſtory, the reaſonings of the apoſtles from the Old Teſtament, and perhaps ſome of their opinions, may be conſidered as coming merely from themſelves, and therefore, though highly to be regarded, are not of unqueſtionable authority. The arguments for this hypotheſis may be, that ſince the ſcriptures have ſuffered by tranſcribers, like other books, a perfect exactneſs in the original, as to minute particulars, (in which alone it has ſuffered, or could ſuffer, from tranſcribers), is needleſs; that *Moſes* and the prophets, the evangeliſts and apoſtles, had natural talents for writing hiſtory, applying the ſcriptures, reaſoning, and delivering their opinions; and that God works by natural means, where there are ſuch; that the apoſtles were ignorant of the true extent of *Chriſt*'s kingdom for a conſiderable time after his reſurrection, and perhaps miſtaken about his ſecond coming; that God might intend, that nothing in this world ſhould be perfect, our bleſſed Lord excepted; that ſome hiſtorical facts ſeem difficult to be reconciled to one another, and ſome applications of paſſages from the Old Teſtament by the writers of the New, with their reaſonings thereupon, inconcluſive and unſatisfactory; that the writers themſelves no where lay claim to infallibility, when ſpeaking from themſelves; and that *Hermas*, *Clemens Romanus*, and *Barnabas*, who were apoſtolical perſons, ſeem evidently to have reaſoned in an inconcluſive manner.

The ſecond hypotheſis is, that hiſtorical incidents of ſmall moment, with matters of a nature foreign to religion, may indeed not have divine authority; but that all the reſt of the ſcriptures, the reaſonings, the application of the prophecies, and even the doctrines

doctrines of inferior note, muſt be inſpired; elſe what can be meant by the gifts of the ſpirit, particularly that of prophecy, *i. e* of inſtructing others? How can *Chriſt*'s promiſe of the Comforter, who ſhould lead his diſciples into *all truth*, be fulfilled? Will not the very eſſentials of religion, the divine miſſion of *Chriſt*, providence, and a future ſtate, be weakened by thus ſuppoſing the ſacred writers to be miſtaken in religious points? And though the hiſtory and the reaſonings of the ſcriptures have the marks of being written in the ſame manner as other books, *i. e.* may ſeem not to be inſpired, yet a ſecret influence might conduct the writers in every thing of moment, even when they did not perceive it, or reflect upon it themſelves; it being evident from obvious reaſonings, as well as from the foregoing theory, that the natural workings of the mind are not to be diſtinguiſhed from thoſe, which a being that has a ſufficient power over our intellectual frame, might excite in us.

The third and laſt hypotheſis is, that the whole ſcriptures are inſpired, even the moſt minute hiſtorical paſſages, the ſalutations, incidental mention of common affairs, &c. The arguments in favour of this hypotheſis are, that many parts of ſcripture appear to have double, or perhaps manifold ſenſes; that not one jot or tittle of the law (*i. e.* of the whole ſcriptures of both the Old and New Teſtaments, in an enlarged way of interpretation, which, however, ſeems juſtifiable by parallel inſtances) ſhall periſh; that the Bible, *i. e.* the book of books, as we now have it, appears to have been remarkably diſtinguiſhed by Providence from all other writings, even of good *Jews* and Chriſtians, and to admit of a vindication in reſpect of ſmall difficulties, and ſmall ſeeming inconſiſtencies, as well as of great ones, every day more and more as we advance in knowledge; and that effects of the ſame kind with divine inſpiration, viz. the working of miracles, and the gift of prophecy, ſubſiſted during the times of the authors of the books of the Old and New Teſtaments, and even in all, or nearly all, of theſe writers; alſo that they extended, in ſome caſes, to very minute things.

I will not preſume to determine which of theſe three ſuppoſitions approaches neareſt to the truth. The following propoſitions will, I hope, eſtabliſh the firſt of them at leaſt, and prove the genuineneſs of the ſcriptures, the truth of the facts contained in them, and their divine authority, to ſuch a degree, as that we need not fear to make them the rule of our lives, and the ground of our future expectations; which is all that is abſolutely neceſſary for the proof of the chriſtian religion, and the ſatisfaction and comfort of religious perſons. I even believe, that the following evidences favour the ſecond hypotheſis ſtrongly, and exclude all errors and imperfections of note; nay, I am inclined to believe, that ſerious, inquiſitive men can ſcarce reſt there, but will be led by the ſucceſſive clearing of difficulties, and unfolding of the moſt wonderful truths, to believe the whole ſcriptures to be inſpired, and to abound with numberleſs uſes and applications, of which we yet know nothing. Let future ages determine. The evidently miraculous nature of one part, viz. the prophetical, diſpoſes the mind to believe the whole to be far above human invention, or even penetration, till ſuch time

as

as our underſtandings ſhall be farther opened by the events which are to precede the ſecond coming of *Chriſt*. In the mean while, let critics and learned men of all kinds have full liberty to examine the ſacred books; and let us be ſparing in our cenſures of each other. *Let us judge nothing before the time, until the Lord come; and then ſhall every man have praiſe of God.* Sobriety of mind, humility, and piety, are requiſite in the purſuit of knowledge of every kind, and much more in that of ſacred. I have here endeavoured to be impartial to each hypotheſis, and juſt to hint what I apprehend each party would or might ſay in defence of their own. However, *they are all brethren*, and ought not to *fall out by the way*.

PROP. CXIX.

The Manner in which the Books of the Old and New Teſtaments have been handed down from Age to Age, proves both their Genuineneſs, and the Truth of the principal Facts contained in them.

For, Firſt, It reſembles the manner in which all other genuine books and true hiſtories have been conveyed down to poſterity. As the writings of the *Greek* and *Roman* poets, orators, philoſophers and hiſtorians, were eſteemed by theſe nations to be tranſmitted to them by their forefathers in a continued ſucceſſion, from the times when the reſpective authors lived, ſo have the books of the Old Teſtament by the *Jewiſh* nation, and thoſe of the New by the *Chriſtians*; and it is an additional evidence in the laſt caſe, that the primitive chriſtians were not a diſtinct nation, but a great multitude of people diſperſed through all the nations of the *Roman* empire, and even extending itſelf beyond the bounds of that empire. As the *Greeks* and *Romans* always believed the principal facts of their hiſtorical books, ſo the *Jews* and *Chriſtians* did more, and never ſeem to have doubted of the truth of any part of theirs. In ſhort, whatever can be ſaid of the traditional authority due to the *Greek* and *Roman* writers, ſomething analogous to this, and for the moſt part of greater weight, may be urged for the *Jewiſh* and *Chriſtian*. Now, I ſuppoſe that all ſober-minded men admit the books uſually aſcribed to the *Greek* and *Roman* hiſtorians, philoſophers, &c. to be genuine, and the principal facts related or alluded to in them to be true, and that one chief evidence for this is the general traditionary one here recited. They ought therefore to pay the ſame regard to the books of the Old and New Teſtaments, ſince there are the ſame or greater reaſons for it.

Secondly, If we reconſider the circumſtances recited in the laſt paragraph, it will appear, that theſe traditionary evidences are ſufficient ones; and we ſhall have a real argument, as well as one *ad hominem*, for receiving books ſo handed down to us. For it is not to be conceived, that whole nations ſhould either be impoſed upon themſelves, or concur to deceive others, by forgeries of books or facts. Theſe books and

facts muſt therefore, in general, be genuine and true; and it is a ſtrong additional evidence of this, that all nations muſt be jealous of forgeries, for the ſame reaſons that we are.

Here it may be objected, that as we reject the prodigies related by the *Greek* and *Roman* writers, though we admit the common hiſtory, ſo we ought alſo to reject the ſcripture miracles. To this I anſwer,

Firſt, That the ſcripture hiſtory is ſupported by far ſtronger evidences than the *Greek* or *Roman*, as will appear in the following propoſitions.

Secondly, That many of the ſcripture miracles are related by eye-witneſſes, and were of a public nature, of long duration, attended by great and laſting effects, inſeparably connected with the common hiſtory, and evidently ſuitable to our notions of a wiſe and good Providence, which cannot be ſaid of thoſe related by the Pagan writers.

Thirdly, That the ſcripture miracles not attended by theſe cogent circumſtances are ſupported by their connection with ſuch as are; and that after we have admitted theſe, there remains no longer any preſumption againſt thoſe from their miraculous nature.

Fourthly, If there be any ſmall number found amongſt the Pagan miracles, atteſted by ſuch like evidences as the principal ones for the ſcripture miracles, I do not ſee how they can be rejected; but it will not follow, that the ſcripture miracles are falſe, becauſe ſome of the Pagan ones are true.

PROP. CXX.

The great Importance of the Hiſtories, Precepts, Promiſes, Threatenings, and Prophecies contained in the Scriptures, are Evidences both of their Genuineneſs, and of the Truth of the principal Facts mentioned in them.

This is one of the inſtances in which the evidences for the ſcriptures are ſuperior, beyond compariſon, to thoſe for any other other ancient books. Let us take a ſhort review of this importance in its ſeveral particulars.

The hiſtory of the creation, fall, deluge, longevity of the patriarchs, diſperſion of mankind, calling of *Abraham*, deſcent of *Jacob* with his family into *Egypt*, and the precepts of abſtaining from blood, and of circumciſion, were of ſo much concern, either to mankind in general, or to the *Iſraelites* in particular, and ſome of them of ſo extraordinary a nature, as that it could not be an indifferent matter to the people amongſt whom the account given of them in *Geneſis* was firſt publiſhed, whether they received them or not. Suppoſe this account to be firſt publiſhed amongſt the *Iſraelites* by *Moſes*, and alſo to be then confirmed by clear, univerſal, uninterrupted tradition (which is poſſible and probable, according to the hiſtory itſelf), and it will be eaſy to conceive, upon this true ſuppoſition, how this account ſhould be handed down from age to age amongſt the *Jews*, and received by them as indubitable. Suppoſe this account to be falſe, *i. e.* ſuppoſe that there were no ſuch evidences and veſtiges of theſe hiſtories

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and precepts, and it will be difficult to conceive how this could have happened, let the time of publication be as it will. If early, the people would reject the account at once for want of a clear tradition, which the account itſelf would give them reaſon to expect. If late, it would be natural to inquire how the author came to be informed of things never known before to others.

If it be ſaid, that he delivered them as communicated to him by revelation (which yet cannot well be ſaid on account of the many references in *Geneſis* to the remaining veſtiges of the things related), theſe ſurprizing, intereſting particulars would at leaſt be an embarraſſment upon his fictitious credentials, and engage his cotemporaries to look narrowly into them.

If it be ſaid, that there were many coſmogonies and theogonies current amongſt the Pagans, which yet are evidently fictions; I anſwer, that theſe were, in general, regarded only as amuſing fictions; however, that they had ſome truths in them, either expreſſed in plain words, or concealed in figures; and that their agreement with the book of *Geneſis*, as far as they are conſiſtent with one another, or have any appearance of truth, is a remarkable evidence in favour of this book. It is endleſs to make all the poſſible ſuppoſitions and objections of this kind; but it appears to me, that the more are made, the more will the truth and genuineneſs of the ſcriptures be eſtabliſhed thereby.

It ought to be added, in relation to the precepts of abſtaining from blood, and circumciſion, before-mentioned, that if the firſt was common to mankind, or was known to have been ſo, the laſt peculiar to the deſcendents of *Abraham*, at the time of the publication of the book of *Geneſis*, this confirms it; if otherwiſe, would contribute to make it rejected. If neither the practices themſelves, nor any veſtiges of them, ſubſiſted at all, the book muſt be rejected. The difficulty of deducing theſe practices from the principles of human nature ought to be conſidered here; as it tends to prove their divine original, agreeably to the accounts given of them in *Geneſis*.

Let us next come to the law of *Moſes*. This was extremely burdenſome, expenſive, ſevere, particularly upon the crime of idolatry, to which all mankind were then extravagantly prone, and abſurd, according to the common judgment of mankind, in the inſtances of forbidding to provide themſelves with horſes for war, and commanding all the males of the whole nation to appear at *Jeruſalem* three times in a year. At the ſame time, it claims a divine authority every where, and appeals to facts of the moſt notorious kinds, and to cuſtoms and ceremonies of the moſt peculiar nature, as the memorials of theſe facts. We cannot conceive, then, that any nation, with ſuch motives to reject, and ſuch opportunities of detecting, the forgery of the books of *Exodus*, *Leviticus*, *Numbers*, and *Deuteronomy*, ſhould yet receive them, and ſubmit to this heavy yoke. That they ſhould often throw it off in part, and for a time, and rebel againſt the divine authority of their law, though ſufficiently evidenced, is eaſily to be ac-

counted for from what we ſee and feel in ourſelves and others every day; but that they ſhould ever return and repent, ever ſubmit to it, unleſs it had divine authority, is utterly incredible. It was not a matter of ſuch ſmall importance, as that they could content themſelves with a ſuperficial examination, with a leſs examination than would be ſufficient to detect ſo notorious a forgery; and this holds, at whatever time we ſuppoſe theſe books to be publiſhed.

That the *Jews* did thus ſubmit to the law of *Moſes*, is evident from the books of the Old and New Teſtaments, if we allow them the leaſt truth and genuineneſs, or even from profane writers; nay, I may ſay, from the preſent obſervance of it by the *Jews* ſcattered through all the kingdoms of the world.

If it be ſaid, that other nations have aſcribed divine authority to their lawgivers, and ſubmitted to very ſevere laws; I anſwer, Firſt, That the pretences of lawgivers amongſt the Pagans to inſpiration, and the ſubmiſſion of the people to them, may be accounted for in the degree in which they are found, from the then circumſtances of things, without having recourſe to real inſpiration; and particularly, that if we admit the patriarchal revelations related and intimated by *Moſes*, and his own divine legation, it will appear, that the heathen lawgivers copied after theſe; which is a ſtrong argument for admitting them. Secondly, That there is no inſtance amongſt the Pagans, of a body of laws being produced at once, and remaining without addition afterwards; but that they were compiled by degrees, according to the exigencies of the ſtate, the prevalence of a particular faction, or the authority of ſome particular perſons, who were all ſtyled lawgivers, as *Draco* and *Solon* at *Athens:* that they were made, in general, not to curb, but humour, the genius of the people; and were afterwards repealed and altered from the ſame cauſes: whereas the body politic of the *Iſraelites* took upon itſelf a complete form at once, and has preſerved this form in great meaſure to the preſent time, and that under the higheſt external diſadvantages; which is an inſtance quite without parallel, and ſhews the great opinion which they had of their law, *i. e.* its great importance to them.

If it be ſaid, that the laws of the *Iſraelites* were not perhaps impoſed at once, but grew up by degrees, as in other nations, this will make the difficulty of receiving the books of *Exodus*, *Leviticus*, *Numbers*, and *Deuteronomy*, in which the contrary, with all the particular circumſtances, is aſſerted, greater than ever. In ſhort, of all the fictions or forgeries that can happen amongſt any people, the moſt improbable is that of their body of civil laws; and it ſeems to be utterly impoſſible in the caſe of the law of *Moſes*.

The next part of the ſcriptures, whoſe importance we are to conſider, is the hiſtory contained in the books of *Joſhua*, *Judges*, *Ruth*, *Samuel*, *Kings*, *Chronicles*, *Ezra*, and *Nehemiah*, and extending from the death of *Moſes* to the re-eſtabliſhment of the *Jews* after the *Babyloniſh* captivity, by *Ezra* and *Nehemiah*. Now, in this hiſtory are the following important facts, moſt of which muſt be ſuppoſed to leave ſuch veſtiges of themſelves, either external viſible ones, or internal in the minds and memories of the

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people, as would verify them, if true; make them be rejected, if falſe. The conqueſt of the land of *Canaan*, the diviſion of it, and the appointment of cities for the prieſts and Levites by *Joſhua*; the frequent ſlaveries of the *Iſraelites* to the neighbouring kings, and their deliverance by the Judges; the erection of a kingdom by *Samuel*; the tranſlation of this kingdom from *Saul*'s family to *David*, with his conqueſts; the glory of *Solomon*'s kingdom; the building of the temple; the diviſion of the kingdom; the idolatrous worſhip ſet up at *Dan* and *Bethel*; the captivity of the *Iſraelites* by the kings of *Aſſyria*; the captivity of the *Jews* by *Nebuchadnezzar*; the deſtruction of their temple; their return under *Cyrus*, rebuilding the temple under *Darius Hyſtaſpis*, and re-eſtabliſhment under *Artaxerxes Longimanus*, by *Ezra* and *Nehemiah*; theſe events are ſome of them the moſt glorious, ſome of them the moſt ſhameful that can well happen to any people. How can we reconcile forgeries of ſuch oppoſite kinds, and eſpecially as they are interwoven together? But, indeed, the facts are of ſuch conſequence, notoriety, and permanency in their effects, that neither could any particular perſons amongſt the *Iſraelites* firſt project the deſign of feigning them, nor their own people concur with ſuch a deſign, nor the neighbouring nations permit the fiction to paſs. Nothing could make a jealous multitude amongſt the *Iſraelites* or neighbouring nations acquieſce, but the invincible evidence of the facts here alleged. And the ſame obſervations hold of numberleſs other facts of leſſer note, which it would be tedious to recount; and of miraculous facts as much, or rather more than others. Beſides which, it is to be noted, that all theſe have ſuch various neceſſary connections with each other, that they cannot be ſeparated, as has been already remarked.

And all this will, I preſume, be readily acknowledged, upon ſuppoſition that the ſeveral books were publiſhed in or near the times of the facts therein recorded. But, ſay the objectors, this will not hold in ſo ſtrong a manner, if the books be publiſhed after theſe times. Let us take an extreme caſe then, and ſuppoſe all theſe hiſtorical books forged by *Ezra*. But this is evidently impoſſible. Things of ſo important and notorious a kind, ſo glorious and ſo ſhameful to the people, for whoſe ſake they were forged, would have been rejected with the utmoſt indignation, unleſs there were the ſtrongeſt and moſt genuine footſteps of theſe things already amongſt the people. They were therefore in part true. But many additions were made by *Ezra*, ſay the objectors. I anſwer, if theſe were of importance, the difficulty returns. If not, then all the important facts are true. Beſides, what motive could any one have for making additions, of no importance? Again, if there were any ancient writings extant, *Ezra* muſt either copy after them, which deſtroys the preſent ſuppoſition; or differ from and oppoſe them, which would betray him. If there were no ſuch ancient writings, the people could not but inquire in matters of importance, for what reaſons *Ezra* was ſo particular in things of which there was neither any memory, nor account in writing. If it be ſaid, that the people did not regard what *Ezra* had thus forged, but let it paſs uncontradicted; this is again to make the things of ſmall or no importance.

ance. Beſides, why ſhould *Ezra* write, if no one would read or regard? Farther, *Ezra* muſt, like all other men, have friends, enemies and rivals; and ſome or all of theſe would have been a check upon him, and a ſecurity againſt him in matters of importance.

If, inſtead of ſuppoſing *Ezra* to have forged all theſe books at once, we ſuppoſe them forged ſucceſſively, one, two, or three centuries after the facts related; we ſhall, from this intermediate ſuppoſition, have (beſides the difficulty of accounting for ſuch a regular ſucceſſion of impoſtures in matters ſo important) a mixture of the difficulties recited in the two preceding paragraphs, the ſum total of which will be the ſame, or nearly the ſame, as in either of thoſe caſes. And, upon the whole, the forgery of the annals of the *Iſraelites* appears to be impoſſible, as well as that of the body of their civil laws.

If it be ſaid, that the hiſtories and annals of other nations have many fictions and falſehoods in them; I anſwer, that the ſuperior importance of the events which happened to the *Jewiſh* nation, and the miraculous nature of many of them, occaſioned their being recorded at the then preſent times, in the way of ſimple narration, the command of God alſo concurring, as it ſeems; and that thus all addition, variety, and embelliſhment, was prevented: whereas the hiſtories of the originals of other nations were not committed to writing till long after the events, after they had been corrupted and obſcured by numberleſs fables and fictions, as is well known. There are many other circumſtances peculiar to the *Jewiſh* hiſtory, which eſtabliſh its truth even in the minuteſt things, as I ſhall ſhew in the following propoſitions; and I hope the reader will ſee, in the progreſs of the argument, that the ſame method of reaſoning which proves the *Jewiſh* hiſtory to be rigorouſly exact, proves alſo, that the hiſtories of other nations may be expected to be partly true, and partly falſe, as they are agreed to be by all learned and ſober-minded men.

I paſs over the books of *Eſther*, *Job*, the *Pſalms*, *Proverbs*, *Eccleſiaſtes*, and *Canticles*, as not having much relation to this propoſition; and proceed to the conſideration of the Prophecies.

Theſe contain the moſt important precepts, promiſes, threatenings, and predictions, *i. e.* prophecies peculiarly ſo called, beſides the indirect and incidental mention of the great events recorded in the hiſtorical books. And as they are full of the ſevereſt reproofs and denunciations againſt all ranks, king, governors and great men ſubordinate to him, prieſts, prophets, and people, one cannot expect, that they ſhould be favourably received by any, but thoſe of the beſt moral characters; and theſe muſt be the firſt to detect and expoſe a forgery, if there was any. So that the prophecies, if they were forgeries, could not be able to ſtand ſo rigorous an examination as the importance of the caſe would prompt all ranks to. And here all the arguments before uſed to ſhew, that the hiſtorical books could neither be forged at the time of the facts, nor ſo late as *Ezra*'s time, nor in any intermediate one, are applicable with the ſame

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or even greater force. Beſides which, it is to be obſerved of the predictions in particular, that, if they were publiſhed before the events, they could not be forgeries; if afterwards, there would not be wanting amongſt the *Jews* many perſons of the ſame diſpoſition with *Porphyry*, and the preſent objectors to the genuineneſs of the prophecies, and the truth of the facts related or implied in them, who upon that ſuppoſition would have met with ſucceſs, as *Porphyry*, and the ancient objectors would have done long ago, had their objections been ſolid. Infidelity is the natural and neceſſary product of human wickedneſs and weakneſs; we ſee it, in all other things, as well as in religion, whenſoever the intereſts and paſſions of men are oppoſite to truth; and the preſent objectors to the truth of revealed religion may be aſſured, that the ancient ones, the murmuring *Iſraelites* in the wilderneſs, the rebellious *Jews* before Chriſt, and both *Jews* and *Gentiles* ſince Chriſt, have done juſtice to their cauſe.

We come, in the laſt place, to conſider the importance of the books of the New Teſtament. Whoever then received theſe in ancient times as genuine and true, muſt not only forſake all ſinful pleaſures, but expoſe himſelf to various hardſhips and dangers, and even to death itſelf. They had indeed a future glory promiſed to them, with which the ſufferings of the preſent time were not worthy to be compared. But then this glory, being future, muſt be ſupported with the moſt inconteſtable evidences; elſe it could have no power againſt the oppoſite motives; and both together muſt ſo rouſe the mind, as to make men exert themſelves to the uttermoſt, till they had received full ſatisfaction. Beſides which, it is to be obſerved, that even joy, and the greatneſs of an expectation, incline men to diſbelieve, and to examine with a ſcrupulous exactneſs, as well as fear and diſlike.

As to thoſe who did not receive the doctrines of the New Teſtament, and the facts there related and implied, they would have ſufficient motives to detect the forgery or falſehood, had there been any ſuch. They were all condemned for their unbelief; many for their groſs vices; the *Jew* for his darling partiality to his own nation, and ceremonial law; and the *Gentile* for his idolatry and polytheiſm; and the moſt dreadful puniſhments threatened to all in a future ſtate. Now theſe were important charges, and alarming conſiderations, which, if they did not put men upon a fair examination, would, at leaſt, make them deſirous to find fault, to detect and expoſe, and, if they had diſcovered any fraud, to publiſh it with the utmoſt triumph. The books of the New Teſtament could not but be of ſo much importance to the unbelievers of the primitive times, as to excite them to vigilance and earneſtneſs, in endeavouring to diſcredit and deſtroy them. All which is abundantly confirmed by the hiſtory of thoſe times. And indeed caſes of the ſame kind, though not of the ſame degree, occur now to daily obſervation, which the reader will do well to call to mind. Thus it comes to paſs, on one hand, that frauds and impoſtures are cruſhed in the birth; and, on the other, that wicked men labour againſt the truth in the moſt unreaſonable and inconſiſtent ways, and are led on from one degree of obſtinacy, prevarication, and infatuation, to another, without limits.

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It may be added here, that the perſons reproved and condemned in the Goſpels, in the *Acts* of the Apoſtles, by St. *Paul* in his Epiſtles, by St. *Peter* in his Second Epiſtle, by St. *John* and St. *Jude* in their Epiſtles, and by St. *John* in the *Revelation*, viz. the five churches, and the *Nicolaitans*, could not but endeavour to vindicate themſelves. The books were all of a public nature, and theſe reproofs particularly ſo, as being intended to guard others.

I have now gone through the ſeveral parts of the ſcripture, and ſhewn briefly how the importance of each would be a ſecurity againſt forgery and fiction in that part. I will now add ſome general evidences to the ſame purpoſe.

Firſt, then, It is certain, that both *Jews* and *Chriſtians* have undergone the ſevereſt perſecutions and ſufferings on account of their ſacred books, and yet never could be prevailed with to deliver them up: which ſhews that they thought them of the higheſt importance, moſt genuine and true.

Secondly, The preſervation of the law of *Moſes*, which is probably the firſt book that was ever written in any language, while ſo many others more modern have been loſt, ſhews the great regard paid to it. The ſame holds in a leſs degree of moſt of the other books of the Old Teſtament, ſince moſt of them are ancienter than the oldeſt *Greek* hiſtorians. And as the records of all the neighbouring nations are loſt; we muſt ſuppoſe thoſe of the *Jews* to have been preſerved, from their importance, or ſome other ſuch cauſe, as may be an equal evidence of their genuineneſs and truth.

Thirdly, The great importance of all the ſacred books appears from the many early tranſlations and paraphraſes of them. The ſame tranſlations and paraphraſes muſt be an effectual means of ſecuring their integrity and purity, if we could ſuppoſe any deſign to corrupt them.

Fourthly, The heſitation and difficulty with which a few books of the New Teſtament were received into the canon, ſhew the great care and concern of the primitive chriſtians about their canon. *i. e.* the high importance of the books received into it; and are therefore a ſtrong evidence, firſt, for the genuineneſs and truth of the books which were received without heſitation; and then for theſe others, ſince they were received univerſally at laſt.

Fifthly, The great religious hatred and animoſity which ſubſiſted between the *Jews* and *Samaritans*, and between ſeveral of the ancient ſects amongſt the chriſtians, ſhew of what importance they all thought their ſacred books; and would make them watch over one another with a jealous eye.

PROP. CXXI.

The Language, Style, and Manner of Writing uſed in the Books of the Old and New Teſtaments, are Arguments of their Genuineneſs.

HERE I obſerve, Firſt, That the *Hebrew* language, in which the Old Teſtament was written, being the language of an ancient people, and one that had little intercourſe with their neighbours, and whoſe neighbours alſo ſpake a language that had great affinity with their own, would not change ſo faſt as modern languages have done, ſince nations have been variouſly mixed with one another, and trade, arts, and ſciences, greatly extended. Yet ſome changes there muſt be, in paſſing from the time of *Moſes* to that of *Malachi*. Now, I apprehend, that the Biblical *Hebrew* correſponds to this criterion with ſo much exactneſs, that a conſiderable argument may be deduced thence in favour of the genuineneſs of the books of the Old Teſtament.

Secondly, The books of the Old Teſtament have too conſiderable a diverſity of ſtyle to be the work either of one *Jew* (for a *Jew* he muſt be on account of the language), or of any ſet of cotemporary *Jews*. If therefore they be all forgeries, there muſt be a ſucceſſion of impoſtors in different ages, who have concurred to impoſe upon poſterity, which is inconceivable. To ſuppoſe part forged, and part genuine, is very harſh, neither would this ſuppoſition, if admitted, be ſatisfactory.

Thirdly, The *Hebrew* language ceaſed to be ſpoken, as a living language, ſoon after the time of the *Babyloniſh* captivity: but it would be difficult or impoſſible to forge any thing in it, after it was become a dead language. For there was no grammar made for the *Hebrew* till many ages after; and, as it is difficult to write in a dead language with exactneſs, even by the help of a grammar, ſo it ſeems impoſſible without it. All the books of the Old Teſtament muſt therefore be, nearly, as ancient as the *Babyloniſh* captivity; and, ſince they could not all be written in the ſame age, ſome muſt be conſiderably more ancient; which would bring us again to a ſucceſſion of conſpiring impoſtors.

Fourthly, This laſt remark may perhaps afford a new argument for the genuineneſs of the book of *Daniel*, if any were wanting. But indeed the Septuagint tranſlation ſhews both this, and all the other books of the Old Teſtament to have been conſidered as ancient books, ſoon after the times of *Antiochus Epiphanes*, at leaſt.

Fifthly, There is a ſimplicity of ſtyle, and an unaffected manner of writing, in all the books of the Old Teſtament; which is a very ſtrong evidence of their genuineneſs, even excluſively of the ſuitableneſs of this circumſtance to the times of the ſuppoſed authors.

Sixthly, The ſtyle of the New Teſtament is alſo ſimple and unaffected, and perfectly ſuited to the time, places, and perſons. Let it be obſerved farther, that the uſe of words and phraſes is ſuch, alſo the ideas, and method of reaſoning, as that the books

of the New Teſtament could be written by none but perſons originally *Jews*; which would bring the inquiry into a little narrower compaſs, if there was any occaſion for this.

One may alſo obſerve, that the narrations and precepts of both Old and New Teſtament are delivered without heſitation; the writers teach as having authority; which circumſtance is peculiar to thoſe, who have both a clear knowledge of what they deliver, and a perfect integrity of heart.

PROP. CXXII.

The very great Number of particular Circumſtances of Time, Place, Perſons, &c. mentioned in the Scriptures, are arguments both of their Genuineneſs and Truth.

THAT the reader may underſtand what I mean by theſe particular circumſtances, I will recite ſome of the principal heads, under which they may be claſſed.

There are then mentioned in the book of *Geneſis*, the rivers of paradiſe, the generations, of the antediluvian patriarchs, the deluge with its circumſtances, the place where the ark reſted, the building of the tower of *Babel*, the confuſion of tongues, the diſperſion of mankind, or the diviſion of the earth amongſt the poſterity of *Shem*, *Ham*, and *Japhet*, the generations of the poſtdiluvian patriarchs, with the gradual ſhortening of human life after the flood, the ſojournings of *Abraham*, *Iſaac*, and *Jacob*, with many particulars of the ſtate of *Canaan*, and the neighbouring countries, in their times, the deſtruction of *Sodom* and *Gomorrah*, the ſtate of the land of *Edom*, both before and after *Eſau*'s time, and the deſcent of *Jacob* into *Egypt*, with the ſtate of *Egypt* before *Moſes*'s time.

In the book of *Exodus* are the plagues of *Egypt*, the inſtitution of the paſſover, the paſſage through the *Red Sea*, with the deſtruction of *Pharaoh* and his hoſt there, the miracle of manna, the victory over the *Amalekites*, the ſolemn delivery of the law from mount *Sinai*, many particular laws both moral and ceremonial, the worſhip of the golden calf, and a very minute deſcription of the tabernacle, prieſts' garments, ark, &c.

In *Leviticus* we have a collection of ceremonial laws, with all their particularites, and an account of the deaths of *Nadab* and *Abihu*.

The book of *Numbers* contains the firſt and ſecond numberings of the ſeveral tribes with their genealogies, the peculiar offices of the three ſeveral families of the *Levites*, many ceremonial laws, the journeyings and encampments of the people in the wilderneſs during forty years, with the relation of ſome remarkable events which happened in this period; as the ſearching of the land, the rebellion of *Korah*, the victories over *Arad*, *Sihon*, and *Og*, with the diviſion of the kingdoms of the two laſt among the *Gadites*, *Reubenites*, and *Manaſſites*, the hiſtory of *Balak* and *Balaam*, and the victory over the *Midianites*, all deſcribed with the ſeveral particularities of time, place, and perſons.

The

The book of *Deuteronomy* contains a recapitulation of many things contained in the three laſt books, with a ſecond delivery of the law, chiefly the moral one, by *Moſes* upon the borders of *Canaan*, juſt before his death, with an account of this.

In the book of *Joſhua*, we have the paſſage over *Jordan*, the conqueſt of the land of *Canaan* in detail, and the diviſion of it among the tribes, including a minute geographical deſcription.

The book of *Judges* recites a great variety of public tranſactions, with the private origin of ſome. In all, the names of times, places, and perſons, both among the *Iſraelites*, and the neighbouring nations, are noted with particularity and ſimplicity.

In the book of *Ruth* is a very particular account of the genealogy of *David*, with ſeveral incidental circumſtances.

The books of *Samuel*, *Kings*, *Chronicles*, *Ezra*, and *Nehemiah*, contain the tranſactions of the kings before the captivity, and governors afterwards, all delivered in the ſame circumſtantial manner. And here the particular account of the regulations ſacred and civil eſtabliſhed by *David*, and of the building of the temple by *Solomon*, the genealogies given in the beginning of the firſt book of *Chronicles*, and the liſts of the perſons who returned, ſealed, &c. after the captivity, in the books of *Ezra* and *Nehemiah*, deſerve eſpecial notice, in the light in which we are now conſidering things.

The book of *Eſther* contains a like account of a very remarkable event, with the inſtitution of a feſtival in memory of it.

The book of *Pſalms* mentions many hiſtorical facts in an incidental way; and this, with the books of *Job*, *Proverbs*, *Eccleſiaſtes*, and *Canticles*, allude to the manners and cuſtoms of ancient times in various ways.

In the *Prophecies* there are ſome hiſtorical relations; and in the other parts the indirect mention of facts, times, places, and perſons, is interwoven with the predictions in the moſt copious and circumſtantial manner.

If we come to the New Teſtament, the ſame obſervations preſent themſelves at firſt view. We have the names of friends and enemies, *Jews*, *Greeks*, and *Romans*, obſcure and illuſtrious, the times, places, and circumſtances of facts, ſpecified directly, and alluded to indirectly, with various references to the cuſtoms and manners of thoſe times.

Now here I obſerve, Firſt, That, in fact, we do not ever find, that forged or falſe accounts of things ſuperabound thus in particularities. There is always ſome truth where there are conſiderable particularities related, and they always ſeem to bear ſome proportion to one another. Thus there is a great want of the particulars of time, place, and perſons, in *Manetho*'s account of the *Egyptian* Dynaſties, *Cteſias*'s of the *Aſſyrian* kings, and thoſe which the technical chronologers have given of the ancient kingdoms of *Greece*; and, agreeably thereto, theſe accounts have much fiction and falſehood, with ſome truth: whereas *Thucydides*'s hiſtory of the *Peloponneſian* war, and *Cæſar*'s of the war in *Gaul*, in both which the particulars of time, place, and perſons, are mentioned, are univerſally eſteemed true to a great degree of exactneſs.

Secondly, A forger, or a relater of falſehoods, would be careful not to mention ſo great a number of particulars, ſince this would be to put into his reader's hands criterions whereby to detect him. Thus we may ſee one reaſon of the fact mentioned in the laſt paragraph, and which in confirming that fact confirms the propoſition here to be proved.

Thirdly, A forger, or a relater of falſehoods, could ſcarce furniſh out ſuch liſts of particulars. It is eaſy to conceive how faithful records kept from time to time by perſons concerned in the tranſactions ſhould contain ſuch liſts; nay, it is natural to expect them in this caſe, from that local memory which takes ſtrong poſſeſſion of the fancy in thoſe who have been preſent at tranſactions; but it would be a work of the higheſt invention, and greateſt ſtretch of genius, to raiſe from nothing ſuch numberleſs particularities, as are almoſt every where to be met with in the ſcriptures. The account given of memory, imagination, and invention, in the foregoing part of theſe obſervations, ſets this matter in a ſtrong light.

There is a circumſtance relating to the goſpels, which deſerves particular notice in this place. St. *Matthew* and St. *John* were apoſtles; and therefore, ſince they accompanied Chriſt, muſt have this local memory of his journeyings and miracles. St. *Mark* was a *Jew* of *Judæa*, and a friend of St. *Peter*'s, and therefore may either have had this local memory himſelf, or have written chiefly from St. *Peter*, who had. But St. *Luke*, being a proſelyte of *Antioch*, not converted perhaps till ſeveral years after Chriſt's reſurrection, and receiving his accounts from different eye-witneſſes, as he ſays himſelf, could have no regard to that order of time, which a local memory would ſuggeſt. Let us ſee how the goſpels anſwer to theſe poſitions. St. *Matthew*'s then appears to be in exact order of time, and to be a regulator to St. *Mark*'s, and St. *Luke*'s, ſhewing St. *Mark*'s to be nearly ſo, but St. *Luke*'s to have little or no regard to the order of time in his account of Chriſt's miniſtry. St. *John*'s goſpel is, like St. *Matthew*'s, in order of time; but as he wrote after all the reſt, and with a view only of recording ſome remarkable particulars, ſuch as Chriſt's actions before he left *Judæa* to go to preach in *Galilee*, his diſputes with the *Jews* of *Jeruſalem*, and his diſcourſes to the apoſtles at his laſt ſupper, there was leſs opportunity for his local memory to ſhew itſelf. However, his recording what paſt before Chriſt's going into *Galilee* might be in part from this cauſe, as St. *Matthew*'s omiſſion of it was probably from his want of this local memory. For it appears, that St. *Matthew* reſided in *Galilee*; and that he was not converted till ſome time after Chriſt's coming thither to preach. Now this ſuitableneſs of the four goſpels to their reputed authors, in a circumſtance of ſo ſubtle and recluſe a nature, is quite inconſiſtent with the ſuppoſition of fiction or forgery. This remark is chiefly taken from Sir *Iſaac Newton*'s chapter concerning the times of the birth and paſſion of Chriſt, in his comment on *Daniel*.

Fourthly, If we could ſuppoſe the perſons who forged the books of the Old and New Teſtaments, to have furniſhed their readers with the great variety of particulars above

above-mentioned, notwithſtanding the two reaſons here alleged againſt it, we cannot, however, conceive, but that the perſons of thoſe times when the books were publiſhed, muſt by the help of theſe criterions have detected and expoſed the forgeries or falſehoods. For theſe criterions are ſo atteſted by allowed facts, as at this time, and in this remote corner of the world, to eſtabliſh the truth and genuineneſs of the ſcriptures, as may appear even from this chapter, and much more from the writings of commentators, ſacred critics, and ſuch other learned men, as have given the hiſtorical evidences for revealed religion in detail; and by parity of reaſon they would ſuffice even now to detect the fraud, were there any: whence we may conclude, *a fortiori*, that they muſt have enabled the perſons who were upon the ſpot, when the books were publiſhed, to do this; and the importance of many of theſe particulars conſidered under *Prop.* 120. would furniſh them with abundant motives for this purpoſe. And upon the whole I infer, that the very great number of particulars of time, place, perſons, &c. mentioned in the ſcriptures, is a proof of their genuineneſs and truth, even previouſly to the conſideration of the agreement of theſe particulars with hiſtory, natural and civil, and with one another, of which I now proceed to treat.

PROP. CXXIII.

The Agreement of the Scriptures with Hiſtory, natural and civil, is a Proof of their Genuineneſs and Truth.

THUS the hiſtory of the fall agrees in an eminent manner both with the obvious facts of labour, ſorrow, pain, and death, with what we ſee and feel every day, and with all our philoſophical inquiries into the frame of the human mind, the nature of ſocial life, and the origin of evil, as may appear from theſe papers amongſt other writings of the ſame kind. The ſeveral powers of the little world within a man's own breaſt are at variance with one another, as well as thoſe of the great world; we are utterly unable to give a complete ſolution of the origin of the evils which flow from theſe diſcords, and from the jarring of the elements of the natural world; and yet there are comfortable hopes, that all evil will be overpowered and annihilated at laſt, and that it has an entire ſubſerviency to good really and ultimately, *i. e.* though the *ſerpent bruiſe our heel*, yet we ſhall *bruiſe its head.*

It cannot be denied indeed, but that both the hiſtory of the creation, and that of the fall, are attended with great difficulties. But then they are not of ſuch a kind as intimate them to be a fiction contrived by *Moſes*. It is probable, that he ſet down the traditional account, ſuch as he received it from his anceſtors; and that this account contains the literal truth in ſhort, though ſo concealed in certain particulars through its ſhortneſs, and ſome figurative expreſſions made uſe of, that we cannot yet, perhaps never ſhall, interpret it ſatisfactorily. However, Mr. *Whiſton*'s conjectures concerning the

the ſix days creation ſeem to deſerve the attention of future inquirers; and there is great plauſibility in ſuppoſing with him, that the firſt chapter of *Geneſis* contains a narrative of the ſucceſſion of viſible appearances.

One may ſuppoſe alſo, that there is a typical and prophetic ſenſe to be diſcovered hereafter, relative perhaps to the ſix millenniums, which are to precede a ſeventh ſabbatical one; and that the words are more accommodated to this ſenſe than to the literal one, in ſome places, which I think holds in many of the prophecies that have double ſenſes. However, there is no appearance of any motive to a fraud, either in the hiſtory of the creation or fall, nor any mark of one. And the ſame ſhortneſs and obſcurity which prevents our being able to explain, ſeems alſo to preclude objections. If we ſuppoſe theſe hiſtories to have been delivered by traditional explanations that accompanied hieroglyphical delineations, this would perhaps account for ſome of the difficulties; and help us to conceive how the hiſtories may be exact, and even decypherable hereafter. The appellations of the tree of life, of the tree of the knowledge of good and evil, and of the ſerpent, ſeem to favour this ſuppoſition. At the utmoſt, one can make no objections againſt theſe hiſtories, but what are conſiſtent with the firſt and loweſt of the ſuppoſitions above-mentioned concerning divine inſpiration.

Natural hiſtory bears a ſtrong teſtimony to *Moſes*'s account of the deluge; and ſhews that it muſt have been univerſal, or nearly ſo, however difficult it may be to us, either to find ſources for ſo great a body of waters, or methods of removing them. That a comet had ſome ſhare in this event ſeems highly probable from what Dr. *Halley* and Mr. *Whiſton* have obſerved of this matter: I gueſs alſo partly from the ſuppoſition, that ſome part of the tail of a comet was then attracted by the earth, and depoſited there, partly from the great ſhortening of human life after the flood, and partly from the fermenting and inebriating quality of vegetable juices, which ſeems firſt to have appeared immediately after the flood, that a great change was made at the time of the flood in the conſtitution of natural bodies, and particularly in that of water. And it ſeems not improbable to me, that an enlargement of the reſpective ſpheres of attraction and repulſion, and of the force of theſe, in the ſmall particles of water, might greatly contribute to account for ſome circumſtances of the deluge, mentioned by *Moſes*. For, by the increaſe of the ſphere, and force of attraction, the waters ſuſpended in the air or firmament in the form of a miſt or vapour before the flood, *ſee Gen.* ii. 5, 6. might be collected into large drops, and fall upon the earth. And their fall might give occaſion to rarer watery vapours, floating at great diſtances from the earth in the planetary and intermundane ſpaces, to approach it, be in like manner condenſed into large drops, and fall upon it. This might continue for forty days, the force with which the rare vapours approached the earth decreaſing all the latter part of that time, and being at the end of it overpowered by the contrary force of the vapours raiſed from the earth, now covered with water, by the action of the ſun, and of the wind, mentioned *Gen.* viii. 1. For it is evident, that the wind has great power in raiſing watery particles, *i. e.* putting them into

into a ſtate of repulſion; and the wind here conſidered would be far ſtronger than that which now prevails in the *Pacific Ocean*, ſince the whole globe was one great ocean during the height of the deluge. The ceſſation of the rain, and the increaſe of the ſphere, and force of repulſion, above ſuppoſed, would in like manner favour the aſcent of vapours from this great ocean. And thus the precedent vapours might be driven by ſubſequent ones into the planetary and intermundane ſpaces, beyond the earth's attraction. However, ſince the quantity of the ſubſequent vapours muſt perpetually decreaſe by the decreaſe of the ſurface of the ocean, a limit would be ſet to the aſcent of the vapours, as was before to their deſcent.

According to this hypotheſis, that ſtate of our waters, which was ſuperinduced at the deluge, may both be the cauſe of the rainbow, *i. e.* of drops of a ſize proper for this purpoſe, and exempt us from the danger of a ſecond deluge. For a freſh intermixture of like cometical particles could not now ſuperinduce a new ſtate. The rainbow may therefore be a natural ſign and evidence, *that the waters ſhall no more become a flood to deſtroy the earth.*

As to the breaking up the fountains of the great deep, mentioned *Gen.* vii. 11. though no ſatisfactory account has been given of this hitherto, yet ſurely there is great plauſibility in ſuppoſing, that the increaſed attraction of a comet, conſequent upon its near approach to the earth, might have ſome ſuch effect, and at the ſame time contribute to produce ſuch changes in the earth, as a mere deluge could not.

Civil hiſtory affords likewiſe many evidences, which ſupport the *Moſaic* account of the deluge. Thus, Firſt, We find from Pagan authors, that the tradition of a flood was general, or even univerſal. Secondly, The paucity of mankind, and the vaſt tracts of uninhabited land, which are mentioned in the accounts of the firſt ages, ſhew that mankind are lately ſprung from a ſmall ſtock, and even ſuit the time aſſigned by *Moſes* for the flood. Thirdly, The great number of ſmall kingdoms, and petty ſtates in the firſt ages, and the late riſe of the great empires of *Egypt*, *Aſſyria*, *Babylon*, &c. concur to the ſame purpoſe. Fourthly, The invention and progreſs of arts and ſciences concur likewiſe. And this laſt favours the *Moſaic* hiſtory of the antediluvians. For as he mentions little of their arts, ſo it appears from the late invention of them after the flood, that thoſe who were preſerved from it were poſſeſſed of few.

It has been objected to the *Moſaic* hiſtory of the deluge, that the ark could not contain all the animals which are now found upon the earth, with the proper proviſions for them during the time of the deluge. But this, upon an accurate computation, has been proved to be otherwiſe; ſo that what was thought an objection is even ſome evidence. For it is extremely improbable, that a perſon who had feigned the particular of the ark, ſhould have come ſo near the proper dimenſions. It is to be conſidered here, that the ſeveral ſpecieſes of both plants and brute animals, which differ from each other by ſmall degrees, ſeem to be multiplied every day by the varieties of climates, culture, diet, mixture, &c. alſo, that if we ſuppoſe an univerſal deluge, the ark, with the

the entrance of the animals, &c. ſeem neceſſary alſo. For as we can trace up the firſt imperfect rudiments of the art of ſhipping amongſt the *Greeks*, there could be no ſhipping before the flood; conſequently no animals could be ſaved. Nay, it is highly improbable, that even men, and domeſtic animals, could be ſaved, not to mention wild beaſts, ſerpents, &c. though we ſhould ſuppoſe, that the antediluvians had ſhipping, unleſs we ſuppoſe alſo, that they had a divine intimation and directions about it, ſuch as *Moſes* relates; which would be to give up the cauſe of infidelity at once.

It has been objected likewiſe, that the *Negro* nations differ ſo much from the *Europeans*, that they do not ſeem to have deſcended from the ſame anceſtors. But this objection has no ſolid foundation. We cannot preſume to ſay what alterations climate, air, water, ſoil, cuſtoms, &c. can or cannot produce. It is no ways to be imagined, that all the national differences in complexion, features, make of the bones, &c. require ſo many different originals; on the contrary, we have reaſon from experience to aſſert, that various changes of this kind are made by the incidents of life, juſt as was obſerved, in the laſt paragraph, of plants, and brute animals. And, with reſpect to the different complexions of different nations, Dr. *Mitchell* has ſhewn with great appearance of truth, *Phil. Tranſ. Numb.* 474. that theſe ariſe from external influences. It will confirm this, if it be found, that the *Jews*, by reſiding in any country for ſome generations, approach to the complexion of the original natives. At the ſame time we muſt obſerve from the hiſtory of diſtempers, that acquired diſpoſitions may be tranſmitted to the deſcendents for ſome generations; which is perhaps one of the great truths intimated in the account of the fall. And thus the children of *Negroes* may be black, though born and bred up in a country where the original natives are not ſo.

A third objection is, that it is difficult to account for the original of the *Americans*, and for the wild beaſts and ſerpents that are found in that quarter of the world, according to the *Moſaic* hiſtory. But to this one may anſwer, Firſt, That *America* may be even now contiguous to the north-eaſt part of *Aſia*. Secondly, That it might have been contiguous to other parts of our great continent for ſome centuries after the deluge, though that contiguity be ſince broken off. Thirdly, That the firſt ſailors, who ventured out of the ſtreights, or others, might be driven, by ſtreſs of weather, and their own ignorance, firſt within the influence of the trade-winds, and then to ſome part of *America*. One can offer nothing certain on either ſide, in reſpect of theſe points. However, it ſeems to me, that many cuſtoms found amongſt the *Negroes* and *Americans* are ſtronger evidences, that they are of the ſame original with the *Aſiatics* and *Europeans*, than any which have yet appeared to the contrary. And, upon the whole, I conclude certainly, that the *Moſaic* account of the deluge is much confirmed by both natural and civil hiſtory, if we embrace the firſt and loweſt hypotheſis concerning divine inſpiration; and has very ſtrong preſumptions for it, according to the ſecond or third.

If we could ſuppoſe the high mountains in *South America* not to have been immerged in the deluge, we might the more eaſily account for the wild beaſts, poiſonous ſerpents,

and

and curious birds of *America*. Might not the ark be driven round the globe during the deluge? And might not *Noah* be aware of this, and obſerve that it had been immerged fifteen cubits in water? And may not the *Moſaic* account be partly a narrative of what *Noah* ſaw, partly the concluſions which he muſt naturally draw from thence? Thus the tops of ſome of the higheſt mountains might eſcape, conſiſtently with the *Moſaic* account. The future inquiries of natural hiſtorians may perhaps determine this point.

The next great event recorded in *Geneſis* is the confuſion of languages. Now the *Moſaic* account of this appears highly probable, if we firſt allow that of the deluge. For it ſeems impoſſible to explain how the known languages ſhould ariſe from one ſtock. Let any one try only in *Hebrew*, *Greek*, *Latin*, and *Engliſh*. The changes which have happened in languages ſince hiſtory has been certain, do not at all correſpond to a ſuppoſition of this kind. There is too much of method and art in the *Greek* and *Latin* tongues for them to have been the inventions of a rude and barbarous people; and they differ too much from *Hebrew*, *Arabic*, &c. to have flowed from them without deſign. As to the *Chineſe*, it is difficult to make any probable conjectures about it, partly from its great heterogeneity in reſpect of other languages, partly becauſe learned men have not yet examined it accurately. However, the moſt probable conjecture ſeems to be, that it is the language of *Noah*'s poſtdiluvian poſterity; the leaſt probable one, that it could have flowed naturally from any known language, or from the ſame ſtock with any; which it muſt have done, if we admit the deluge, and yet reject the confuſion of languages.

The diſperſion of the three ſons of *Noah* into different countries, related in the tenth chapter of *Geneſis*, comes next under conſideration, being a conſequence, not the cauſe, of the diverſity of languages. Now here antiquarians, and learned men, ſeem to be fully agreed, that the *Moſaic* account is confirmed, as much as can be expected in our preſent ignorance of the ſtate of ancient nations. And it is to be obſerved of all the articles treated of under this propoſition, that we, who live in the north-weſt corner of *Europe*, lie under great diſadvantages in ſuch reſearches. However, ſince thoſe who have ſtudied the oriental languages and hiſtories, or have travelled into the eaſtern parts, have made many diſcoveries of late years, which have ſurprizingly confirmed the ſcripture accounts, one may hope and preſume, that if either our learned men be hereafter ſuffered to have free acceſs to thoſe parts, or the natives themſelves become learned, both which are ſurely probable in the higheſt degree, numberleſs unexpected evidences for the truth of the ſcripture hiſtory will be brought to light.

Let us next come to the ſtate of religion in the ancient poſtdiluvian world, according to *Moſes*, and the ſucceeding ſacred hiſtorians. The poſtdiluvian patriarchs then appear to have worſhipped the one Supreme Being by ſacrifices, but in a ſimple manner, and to have had frequent divine communications. By degrees their poſterity fell off to idolatry, worſhipped the ſun, moon, and ſtars, deified dead men, and polluted them-

ſelves with the moſt impure and abominable inſtitutions. The *Iſraelites* alone were kept to the worſhip of the true God, and even they were often infected by their idolatrous neighbours. Now all this is perfectly agreeable to what we find in pagan hiſtory. The idolatries of the pagans are acknowledged on all hands. It appears alſo from pagan hiſtory, that they grew up by degrees, as the ſcriptures intimate. All the pagan religions appear to have had the worſhip of one god ſuperior to the reſt, as their common foundation. They all endeavoured to render him propitious by ſacrifice; which ſurely cannot be an human invention, nor a cuſtom, which, if invented in one nation, would be readily propagated to another. They all joined mediatorial and inferior, alſo local and tutelar deities to the one god. And they all taught the frequency of divine communications. Hence the pagan religions appear to be merely the degenerated offſpring of patriarchal revelations, and to infer them as their cauſe. Hence the pretences of kings, lawgivers, prieſts, and great men, to inſpiration, with the credulity of the multitude. That there had been divine communications, was beyond diſpute; and therefore all that reluctance to admit them, which appears in the preſent age, was over-ruled. At firſt there were no impoſtors. When therefore they did ariſe, it would not be eaſy for the multitude to diſtinguiſh between thoſe who had really divine communications, and thoſe who only pretended to them; till at laſt all real inſpiration having ceaſed amongſt the gentile world, their ſeveral religions kept poſſeſſion merely by the force of education, fraud in the prieſts, and fear in the people; and even theſe ſupports began to fail at laſt, about the time of Chriſt's coming. And thus many things, which have been thought to weaken the evidences for the ſcripture accounts, are found to ſtrengthen them, by flowing nuturally from that ſtate of religion in ancient times, and from that only, which the ſcripture delivers.

A farther confirmation of the ſame ſcripture accounts of the flood, diſperſion of mankind, and patriarchal revelations, may be had from the following very remarkable particular: it appears from hiſtory, that the different nations of the world have had, *cæteris paribus*, more or leſs knowledge, civil and religious, in proportion as they were nearer to, or had more intimate communication with, *Egypt*, *Palæſtine*, *Chaldæa*, and the other countries, that were inhabited by the moſt eminent perſons amongſt the firſt deſcendents of *Noah*, and by thoſe who are ſaid in ſcripture to have had particular revelations made to them by God; and that the firſt inhabitants of the extreme parts of the world, reckoning *Palæſtine* as the centre, were in general mere ſavages. Now all this is utterly inexplicable upon the footing of infidelity, of the excluſion of all divine communications. Why ſhould not human nature be as ſagacious, and make as many diſcoveries, civil and religious, at the Cape of *Good Hope*, or in *America*, as in *Egypt*, *Palæſtine*, *Meſopotamia*, *Greece*, or *Rome?* Nay, why ſhould *Palæſtine* ſo far exceed them all, as it did confeſſedly? Allow the ſcripture accounts, and all will be clear and eaſy. Mankind, after the flood, were firſt diſperſed from the plains of *Meſopotamia*. Some of the chief heads of families ſettled there, in *Palæſtine*, and in *Egypt*. *Palæſtine* had

had afterwards extraordinary divine illuminations beſtowed upon its inhabitants, the *Iſraelites* and *Jews*. Hence its inhabitants had the pureſt notions of God, and the wiſeſt civil eſtabliſhment. Next after them come the *Egyptians* and *Chaldæans*, who, not being removed from their firſt habitations, and living in fertile countries watered by the *Nile*, *Tigris*, and *Euphrates*, may be ſuppoſed to have preſerved more both of the antediluvian and poſtdiluvian revelations, alſo to have had more leiſure for invention, and a more free communication with the *Iſraelites* and *Jews*, than any other nations: whereas thoſe ſmall parties, which were driven farther and farther from each other into the extremes of heat and cold, entirely occupied in providing neceſſaries for themſelves, and alſo cut off by rivers, mountains, or diſtance, from all communication with *Palæſtine*, *Egypt*, and *Chaldæa*, would loſe much of their original ſtock, and have neither inclination nor ability to invent more.

Let us now conſider the hiſtory of particular facts, and inquire what atteſtations we can produce from pagan hiſtory for the ſcripture accounts of *Abraham*, and his poſterity the *Iſraelites* and *Jews*. We cannot expect much here, partly becauſe theſe things are of a private nature, if compared to the univerſal deluge, partly becauſe the pagan hiſtory is either deficient, or groſsly corrupted with fable and fiction, till we come to the times of the declenſion of the kingdoms of *Iſrael* and *Judah*. However, ſome faint traces there are in ancient times, and many concurring circumſtances in ſucceeding ones; and, as ſoon as the pagan records come to be clear and certain, we have numerous and ſtrong confirmations of the ſacred hiſtory. Thus the hiſtory of *Abraham* ſeems to have tranſpired in ſome meaſure. It is alſo probable, that the ancient *Brachmans* were of his poſterity by *Keturah*, that they derived their name from him, and worſhipped the true God only. *Moſes* is mentioned by many heathen writers, and the accounts which they give of his conducting the *Iſraelites* from *Egypt* to *Canaan* are ſuch as might be expected. The authors lived ſo long after *Moſes*, and had ſo little opportunity or inclination to know the exact truth, or to be particular, that their accounts cannot invalidate the ſcripture hiſtory, though they do a little confirm it. The expulſion of the *Canaanites* by *Joſhua* ſeems to have laid the foundation of the kingdom of the *ſhepherds* in the *Lower Egypt* mentioned by *Manetho*, and of the expulſion of the natives into the *Upper Egypt*; who, after ſome centuries, drove the *ſhepherds* back again into *Canaan* about the time of *Saul*. The *Canaanites* mentioned by St. *Auſtin* and others, upon the coaſt of *Afric*, may be of the ſame original. *See Newton's Chronol. page* 198. We may conclude from the book of *Judges*, that there were many petty ſovereignties in the neighbourhood of *Canaan*; and it appears from pagan hiſtory, as Sir *Iſaac Newton* has rectified it, that the firſt great empire, that of *Egypt*, was not yet riſen. When *David* ſubdued the *Philiſtines* or *Phœnicians*, *Cadmus* and others ſeem to have fled into *Greece*, and to have carried letters with them, which the *Philiſtines* had probably learnt, about a generation before, from the copy of the law found in the ark taken from the *Iſraelites*. After *Solomon*'s temple was built, the

temple of *Vulcan* in *Egypt*, and others in other places, began to be built in imitation of it; juſt as the oracles of the heathens were imitations of God's communications to the *Iſraelites*, and particularly of that by *Urim* and *Thummim*. *Shiſhak*, who came out of *Egypt* in the fifth year of *Reboboam*, is the *Seſoſtris* of *Herodotus*; and this point, being ſettled, becomes a capital pin, upon which all the pagan chronology depends. Hence *Herodotus*'s liſt of the *Egyptian* kings is made probable and conſiſtent. As we advance farther to the *Aſſyrian* monarchy, the ſcripture accounts agree with the profane ones rectified; and when we come ſtill farther to the *æra* of *Nabonaſſar*, and to the kings of *Babylon* and *Perſia*, which are poſterior to this *æra*, and recorded in *Ptolemy*'s canon, we find the agreement of ſacred and profane hiſtory much more exact, there being certain criterions in the profane hiſtory for fixing the facts related in it. And it is remarkable, that not only the direct relations of the hiſtorical books, but the indirect, incidental mention of things in the prophecies, tallies with true chronology; which ſurely is ſuch an evidence for their genuineneſs and truth, as cannot be called in queſtion. And, upon the whole, it may be obſerved, that the ſacred hiſtory is diſtinct, methodical, and conſiſtent throughout; the profane utterly deficient in the firſt ages, obſcure, and full of fictions, in the ſucceeding ones; and that it is but juſt clear and preciſe in the principal facts about the time that the ſacred hiſtory ends. So that this corrects and regulates that, and renders it intelligible in many inſtances, which muſt otherwiſe be given up as utterly inexplicable. How then can we ſuppoſe the ſacred hiſtory not to be genuine and true, or a wicked impoſture to riſe up, and continue not only undiſcovered, but even to increaſe to a moſt audacious height, in a nation which of all others kept the moſt exact accounts of time? I will add one remark more: this ſame nation, who may not have loſt ſo much as one year from the creation of the world to the *Babyloniſh* captivity, as ſoon as they were deprived of the aſſiſtance of prophets, became moſt inaccurate in their methods of keeping time, there being nothing more erroneous than the accounts of *Joſephus*, and the modern *Jews*, from the time of *Cyrus*, to that of *Alexander the Great*; notwithſtanding that all the requiſite aſſiſtances might eaſily have been borrowed from the neighbouring nations, who now kept regular annals. Hence it appears, that the exactneſs of the ſacred hiſtory was owing to the divine aſſiſtance.

It is an evidence in favour of the ſcriptures, allied to thoſe which I am here conſidering, that the manners of the perſons mentioned in the ſcriptures have that ſimplicity and plainneſs, which is alſo aſcribed to the firſt ages of the world by pagan writers; and both of them concur, by this, to intimate the novelty of the then preſent race, *i. e.* the deluge.

Beſides theſe atteſtations from profane hiſtory, we may conſider the *Jews* themſelves as bearing teſtimony to this day, in all countries of the world, to the truth of their ancient hiſtory, *i. e.* to that of the Old and New Teſtaments. Allow this, and it will be eaſy to ſee how they ſhould ſtill perſiſt in their attachment to that religion, thoſe laws,

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and thoſe prophecies, which ſo manifeſtly condemn them, both in paſt times, and in the preſent. Suppoſe any conſiderable alteration made in their ancient hiſtory, *i. e.* any ſuch as may anſwer the purpoſes of infidelity, and their preſent ſtate will be inexplicable.

The books of the New Teſtament are verified by hiſtory, in a manner ſtill more illuſtrious; theſe books being written, and the facts mentioned therein tranſacted, during the times of *Auguſtus*, *Tiberius*, and the ſucceeding *Cæſars*. Here we may obſerve,

Firſt, That the incidental mention of the *Roman* emperors, governors of *Judæa*, and the neighbouring provinces, the *Jewiſh* high prieſts, ſects of the *Jews*, and their cuſtoms, of places, and of tranſactions, is found to be perfectly agreeable to the hiſtories of thoſe times. And as the whole number of theſe particulars is very great, they may be reckoned a full proof of the genuineneſs of the books of the New Teſtament; it being impoſſible for a perſon who had forged them, *i. e.* who was not an eye and ear witneſs, and otherwiſe concerned with the tranſactions as the books require, but who had invented many hiſtories and circumſtances, &c. not to have been deficient, ſuperfluous, and erroneous. No man's memory or knowledge is ſufficient for ſuch an adaptation of feigned circumſtances, and eſpecially where the mention is incidental. Let any one conſider how often the beſt poets fail in this, who yet endeavour not to vary from the manners and cuſtoms of the age of which they write; at the ſame time that poetry neither requires nor admits ſo great a minuteneſs in the particular circumſtances of time, place, and perſons, as the writers of the New Teſtament have deſcended to naturally and incidentally

Secondly, That Chriſt preached in *Judæa* and *Galilee*, made many diſciples, and was crucified under *Pontius Pilate*, at the inſtigation of the chief men among the *Jews*; alſo that his diſciples preached after his death, not only in *Judæa*, but all over the *Roman* empire; that they converted multitudes, were perſecuted, and at laſt ſuffered death, for their firm adherence to their maſter; and that both *Chriſt* and his diſciples pretended to work many miracles; are facts atteſted by civil hiſtory in the ampleſt manner, and which cannot be called in queſtion. Now theſe facts are ſo connected with the other facts mentioned in the New Teſtament, that they muſt ſtand or fall together. There is no probable account to be given of theſe facts, but by allowing the reſt. For the proof of this, I appeal to every reader who will make the trial. It may alſo be concluded from the remarkable unwillingneſs of the preſent unbelievers to allow even the plaineſt facts in expreſs terms. For it ſhews them to be apprehenſive, that the connection between the ſeveral principal facts mentioned in the New Teſtament is inſeparable, and that the atteſtation given to ſome by civil hiſtory may eaſily be extended to all.

It has been objected, that more mention ought to have been made of the common facts by the profane writers of thoſe times, alſo ſome acknowledgment of the miraculous ones, had they been true. To this we may anſwer, Firſt, That *Judæa* was but a ſmall and diſtant province of the *Roman* empire, and the *Jews* themſelves, with whom the

Chriſtians

Chriſtians were for a long time confounded, much deſpiſed by the *Romans*. Secondly, That hiſtorians, politicians, generals, &c. have their imaginations ſo much preoccupied by affairs of ſtate, that matters purely religious are little regarded by them. *Gallio cared for none of theſe things*. Thirdly, That a perſon who attended in any great degree to the chriſtian affairs, if a good man, could ſcarce avoid becoming a chriſtian; after which his teſtimony ceaſes to be pagan, and becomes chriſtian; of which I ſhall ſpeak under the next head. Fourthly, That both thoſe who were favourers of the chriſtians, and thoſe averſe to them in a moderate degree, one of which muſt be the caſe with great numbers, would have motives to be ſilent; the half chriſtians would be ſilent for fear of being perſecuted; and the others would affect to take no notice of what they diſliked, but could not diſprove; which is a fact that occurs to daily obſervation. Laſtly, when theſe things are laid together, the atteſtations of the profane writers to the common facts appear to be ſuch as one might expect, and their ſilence as to the miraculous ones is accounted for.

Thirdly, All the chriſtian writers, from the time of the apoſtles and downwards, bear teſtimony to the genuineneſs of the books of the New Teſtament, and the truth of the facts, in a great variety of ways, direct and indirect, and in ſuch manner as might be expected. Their quotations from them are numberleſs, and agree ſufficiently with the preſent copies. They go every where upon the ſuppoſition of the facts, as the foundation of all their diſcourſes, writings, hopes, fears, &c. They diſcover every where the higheſt regard, and even veneration, both for the books and the authors. In ſhort, one cannot ſee how this teſtimony in favour of the books of the New Teſtament can be invalidated, unleſs by ſuppoſing all the eccleſiaſtical writings of the firſt centuries to be forged alſo; or all the writers to have concurred to write as if they believed the genuineneſs and truth of theſe books, though they did not; or to have had no ability or inclination to diſtinguiſh genuineneſs and truth from forgery and falſehood; or by ſome other ſuch ſuppoſition, as will ſcarce bear to be named.

Here three queſtions may be aſked, that bear ſome relation to this ſubject; and the anſwers to which will, I think, illuſtrate and confirm what has been advanced in the laſt paragraph.

Thus, Firſt, It may be aſked, why we have not more accounts of the life of Chriſt tranſmitted to us. To this I anſwer, that it is probable from St. *Luke's* preface, that there were many ſhort and imperfect accounts handed about very early; the authors of which, though they had not taken care to inform themſelves accurately, did not, however, endeavour to impoſe on others deſignedly; and that all theſe grew into diſuſe, of courſe, after the four goſpels, or perhaps the three firſt, were publiſhed, or, at leaſt, after the canon of the New Teſtament was formed; alſo that after this the chriſtians were ſo perfectly ſatisfied, and had the four goſpels in ſuch eſteem, that no one preſumed to add any other accounts, and eſpecially as all the apoſtles were then dead.

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The Second Queſtion is, how come we to have ſo little account, in the primitive writers, of the lives, labours, and ſufferings of the apoſtles? I anſwer, that the apoſtles ſeem to have reſided in *Judæa*, till *Nero*'s army invaded it, and afterwards to have travelled into diſtant parts; and that neither their converts in *Judæa*, nor thoſe in the diſtant barbarous countries, into which they travelled, could have any probable motive for writing their lives: alſo, that, as to other chriſtians, they had neither opportunities nor motives. The chriſtians looked up to Chriſt, as their maſter, not to the apoſtles. Their great buſineſs was to promote chriſtianity, not to gratify their own or other's fruitleſs curioſity. They were not learned men, who had ſpent their lives in the ſtudy of annaliſts and biographers. They did not ſuſpect, that an account of the lives of the apoſtles would ever be wanted, or that any one could call their integrity, inſpiration, miracles, &c. in queſtion. St. *Luke* ſeems to have deſigned by his *Acts*, chiefly to ſhew how the goſpel firſt got firm footing amongſt *Jews*, proſelytes of the gate, and idolatrous gentiles; in order to encourage the new converts to copy the examples of the apoſtles, and firſt preachers, and to publiſh the goſpel in all nations. Laſtly, the primitive chriſtians had early diſputes with *Jews*, heathens, heretics, and even with one another; which took up much of their attention and concern.

Thirdly, It may be aſked, who were the perſons that forged the ſpurious acts and revelations of ſeveral of the apoſtles, &c. I anſwer, that, amongſt the number of thoſe who joined themſelves to the chriſtians, there muſt be many whoſe hearts were not truly purified, and who, upon apoſtatizing, would become more ſelf-intereſted, vain-glorious, and impure, than before. Theſe were antichriſts, as St. *John* calls them, who left the church becauſe they were not of it. Some of theſe forged books to ſupport themſelves, and eſtabliſh their own tenets. Others might write partly like enthuſiaſts, partly like impoſtors. And, laſtly, There were ſome both weak and wicked men, though not ſo abandoned as the ancient heretics, who in the latter end of the ſecond century, and afterwards, endeavoured to make converts by forgeries, and ſuch other wicked arts. However, all thoſe who are uſually called fathers, in the firſt ages, ſtand remarkably clear of ſuch charges.

Fourthly, The propagation of chriſtianity, with the manner in which it was oppoſed by both *Jews* and Gentiles, bears witneſs to the truth and genuineneſs of the books of the New Teſtament. But I forbear entering upon this argument, as it will come more properly in another place. Let me only obſerve here, that there are many paſſages in the Talmudical writings, which afford both light and confirmation to the New Teſtament, notwithſtanding that one principal deſign of the authors was to diſcredit it.

PROP. CXXIV.

The Agreement of the Books of the Old and New Teſtaments with themſelves and with each other, is an Argument both of their Genuineneſs and Truth.

THE truth of this propoſition will be evident, if a ſufficient number of theſe mutual agreements can be made out. It is never found, that any ſingle perſon, who deviates much from the truth, can be ſo perfectly upon his guard as to be always conſiſtent with himſelf. Much leſs therefore can this happen in the caſe of a number, living alſo in different ages. Nothing can make them conſiſtent, but their copying faithfully after real facts. The inſtances will make this clearer.

The laws of the *Iſraelites* are contained in the Pentateuch, and referred to in a great variety of ways, direct and indirect, in the hiſtorical books, in the Pſalms, and in the Prophecies. The hiſtorical facts alſo in the preceding books are often referred to in thoſe that ſucceed, and in the Pſalms and Prophecies. In like manner the goſpels have the greateſt harmony with each other, and the Epiſtles of St. *Paul* with the *Acts of the Apoſtles*. And indeed one may ſay, that there is ſcarce any book of either Old or New Teſtament, which may not be ſhewn to refer to many of the reſt in ſome way or other. For it is to be obſerved, that the Bible has been ſtudied and commented upon far more than any other book whatſoever; and that it has been the buſineſs of believers in all ages to find out the mutual relations of its parts, and of unbelievers to ſearch for inconſiſtencies; alſo that the firſt meet every day with more and more evidences in favour of the ſcriptures from the mutual agreements and coincidences here conſidered; and that unbelievers have never been able to allege any inconſiſtencies that could in the leaſt invalidate the truth of the principal facts; I think, not even affect the divine inſpiration of the hiſtorical books, according to the ſecond or third hypotheſis above-mentioned.

It will probably illuſtrate this propoſition, to bring a parallel inſtance from the *Roman* writers. Suppoſe then that no more remained of theſe writers than *Livy*, *Tully*, and *Horace*. Would they not by their references to the ſame facts and cuſtoms, by the ſameneſs of ſtyle in the ſame writer, and differences in the different ones, and numberleſs other ſuch like circumſtances of critical conſideration, prove themſelves, and one another to be genuine, and the principal facts related, or alluded to, to be true?

It is alſo to be obſerved, that this mutual harmony and ſelf-conſiſtency, in its ultimate ratio, is the whole of the evidence which we have for facts done in ancient times or diſtant places. Thus, if a perſon was ſo ſceptical as to call in queſtion the whole *Roman* hiſtory, even the moſt notorious facts, as their conqueſts firſt of *Italy*, and then of the neighbouring countries, the death of *Cæſar*, and the fall of the weſtern empire by the invaſions of the *Goths* and *Vandals*, with all the evidences of theſe from

books,

books, inſcriptions, coins, cuſtoms, &c. as being all forged in order to deceive; one could only ſhew him, that it is inconſiſtent with what he ſees of human nature, to ſuppoſe that there ſhould be ſuch a combination to deceive; or that the agreement of theſe evidences with each other is far too great to be the effect of any ſuch fraudulent deſign, of chance, &c. And all theſe arguments are, in effect, only bringing a number of concurring evidences, whoſe ſum total ſoon approaches to the ultimate limit, *i. e.* to unity, or abſolute certainty, nearer than by any diſtinguiſhable difference. It does not therefore import, in reſpect of real conviction, after a certain number are brought, whether we bring any more or no; they can only add this imperceptible defect, *i. e.* practically nothing. Thus I ſuppoſe, that the remaining writings of *Livy*, *Tully*, and *Horace* alone would ſatisfy any impartial man ſo much of the general extenſiveneſs of the *Roman* conqueſts, &c. that nothing perceptible could be added to his conviction; no more than any common event can, or ever does in fact, appear more credible from the teſtimony of a thouſand than of ten or twenty witneſſes of approved integrity. And whoever will apply this reaſoning to the preſent caſe, muſt perceive, as it appears to me, that the numberleſs minute, direct, and indirect agreements and coincidences, that preſent themſelves to all diligent readers of the ſcriptures, prove their truth and genuineneſs beyond all contradiction, at leaſt according to the firſt and loweſt hypotheſis concerning divine inſpiration.

As to thoſe few and ſmall apparent inconſiſtencies, which are ſuppoſed to confine the inſpiration of the ſcriptures to this loweſt ſenſe; one may obſerve, that they decreaſe every day as learned men inquire farther; and that, were the ſcriptures perfectly exact in every particular, there muſt be ſome apparent difficulties, ariſing merely from our ignorance of ancient languages, cuſtoms, diſtant places, &c. and conſequently that if theſe be not more, than our ignorance makes it reaſonable to expect, they are no objection at all. And of apparent inconſiſtencies one may remark in particular, that they exclude the ſuppoſition of forgery. No ſingle forger, or combination of forgers, would have ſuffered the apparent inconſiſtencies which occur in a few places, ſuch as the different genealogies of Chriſt in St. *Matthew* and St. *Luke*, and ſome little variations in the narration of the ſame fact in different goſpels. Theſe are too obvious at firſt ſight not to have been prevented, had there been any fraud.

I will here add an hypotheſis, by which, as it appears to me, one may reconcile the genealogies of St. *Matthew* and St. *Luke*. I ſuppoſe then, that St. *Matthew* relates the real progenitors of *Joſeph*; St. *Luke* the ſeries of thoſe who were heirs to *David* by birthright; and that both tranſcribed from genealogical tables, well known to the *Jews* of thoſe times. St. *Matthew* after *David* takes *Solomon*, from whom *Joſeph* lineally deſcended. St. *Luke* takes *Nathan*, upon whom, though younger than ſome others, and even than *Solomon*, we muſt ſuppoſe the birthright to be conferred, as in the inſtances of *Jacob* and *Joſeph*. St. *Matthew* proceeds by real deſcent to *Salathiel*, at the time of the captivity; St. *Luke* proceeds by the heirs according to birth right,

and comes to *Salathiel* likewiſe. We muſt therefore ſuppoſe, that *Salathiel*, *Solomon*'s heir, was now *David*'s alſo, by the extinction of all the branches of *Nathan*'s family. St. *Matthew* then takes *Zorobabel* as *Joſeph*'s real progenitor, St. *Luke* takes him as heir or eldeſt ſon to *Salathiel*. Again, St. *Matthew* takes *Abiud* the real progenitor, St. *Luke Rheſa* the eldeſt ſon; and thus St. *Matthew* proceeds by lineal deſcent to *Joſeph*, St. *Luke* by heirs to the ſame *Joſeph*; for we are to ſuppoſe, that *Heli* dying without heirs male, *Joſeph* became his heir by birthright, *i. e.* heir to *Zorobabel*, *i. e.* to *David*. If we farther ſuppoſe, that the virgin *Mary* was daughter to *Heli*, for which there appears to be ſome evidence, the ſolution will be more complete, and more agreeable to the *Jewiſh* cuſtoms. It confirms this ſolution, that St. *Matthew* uſes the word ἐγέννησε, which reſtrains his genealogy to lineal deſcent; whereas St. *Luke* uſes the article τῷ, which is very general. It confirms it alſo, that St. *Luke*'s deſcents, reckoning from *David* to *Salathiel*, are but about twenty-two years apiece; which is much too ſhort for deſcents from father to ſon, but agrees very well to deſcents by birthright. As to St. *Matthew*'s deſcents, they are far too long, after the captivity, for deſcents from father to ſon; but then it is eaſy to ſuppoſe, that ſome were left out on account of dying before their fathers, or ſome other reaſon. Three of the kings of *Judah* are left out after *Joram*, perhaps on account of their being of the immediate poſterity of the idolatrous *Ahab*'s daughter *Athaliah*. Others are left out after the captivity, perhaps for ſome ſimilar reaſon.

PROP. CXXV.

The Unity of Deſign, which appears in the Diſpenſations recorded in the Scriptures, is an Argument not only of their truth and Genuineneſs, but alſo of their Divine Authority.

For this unity is not only ſo great as to exclude forgery and fiction, in the ſame way as the mutual agreements mentioned in the laſt propoſition, but alſo greater than the beſt and ableſt men could have preſerved, in the circumſtances of theſe writers, without the divine aſſiſtance. In order to ſee this, let us inquire what this deſign is, and how it is purſued by the ſeries of events, and divine interpoſitions, recorded in the ſcriptures.

The deſign is that of bringing all mankind to an exalted, pure, and ſpiritual happineſs, by teaching, enforcing, and begetting in them love and obedience to God. This appears from many paſſages in the Old Teſtament, and from almoſt every part of the New. Now we are not here to inquire in what manner an almighty being could ſooneſt and moſt effectually accompliſh this. But the queſtion is, whether, laying down the ſtate of things as it has been, is, and probably will be, for our foundation, there be not a remarkable fitneſs in the diſpenſations aſcribed to God in the ſcriptures, to produce this glorious effect; and whether perſons who adminiſtered theſe diſpenſations did

did not here concur with a ſurprizing uniformity, though none of them ſaw God's ultimate deſign completely, and ſome but very imperfectly; juſt as brutes by their inſtincts, and children by the workings of their natural faculties, contribute to their own preſervation, improvement, and happineſs without at all foreſeeing, that they do this. If we alter any of the circumſtances of the microcoſm or macrocoſm, of the frame of our own natures, or of the external world that ſurrounds us, we ſhall have queſtion riſe up after queſtion in an endleſs ſeries, and ſhall never be ſatisfied, unleſs God ſhould be pleaſed to produce happineſs inſtantaneouſly, *i. e.* without any means, or ſecondary inſtrumental cauſes, at all; and, even then, we ſhould only be where we were at our firſt ſetting out, if things be conſidered in the true, ultimate light. We are therefore to lay down the real ſtate of things, as our foundation, *i. e.* we are to ſuppoſe man to be in a ſtate of good mixed with evil, born with appetites, and expoſed to temptations, to which if he yields, ſuffering muſt follow; which ſuffering, however, tends to eradicate the diſpoſition from whence it flowed, and to implant a better: we are to ſuppoſe him to be endued with voluntary powers, which enable him to model his affections and actions according to a rule; and that the love of God, his ultimate happineſs, can never be genuine, but by his firſt learning to fear God, by his being mortified to pleaſure, honour, and profit, and the moſt refined ſelfiſh deſires, and by his loving his neighbour as himſelf, *i. e.* we muſt ſuppoſe all that which practical writers mean by a ſtate of trial, temptation, moral exerciſe and improvement, and of practical free-will. Let us ſee therefore, how the ſeveral diſpenſations mentioned in the ſcriptures, their being recorded there, and the ſubordinate parts, which the prophets and apoſtles acted, conſpired to bring about this ultimate end of man, both in each individual, and in the whole aggregate, conſidered as one great individual, as making up the myſtical body of Chriſt, according to the language of St. *Paul*; and inquire, whether, if all other reaſons were ſet aſide, the mere harmony and concurrence of ſo many parts, and ſo many perſons removed from each other by long intervals of time, in this one great deſign, will not compel us to acknowledge the genuineneſs, truth, and divine authority, of the ſcriptures.

The firſt thing which preſents itſelf to us in the ſcriptures, is the hiſtory of the creation and fall. Theſe are not to be accounted for, as was ſaid above, being the foundation upon which we go. However, the recording them by *Moſes*, as tradition began to grow weak and uncertain, has been of great uſe to all thoſe, who have had them communicated by this means perfectly or imperfectly, *i. e.* to a great part of the world. This hiſtory impreſſes an awful and amiable ſenſe of the Divine Being, our creator and judge; ſhews the heinouſneſs of ſin; and mortifies us to this world, by declaring that our paſſage through it muſt be attended with labour and ſorrow. We find ourſelves in this ſtate; revealed religion did not bring us into it: nor is this ſtate an objection to revealed religion, more than to natural: however, revealed religion

goes a ſtep higher than natural, and ſhews the immediate ſecondary cauſe, viz. the ſin and wilful diſobedience of our firſt parents. And when the account of paradiſe, of man's expulſion thence, and of the curſe paſt upon him in the beginning of *Geneſis*, are compared with the removal of this curſe, of ſorrow, crying, pain, and death, with the renovation of all things, and with man's reſtoration to the tree of life and paradiſe, and his admiſſion into the new *Jeruſalem* in the laſt chapters of the revelation, hope and fear quicken each other; and both conſpire to purify the mind, and to advance the great deſign conſidered under this propoſition.

How far the deluge was neceſſary, *cæteris manentibus*, for the purification of thoſe who were deſtroyed by it, *i. e.* for accompliſhing this great end in them, we cannot preſume to ſay. It is ſufficient, that there is no contrary preſumption, that no methods conſiſtent with the ſtate of things in the ancient world were neglected, as far as we know, and that we are not in the leaſt able to propoſe a better ſcheme. We leave theſe rebellious, unhappy people, now tranſlated into another ſtate, to the ſame kind Providence which attended them in this, and all whoſe puniſhments on this ſide the grave are for melioration. However, the evident footſteps of this in the world, and the clear tradition of it, which would continue for ſeveral ages, alſo the hiſtory of it delivered by *Moſes*, have an unqueſtionable good tendency. Sinners, who reflect at all, cannot but be alarmed at ſo dreadful an inſtance of divine ſeverity. Farther, if this hiſtory ſhould open to us a new relation, viz. that which we bear to the comets, this, compared with other parts of the ſcriptures, may give us hereafter ſuch intimations concerning the kind, degree, and duration of future puniſhment, as will make the moſt obdurate tremble, and work in them that fear which is the beginning of wiſdom, and of the perfect love which caſteth out fear. At the ſame time we may obſerve, that the covenant which God made, not only with *Noah* and his poſterity, but with all living creatures, after the flood, has a direct and immediate tendency to beget love.

The confuſion of languages, the conſequent diſperſion of mankind, and the ſhortening of the lives of the poſtdiluvians, all concurred to check the exorbitant growth and infection of wickedneſs. And we may judge how neceſſary theſe checks were, *cæteris manentibus*, from the great idolatry and corruption which appeared in the world within leſs than a thouſand years after the flood. The patriarchal revelations mentioned and intimated by *Moſes* had the ſame good effects, and were the foundations of thoſe pagan religions, and, in great meaſure, of that moral ſenſe, which, corrupt and imperfect as they were, could not but be far preferable to an entire want of theſe. If it be objected, that, according to this, greater checks, and more divine communications, were wanted; I anſwer, that a greater diſperſion, or ſhortening of human life, might have prevented the deſtined increaſe of mankind, or the growth of knowledge, civil and religious, &c. and that more or more evident divine interpoſitions might have reſtrained the voluntary powers too much, or have precluded that faith which is

neceſſary

neceſſary to our ultimate perfection. Theſe are conjectures indeed; but they are upon the level with the objection, which is conjectural alſo.

The next remarkable particular that occurs, is the calling of *Abraham*, the father of the faithful. Now in this part of the ſcripture hiſtory, as it is explained by the New Teſtament, we have the ſtrongeſt evidences of God's great deſign to purify and perfect mankind. He is called to forſake his relations, friends and country, leſt he ſhould be corrupted by idolatry; he receives the promiſe of the land of *Canaan*, without ſeeing any probable means of obtaining it, beſides this promiſe, in order to wean him from the dependence on external means; he waits for a ſon till all natural expectations ceaſed, for the ſame purpoſe; by obtaining him he learns to truſt in God notwithſtanding apparent impoſſibilities; and the command to ſacrifice *his ſon, his only ſon Iſaac, whom he loved*, affords him a noble opportunity of exerciſing this truſt, and of ſhewing, that his principle of obedience to God was already ſuperior to the pureſt of earthly affections. Laſtly, when God promiſes him, as a reward for all his faith and obedience, as the higheſt bleſſing, that *in him and his ſeed all the nations of the earth ſhould be bleſſed*, we muſt conceive this to be a declaration, firſt, that God himſelf is infinitely benevolent; and, ſecondly, that the happineſs of *Abraham*, of his ſeed, and of all mankind who were to be bleſſed in his ſeed, muſt ariſe from their imitation of God in his benevolence. This whole univerſe is therefore a ſyſtem of benevolence, or, as St. *Paul* expreſſes it, a body, which, being *fitly framed and compacted together, increaſeth itſelf in love.*

As to the objection which is ſometimes made to the ſacrifice of *Iſaac*, we may obſerve, that *Abraham* had himſelf received ſo many divine communications, and had been acquainted with ſo many made to his anceſtors, that he had no doubt about the commands coming from God, did not even aſk himſelf the queſtion. It is probable, that in that early age there had as yet been few or no falſe pretences, or illuſions. *Abraham* could as little doubt of God's right to *Iſaac*'s life, or of his care of him in another ſtate. Theſe things were parts of the patriarchal religion. And yet great faith was required in *Abraham*, before he could overcome his natural affection and tenderneſs for *Iſaac* out of a principle of obedience to God, and truſt God for the accompliſhment of his promiſe, though he commanded him to deſtroy the only apparent means of accompliſhing it. Unleſs *Abraham* had been highly advanced in faith and obedience, he could not have ſtood ſo ſevere a trial; but this trial would greatly confirm theſe. And thus this hiſtory is ſo far from being liable to objection, that it is peculiarly conformable to thoſe methods, which mere reaſon and experience dictate as the proper ones, for advancing and perfecting true religion in the ſoul. When the typical nature of it is alſo conſidered, one cannot ſurely doubt of its divine authority. And, in the previous ſteps, through which *Abraham* paſſed in order to obtain this bleſſing, we have an adumbration and example of that faith, patience, and gradual progreſs in the ſpiritual life, which are neceſſary to all thoſe who hope to be *bleſſed with faithful Abraham.*

Let

Let us next paſs on to *Moſes*, and the *Iſraelites* under his conduct. Here we enter upon the conſideration of that people, who are the type of mankind in general, and of each individual in particular; who were the keepers of the oracles of God, and who, under God, agreeably to his promiſe to *Abraham*, have been, and will hereafter be a bleſſing to all nations, and the means of reſtoring man to his paradiſiacal ſtate. And firſt they are oppreſſed with a cruel ſlavery in *Egypt*, leſt, being delighted with its fertility, and the preſent pleaſures of ſenſe which it afforded, they ſhould forget their true earthly country, *the land of promiſe*. They then ſee the moſt amazing judgments inflicted upon their enemies the *Egyptians* by God, whilſt they themſelves were protected and delivered, that ſo they might learn confidence in his power and favour, and be thus prepared for their inſtitution in religion, and their trial and purification in the wilderneſs. And here the awful delivery of the law, their being fed from day to day by miracle, their being kept from all commerce with other nations, and from all cares of this world in building, planting, &c. till their old habits, and *Egyptian* cuſtoms and idolatries, were quite effaced, and the practice of the new law eſtabliſhed, their having the hiſtory of the world, and particularly of their anceſtors, laid before them in one view, their tabernacle, their numerous rites and ceremonies, additional to thoſe of the patriarchal religion, and oppoſite to the growing idolatries of their neighbours the *Egyptians* and *Canaanites*, and which, beſides their uſes as types, were memorials of their relation to God, and of his conſtant preſence and protection, and, laſtly, the total extinction of that murmuring generation, who longed for the fleſh-pots of *Egypt*, cannot but appear to be intended for the purification of this choſen people, as being remarkably analogous to the methods of purification, which every good man experiences in himſelf, and ſees in others, *i. e.* cannot but appear highly conducive to the great deſign conſidered under this propoſition. At laſt, the education and inſtruction of this people being finiſhed, they are admitted to inherit the earthly promiſe made to their forefathers, and take poſſeſſion of the land of *Canaan* under *Joſhua*. And thus we come to a remarkable period in God's diſpenſations to them.

Now therefore they are, in ſome meaſure, left to themſelves, for the ſake of moral improvement, the divine interpoſitions being far leſs frequent and ſolemn, than at the firſt erection of the theocracy under *Moſes*'s adminiſtration. However, there were many ſupernatural interpoſitions, appointments, favours, corrections, &c. from *Joſhua* to *Malachi*, on account of their yet infant ſtate in reſpect of internal purity, whoſe tendency to improve both the body politic of the nation, and each individual, is ſufficiently evident. After *Malachi* they were entirely left to themſelves; their canon being completed, they were then only to hear and digeſt what *Moſes* and the prophets had delivered unto them; and by this means to prepare themſelves for the laſt and completeſt diſpenſation.

But, before we enter upon this, let us briefly conſider the ſtate of the gentile world, in the interval between *Abraham* and Chriſt, and what intimations the Old Teſtament gives

gives us of their being alſo under the care of Providence, and in a ſtate of moral diſcipline. They had then, according to this, Firſt, the traditions of patriarchal revelations. Secondly, All the nations in the neighbourhood of *Canaan* had frequent opportunities and motives to inform themſelves of the true religion. Thirdly, All thoſe who conquered them at any time could not but learn ſomething both from their ſubjection, and their deliverance afterwards. Fourthly, The captivities by *Salmaneſer* and *Nebuchadnezzar* carried the knowledge of the true God to many diſtant nations. Laſtly, The diſtractions of the *Jewiſh* ſtate during the cotemporary empires of *Syria* and *Egypt*, the riſe of the *Samaritan* religion, and the tranſlation of the Old Teſtament into *Greek*, conduced eminently to the ſame purpoſe. And as it is neceſſary in the preſent ſtate of things, for the exerciſe of various affections, and our moral improvement, that there ſhould be degrees and ſubordinations in common things, ſo it ſeems equally neceſſary, that it ſhould be ſo in religious matters: and thus the Gentiles may have had, in the interval between *Abraham* and Chriſt, all that ſuited their other circumſtances, all that they could have improved by internal voluntary purity, other things remaining the ſame, which is always ſuppoſed. And it is remarkable in the view of this propoſition, that we learn ſo much from the ſcriptures concerning the moral diſcipline which God afforded to the *Gentiles*.

When we come to the New Teſtament, the great deſign of all God's diſpenſations appears in a ſtill more conſpicuous manner. Here we ſee how Chriſt began to erect his ſpiritual kingdom, and the apoſtles extended it; we have the ſublimeſt doctrines, and pureſt precepts, for effecting it in ourſelves and others, and the ſtrongeſt aſſurances, that it will be effected at laſt, that this leaven will continue to operate till the whole lump be leavened. But, above all, it is remarkable, that the principal means for effecting this is by ſubmiſſion and ſufferance, not reſiſtance, and external violence. The preachers are to undergo ſhame, perſecution, and death, as the Lord of life and glory did before them. This is that *fooliſhneſs of God*, which is *wiſer than men*, and that *weakneſs of God*, which is *ſtronger than men*. Theſe means ſeem fooliſh and weak to the falſe wiſdom of this world. But if they be compared with the frame of our natures, and with the real conſtitution of things, they will appear to be perfectly ſuited to produce in all mankind that beſt of ends, the annihilation of ſelf, and worldly deſires, and the pure and perfect love of God, and of all his creatures, in and through him.

Setting aſide therefore the greatneſs of this end, and its ſuitableneſs to the divine goodneſs, ſetting aſide alſo the miracles which have concurred in it, I ſay that the coincidence of the hiſtories, precepts, promiſes, threatenings, and prophecies of the ſcriptures in this one point is an argument not only of their genuineneſs and truth, but of their divine authority. Had the writers been guided by their own ſpirits, and not by the ſupernatural influences of the ſpirit of truth, they could neither have opened to us the various diſpenſations of God tending to this one point, nor have purſued it themſelves,

themſelves, with ſuch entire ſteadineſs and uniformity, through ſo many different ages of the world.

The gradual opening of this deſign is an argument to the ſame purpoſe. Man's wiſdom, if it could have deformed ſuch a deſign, would have ruſhed forward upon it prematurely. At the ſame time we may obſerve, that this deſign is implied in the ſcriptures from the firſt, though not expreſſed ſo as to be then underſtood; which is another argument of their divine original.

Cor. From the reaſoning uſed under this propoſition we may be led to believe, that all the great events which happen in the world, have the ſame uſe as the diſpenſations, recorded in the ſcriptures, viz. that of being a courſe of moral diſcipline for nations and individuals, and of preparing the world for future diſpenſations. Thus the irruption of the barbarous nations into the *Roman* empire, the *Mahometan* impoſture, the corruptions of the chriſtian religion, the ignorance and darkneſs which reigned for ſome centuries during the groſſeſt of theſe corruptions, the reformation, reſtoration of letters, and the invention of printing, three great cotemporary events which ſucceeded the dark times, the riſe of the enthuſiaſtical ſects ſince the reformation, the vaſt increaſe and diffuſion of learning in the preſent times, the growing extenſiveneſs of commerce between various nations, the great prevalence of infidelity amongſt both *Jews* and *Chriſtians*, the diſperſion of *Jews* and *Jeſuits* into all known parts of the world, &c. &c. are all events, which, however miſchievous ſome of them may ſeem to human wiſdom, are *cæteris manentibus*, the moſt proper and effectual way of haſtening the kingdom of Chriſt, and the renovation of all things.

PROP. CXXVI.

Divine Communications, Miracles, and Prophecies, are agreeable to Natural Religion, and even ſeem neceſſary in the Infancy of the World.

Since God is a being of infinite juſtice, mercy, and bounty, according to natural religion, it is reaſonable to expect, that if the deficiencies of natural reaſon, or the inattention of mankind to the footſteps of his providence, were ſuch at any time, as that all the world were in danger of being loſt in ignorance, irreligion, and idolatry, God ſhould interpoſe by extraordinary inſtruction, by alarming inſtances of judgment and mercy, and by prophetical declarations of things to come, in order to teach men his power, his juſtice, and his goodneſs, by ſenſible proofs and manifeſtations. We muſt not ſay here, that God could not ſuffer this; but inquire from hiſtory, whether he has or no. Now I ſuppoſe it will eaſily be acknowledged, that this was the caſe with the gentile world in ancient times, and that the *Judaical* and *Chriſtian* inſtitutions have greatly checked irreligion and idolatry, and advanced true natural religion; which is a remarkable coincidence in favour of theſe inſtitutions, though all other evidences for them

them were ſet aſide. Neither muſt we ſay here, that ſince God permits groſs ignorance in ſome nations, the *Hottentots* for inſtance, even to this day, he might have permitted it in all mankind. Allow that we know ſo little of his unſearchable judgments, as not to be able to make any certain concluſion: yet ſurely it is much more agreeable to the forenamed attributes, and to the analogies of other things, that the bulk of mankind ſhould have ſuch a knowledge of God, as ſuits their intellectual faculties, and other circumſtances, and carries them forwards in moral improvement, than that all ſhould ſtand ſtill, or go backwards, or make leſs improvement in religion, than tallies with their improvements in other things; alſo that there ſhould be a ſubordination in religious advantages, rather than a perfect equality.

Natural religion alſo teaches us to conſider God as our governor, judge, and father. Now all theſe ſuperiors have two ways of adminiſtration, inſtruction and providence for the well-being of their inferiors, ordinary and extraordinary. It is therefore natural to expect upon great occaſions an extraordinary interpoſition by revelation, miracle, and phrophecy; and that eſpecially in that infancy of the world after the deluge, which both ſacred and profane hiſtory aſſure us of; inaſmuch as both ſtates and individuals require much more of the extraordinary interpoſition of governors and parents in their infancy, than afterwards: all which has a remarkable correſpondence with the hiſtory of revelation, as it is in fact. And the analogical preſumptions for miracles, in this and the laſt paragraph, ſeem at leaſt equal to any preſumption we have, or can have, in this our ſtate of ignorance of the whole of things, againſt them.

But there is another argument in favour of miraculous interpoſitions, which may be drawn from the foregoing theory of human nature. I take it for granted, that mankind have not been upon this earth from all eternity. Eternity neither ſuits an imperfect, finite race of beings, nor our habitation the earth. It cannot have revolved round the ſun, as it does now, from all eternity; it muſt have had ſuch changes made in it from its own fabric and principles, from the ſhocks of comets, &c. in infinite time, as would be inconſiſtent with our ſurvival. There was therefore a time when man was firſt placed upon the earth. In what ſtate was he then placed? An infant, with his mind a blank, void of ideas, as children now are born? He would periſh inſtantly, without a ſeries of miracles to preſerve, educate, and inſtruct him. Or if he be ſuppoſed an adult with a blank mind, *i. e.* without ideas, aſſociations, and the voluntary powers of walking, handling, ſpeaking, &c. the concluſion is the ſame; he muſt periſh alſo, unleſs conducted by a miraculous interpoſition and guardianſhip. He muſt therefore have ſo much of knowledge, and of voluntary and ſecondarily automatic powers, amongſt which ſpeech muſt be reckoned as a principal one, impreſſed upon him in the way of inſtinct, as would be neceſſary for his own preſervation, and that of his offspring; and this inſtinct is, to all intents and purpoſes, divine revelation, ſince he did not acquire it by natural means. It is alſo of the nature of prophecy; for it ſeems impoſſible for mankind to ſubſiſt upon the earth, as it now

is, without ſome foreknowledge, and the conſequent methods of providing for futurity, ſuch, for inſtance, as brutes have, or even greater, ſince man, unprovided with manual arts, is peculiarly expoſed to dangers, neceſſities, and hardſhips.

Let us next conſider, how the firſt men are to be provided with the knowledge of God, and a moral ſenſe: for it ſeems neceſſary, that they ſhould be poſſeſſed of ſome degree of theſe; elſe the ſenſual and ſelfiſh deſires would be ſo exorbitant, as to be inconſiſtent both with each man's own ſafety, and with that of his neighbour; as may be gathered from the accounts of ſavage nations, who yet are not entirely deſtitute of the knowledge of God, and the moral ſenſe. Now, to deduce the exiſtence and attributes of God, even in a very imperfect manner, from natural phænomena, requires, as it ſeems to me, far more knowledge and ratiocination, than men could have for many generations, from their natural powers; and that eſpecially if we ſuppoſe language not to be inſpired, but attained in a natural way. And it appears both from the foregoing account of the moral ſenſe, and from common obſervation, that this requires much time, care, and cultivation, beſides the previous knowledge of God, before it can be a match for the impetuoſity of natural deſires. We may conclude therefore, that the firſt men could not attain to that degree of the knowledge of God, and a moral ſenſe, which was neceſſary for them, without divine inſpiration.

There are ſeveral particulars in the *Moſaic* account of the creation, fall, and circumſtances of the ancient world, which tally remarkably with the method of reaſoning uſed here. Thus, man is at firſt placed in a paradiſe, where there was nothing noxious, and conſequently where he would need leſs miraculous interpoſition in order to preſerve him. He lives upon the fruits of the earth, which want no previous arts of preparing them, and which would ſtrike him by their ſmells, and, after an inſtance or two, incite him to pluck and taſte: whereas animal diet, beſides its inconſiſtency with a ſtate of pure innocence and happineſs, requires art and preparation neceſſarily. There is only one man, and one woman, created, that ſo the occaſions for exerting the ſocial affections may not offer themſelves in any great degree, before theſe affections are generated; but, on the contrary, the affections may grow naturally, as it were, out of the occaſions. The nakedneſs, and want of ſhame, in our firſt parents, are concurring evidences of the abſence of art, acquired affections, evil, &c. *i. e.* of a paradiſaical ſtate. In this ſtate they learnt to give names to the animal world, perhaps from the automatic and ſemivoluntary exertions of the organs of ſpeech, which the ſight of the creatures, or the ſound of their ſeveral cries, would excite; having probably a ſufficient ſtock of language for communication with God and for converſing with each other about their daily food, and other neceſſary things, given them by immediate inſtinct or inſpiration. And thus they would be initiated, by naming the animals, into the practice of inventing, learning, and applying words. For the ſame reaſons, we may ſuppoſe, that they learnt many other things, and particularly the habit of learning, during their abode in paradiſe. Nay, it may perhaps be, that this growth

growth of acquired knowledge, with the pleaſantneſs of it, might put them upon learning evil as well as good, and excite the forbidden curioſity. After the fall, we find God providing them with clothes, *Cain* baniſhed from the preſence of God, an argument that others were permitted to have recourſe to this preſence to aſk counſel, &c. his poſterity inventing arts for themſelves, *Enoch* and *Noah* walking with God before the flood, and *Abraham* afterwards; all the antediluvian patriarchs long-lived, the poſtdiluvian long-lived alſo for ſome generations; amongſt other reaſons, that they might inſtruct poſterity in religious and other important truths; and the divine interpoſitions continuing through the whole antediluvian world, and gradually withdrawn in the poſtdiluvian. And it ſeems to me, to ſay the leaſt, a very difficult thing for any man, even at this day, to invent a more probable account of the firſt peopling of this earth, than that which *Moſes* has given us.

PROP. CXXVII.

The Objection made againſt the Miracles recorded in the Scriptures, from their being contrary to the Courſe of Nature, is of little or no Force.

It is alleged here by the objectors, that the courſe of nature is fixed and immutable; and that this is evinced by the concurrent teſtimony of all mankind in all ages; and conſequently that the teſtimony of a few perſons, who affirm the contrary, cannot be admitted; but is, *ipſo facto*, invalidated by its oppoſing general, or even univerſal experience. Now to this I anſwer,

Firſt, That we do not, by admitting the teſtimony of mankind concerning the deſcent of heavy bodies upon the ſurface of our earth, the common effects of heat and cold, &c. ſuppoſe that this invalidates the teſtimony of thoſe who declare they have met with contrary appearances in certain caſes. Each party teſtifies what they have ſeen; and why may not the evidence of both be true? It does not follow, becauſe a thing has happened a thouſand, or ten thouſand times, that it never has failed, nor ever can fail. Nothing is more common or conſtant, than the effect of gravity in making all bodies upon the ſurface of our earth tend to its centre. Yet the rare extraordinary influences of magnetiſm and electricity can ſuſpend this tendency. Now, before magnetiſm and electricity were diſcovered, and verified by a variety of concurrent facts, there would have been as much reaſon to diſallow the evidence of their particular effects atteſted by eye-witneſſes, as there is now to diſallow the particular miracles recorded in the ſcriptures; and yet we ſee that ſuch a diſallowance would have been a haſty concluſion, would have been quite contrary to the true nature of things. And, in fact, whatever may be the caſe of a few perſons, and particularly of thoſe, who think that they have an intereſt in diſproving revealed religion, the generality of mankind, learned and unlearned, philoſophical and vulgar, in all ages, have had no ſuch diſpoſition to reject a thing well atteſted by witneſſes of credit, becauſe it was contrary to the general,

or even univerſal, tenor of former obſervations. Now it is evident to conſidering perſons, eſpecially if they reflect upon the foregoing hiſtory of aſſociation, that the diſpoſitions to aſſent and diſſent are generated in the human mind from the ſum total of the influences, which particular obſervations have had upon it. It follows therefore, ſince the bulk of mankind, of all ranks and orders, have been diſpoſed to receive facts the moſt ſurprizing, and contrary to the general tenor, upon their being atteſted in a certain limited degree, that extraordinary facts are not, in a certain way of conſidering the thing, out of the tenor of nature, but agreeable to it; that here therefore, as well as in common facts, the ſtreſs is to be laid upon the credibility of the witneſſes; and that to do otherwiſe is an argument either of ſome great ſingularity of mind, or of an undue biaſs.

Secondly, If it ſhould be alleged by the objectors, that they do not mean, by the courſe of nature, that tenor of common obſervations which occurred to the firſt rude ages of the world, or even that tenor which is uſually called ſo at preſent; but thoſe more general laws of matter and motion, to which all the various phænomena of the world, even thoſe which are apparently moſt contrary to one another, may be reduced; and that it is probable, that univerſal experience would concur to ſupport the true laws of nature of this kind, were mankind ſufficiently induſtrious and accurate in bringing together the facts, and drawing the concluſions from them; in which caſe, any deviations from the tenor of nature, thus ſupported and explained, would be far more improbable, than according to the ſuppoſition of the foregoing paragraph; we anſwer, that this objection is a mere conjecture. Since we do not yet know what theſe true laws of matter and motion are, we cannot preſume to ſay whether all phænomena are reducible to them, or not. Modern philoſophers have indeed made great advances in natural knowledge; however, we are ſtill in our infant ſtate, in reſpect of it, as much as former ages, if the whole of things be taken into conſideration. And this objection allows and ſuppoſes it to be ſo. Since therefore it was the proper method for former ages, in order to make advances in real knowledge, to abide by the award of credible teſtimonies, however contrary theſe teſtimonies might appear to their then notions and analogies, ſo this is alſo the proper method for us.

If indeed we put the courſe of nature for that ſeries of events, which follow each other in the order of cauſe and effect by the divine appointment, this would be an accurate and philoſophical way of ſpeaking; but then we muſt at once acknowledge, that we are ſo ignorant of what may be the divine purpoſes and appointments, of ſecret cauſes, and of the correſponding variety of events, that we can only appeal to the facts, to credible relations of what actually has been, in order to know what is agreeable to the courſe of nature thus explained. The ſcripture miracles may not be at all contrary to its fixedneſs and immutability. Nor can any objection lie againſt them, if we conſider things in this light, from the preſent notions of philoſophical men, *i. e.* from the courſe of nature, underſtood in a popular ſenſe; ſince this falls ſo ſhort of the true courſe of nature

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as here defined, *i. e.* as admitting the inſtrumentality of beings ſuperior to us, men divinely inſpired, good angels, evil ſpirits, and many other influences, of which our preſent philoſophy can take no cognizance.

With reſpect to moral analogy, the caſe is ſomewhat different. If the moral attributes of God, and the general rules of his providence, be ſuppoſed to be eſtabliſhed upon a ſure footing, then a ſeries of events, which ſhould be contrary to theſe, would have a ſtrong preſumption againſt them. And yet it becomes us to be very diffident here alſo. God is infinite, and we finite: we may therefore, from ſeeing only a ſmall portion, judge what we ſee to be different from what it is. However, revealed religion has no occaſion in general for any ſuch apology. Natural and revealed religion, the word and works of God, are in all principal things moſt wonderfully analogous; as has been ſufficiently ſhewn by the advocates for revealed religion, and moſt eſpecially by biſhop *Butler* in his analogy. As far therefore as moral analogy carries weight, there is poſitive evidence for the ſcripture miracles. And our comprehenſion of natural analogy is ſo imperfect as ſcarce to afford any preſumption againſt them; but leaves the evidence in their favour, of nearly the ſame ſtrength as it would have had for other facts.

Thirdly, Let it be obſerved, that the evidences for the ſcripture miracles are ſo numerous, and, in other reſpects, ſo ſtrong, as to be nearly equal to any evidences that can be brought for the moſt common facts. For it is very manifeſt, as has been obſerved before, that a great number of credible evidences make a ſum total, that is equal to unity, or abſolute certainty, as this has been conſidered in the foregoing part of this work, nearer than by any perceptible difference: and the greateſt number can never arrive quite to unity. The evidence therefore for common facts cannot exceed that for the ſcripture miracles by more than an imperceptible difference, if we eſtimate evidences according to the trueſt and moſt accurate manner. Hence the nearly equal evidences for each muſt eſtabliſh each in nearly an equal degree, unleſs we ſuppoſe either ſome ſuch inconſiſtency between them, as that, common facts being allowed, the ſcripture miracles muſt be abſolutely rejected, or that there is ſome evidence againſt the ſcripture miracles, which may be put in competition with that for them; neither of which things can be ſaid with any colour of reaſon.

Fourthly, This whole matter may be put in another, and perhaps a more natural, as well as a more philoſophical light; and that eſpecially if the foregoing account of the mind be allowed. Aſſociation, *i. e.* analogy, perfect and imperfect, is the only foundation upon which we in fact do, or can, or ought to aſſent; and conſequently a diſſonance from analogy, or a repugnancy thereto, is a neceſſary foundation for diſſent. Now it happens ſometimes, that the ſame thing is ſupported and impugned by different analogies; or, if we put repugnance to analogy as equivalent to miracle, that both a fact and its non-exiſtence imply a miracle; or, ſince this cannot be, that that ſide alone, which is repugnant to the moſt and the moſt perfect analogies, is miraculous,

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and therefore incredible. Let us weigh the ſcripture miracles in this ſcale. Now the progreſs of the human mind, as may be ſeen by all the inquiries into it, and particularly by the hiſtory of aſſociation, is a thing of a determinate nature; a man's thoughts, words, and actions, are all generated by ſomething previous; there is an eſtabliſhed courſe for theſe things, an analogy, of which every man is a judge from what he feels in himſelf, and ſees in others: and to ſuppoſe any number of men in determinate circumſtances to vary from this general tenor of human nature in like circumſtances, is a miracle, and may be made a miracle of any magnitude, *i. e.* incredible to any degree, by increaſing the number and magnitude of the deviations. It is therefore a miracle in the human mind, as great as any can be conceived in the human body, to ſuppoſe that infinite multitudes of chriſtians, *Jews*, and heathens in the primitive times, ſhould have borne ſuch unqueſtionable teſtimony, ſome expreſsly, others by indirect circumſtances, as hiſtory informs us they did, to the miracles ſaid to be performed by Chriſt, and his apoſtles, upon the human body, unleſs they were really performed. In like manner, the reception which the miracles recorded in the Old Teſtament met with, is a miracle, unleſs thoſe miracles were true. Thus alſo the very exiſtence of the books of the Old and New Teſtaments, of the *Jewiſh* and Chriſtian religions, &c. &c. are miracles, as is abundantly ſhewn by the advocates for chriſtianity, unleſs we allow the ſcripture miracles. Here then a man muſt either deny all analogy and aſſociation, and become an abſolute ſceptic, or acknowledge that very ſtrong analogies may ſometimes be violated, *i. e.* he muſt have recourſe to ſomething miraculous, to ſomething ſupernatural, according to his narrow views. The next queſtion then will be, which of the two oppoſite miracles will agree beſt with all his other notions; whether it be more analogous to the nature of God, providence, the allowed hiſtory of the world, the known progreſs of man in this life, &c. &c. to ſuppoſe that God imparted to certain ſelect perſons, of eminent piety, the power of working miracles; or to ſuppoſe that he confounded the underſtandings, affections, and whole train of aſſociations, of entire nations, ſo as that men, who, in all other things, ſeem to have been conducted in a manner like all other men, ſhould, in reſpect of the hiſtory of Chriſt, the prophets and apoſtles, act in a manner repugnant to all our ideas and experiences. Now, as this laſt ſuppoſition cannot be maintained at all upon the footing of deiſm, ſo it would be but juſt as probable as the firſt, even though the objector ſhould deny the poſſibility of the being of a God. For the leaſt preſumption, that there may be a being of immenſe or infinite power, knowledge, and goodneſs, immediately turns the ſcale in favour of the firſt ſuppoſition.

Fifthly, It is to be conſidered, that the evidences for the ſcripture miracles are many, and moſt of them independent upon one another, whereas the diſpenſation itſelf is a connected thing, and the miracles remarkably related to each other. If therefore only ſo much as one miracle could be proved to have been really wrought in confirmation

confirmation of the *Jewiſh* or Chriſtian revelations, there would be leſs objection to the ſuppoſition of a ſecond; and, if this be proved, ſtill leſs to that of a third, &c. till at laſt the reluctance to receive them would quite vaniſh (which indeed appears to have been the caſe in the latter part of the primitive times, when the inconteſtable evidences for the chriſtian miracles had been ſo much examined and conſidered, as quite to overcome this reluctance; and it ſeems difficult to account for the credulity in receiving falſe miracles, which then appeared, but upon ſuppoſition, that many true ones had been wrought). But it is not ſo with the evidences. The greateſt part of theſe have ſo little dependence on the reſt, as may be ſeen even from this chapter, that they muſt be ſet aſide ſeparately by the objector. Here it ought to be added, that the objectors have ſcarce ever attempted to ſet aſide any part of the evidence, and never ſucceeded in ſuch an attempt; which is of itſelf a ſtrong argument in favour of the ſcriptures, ſince this is plainly the moſt natural and eaſy way of diſproving a thing that is falſe. It ought alſo to be obſerved here, that the accompliſhment of prophecy, by implying a miracle, does in like manner overbear the reluctance to receive miracles. So that if any conſiderable events, which have already happened in the world, can be proved to have been foretold in ſcripture in a manner exceeding chance, and human foreſight, the objection to miracles, conſidered in this propoſition, falls to the ground at once.

Sixthly, If any one ſhould affirm or think, as ſome perſons ſeem to do, that a miracle is impoſſible, let him conſider, that this is denying God's omnipotence, and even maintaining, that man is the ſupreme agent in the univerſe.

PROP. CXXVIII.

The hiſtorical Evidences for the Genuineneſs, Truth, and Divine Authority of the Scriptures do not grow leſs from Age to Age; but, on the Contrary, it may rather be preſumed, that they increaſe.

It is ſometimes alleged as an indirect objection to the chriſtian religion, that the evidence for facts done in former times, and at remote places, decreaſes with the diſtance of time and place; and conſequently that a time may come hereafter, when the evidence for the chriſtian religion will be ſo inconſiderable as not to claim our aſſent, even allowing that it does ſo now. To this I anſwer,

Firſt, That printing has ſo far ſecured all conſiderable monuments of antiquity, as that no ordinary calamities of wars, diſſolutions of governments, &c. can deſtroy any material evidence now in being, or render it leſs probable, in any diſcernible degree, to thoſe who ſhall live five hundred or a thouſand years hence.

Secondly, That ſo many new evidences and coincidences have been diſcovered in favour of the *Jewiſh* and *Chriſtian* hiſtories, ſince the three great concurring events of printing, the reformation of religion in theſe weſtern parts, and the reſtoration of letters,

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as, in ſome meaſure, to make up for the evidences loſt in the preceding times; and, ſince this improvement of the hiſtorical evidences is likely to continue, there is great reaſon to hope, that they will grow every day more and more irreſiſtible to all candid, ſerious inquirers.

One might alſo allege, if it were needful, that *our* proper buſineſs is to weigh carefully the evidence which appears at preſent, leaving the care of future ages to Providence; that the prophetical evidences are manifeſtly of an increaſing nature, and ſo may compenſate for a decreaſe in the hiſtorical ones; and that though, in a groſs way of ſpeaking, the evidences for facts diſtant in time and place are weakened by this diſtance, yet they are not weakened in an exact proportion in any caſe, nor in any proportion in all caſes. No one can think a fact relating to the *Turkiſh* empire leſs probable at *London* than at *Paris*, or at fifty years diſtance than at forty.

PROP. CXXIX.

The Prophecies delivered in the Scriptures prove the Divine Authority of the Scriptures, even previouſly to the Conſideration of the Genuineneſs of theſe Prophecies; but much more, if that be allowed.

In order to evince this propoſition, I will diſtinguiſh the prophecies into four kinds, and ſhew in what manner it holds in reſpect of each kind.

There are then contained in the ſcriptures,

Firſt, Prophecies that relate to the ſtate of the nations which bordered upon the land of *Canaan*.

Secondly, Thoſe that relate to the political ſtate of the *Iſraelites* and *Jews* in all ages.

Thirdly, The types and prophecies that relate to the office, time of appearance, birth, life, death, reſurrection, and aſcenſion of the promiſed *Meſſiah*, or Chriſt.

Fourthly, The prophecies that relate to the ſtate of the chriſtian church, eſpecially in the latter times, and to the ſecond coming of Chriſt.

I begin with the prophecies of the firſt kind, or thoſe which relate to the ſtate of *Amalek*, *Edom*, *Moab*, *Ammon*, *Tyre*, *Syria*, *Egypt*, *Nineveh*, *Babylon*, and the four great ſucceſſive empires of the *Babylonians*, *Perſians*, *Greeks*, and *Romans*. Now here I obſerve, Firſt That if we admit both the genuineneſs of theſe prophecies and the truth of the common hiſtory of the ſcriptures, the very remarkable coincidence of the facts with the prophecies will put their divine authority out of all doubt; as I ſuppoſe every reader will acknowledge, upon recollecting the many particular prophecies of this kind, with their accompliſhments, which occur in the Old Teſtament. Secondly, If we allow only the genuineneſs of theſe prophecies, ſo great a part of them may be verified by the remains of ancient pagan hiſtory, as to eſtabliſh the divine authority of that part. Thus, if *Daniel*'s prophecies of the image, and four beaſts, were written by him

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in the time of the *Babylonian* empire, if the prophecies concerning the fall of *Nineveh*, *Babylon*, *Tyre*, &c. be genuine, &c. even profane hiſtory will ſhew, that more than human foreſight was concerned in the delivery of them. Thirdly, That ſuch of theſe prophetic events as remain to this day, or were evidently poſterior to the delivery of the prophecies, prove their divine authority even antecedently to the conſideration of their genuineneſs, as is affirmed in the former part of the propoſition. Of this kind are the perpetual ſlavery of *Egypt*; the perpetual deſolation of *Tyre* and *Babylon*; the wild, unconquered ſtate of the *Iſhmaelites*; the great power and ſtrength of the *Roman* empire beyond thoſe of the three foregoing empires; its diviſion into ten kingdoms; its not being ſubdued by any other, as the three foregoing were; the riſe of the *Mahometan* religion, and *Saracenic* empire; the limited continuance of this empire; and the riſe and progreſs of the empire of the *Turks*. To theſe we may add the tranſactions that paſſed between the cotemporary kingdoms of *Syria* and *Egypt*, propheſied of in the eleventh chapter of *Daniel*. For, ſince theſe prophecies reach down to the times of *Antiochus Epiphanes*, and the beginning ſubjection of theſe kingdoms to the *Roman* power, they cannot but have been delivered prior to the events, as may appear both from the conſideration of the Septuagint tranſlation of the book of *Daniel*, and the extinction of the Biblical *Hebrew* as a living language before that time, even though the book of *Daniel* ſhould not be conſidered as a genuine book; for which ſuſpicion there is, however, no foundation. Laſtly, we may remark, that theſe, and indeed all the other prophecies, have the ſame marks of genuineneſs as the reſt of the ſcriptures, or as any other books; that they cannot be ſeparated from the context without the utmoſt violence, ſo that, if this be allowed to be genuine, thoſe muſt alſo; that hiſtory and chronology were in ſo uncertain a ſtate in ancient times, that the prophecies concerning foreign countries could not have been adapted to the facts, even after they had happened, with ſo much exactneſs as modern inquirers have ſhewn the ſcripture prophecies to be, by a learned nation, and much leſs by the *Jews*, who were remarkably ignorant of what paſſed in foreign countries; and that thoſe prophecies, which are delivered in the manner of dream and viſion, have a very ſtrong internal evidence for their genuineneſs, taken from the nature of dreams, as this is explained in the foregoing part of this work.

I proceed, in the ſecond place, to ſhew how the prophecies, that relate to the political ſtate of the *Jews*, prove the divine authority of the ſcriptures. And here, paſſing by many prophecies of inferior note, and of a ſubordinate nature, we may confine ourſelves to the promiſe, or prophecy, of the land of *Canaan*, given to *Abraham*, *Iſaac*, and *Jacob*; to the prophecies concerning the captivity of the ten tribes, and the *Babyloniſh* captivity of the two tribes, with their return after ſeventy years; and to thoſe concerning the much greater captivity and deſolation predicted to fall upon this choſen people in the twenty-eighth chapter of *Deuteronomy*, in various places of the prophecies, and by Chriſt and his apoſtles in the New Teſtament. There was no natural probability,

at the time when theſe prophecies were delivered, that any of theſe events ſhould happen in the manner in which they were predicted, and have accordingly happened; but, in ſome, the utmoſt improbability: ſo that it muſt appear to every candid intelligent inquirer, that nothing leſs than ſupernatural knowledge could have enabled thoſe who delivered theſe predictions, to make them. The divine authority, therefore, of the books which contain theſe predictions, is unqueſtionable, provided we allow them to be genuine.

Now, beſides the forementioned evidences of this, theſe prophecies have ſome peculiar ones attending them. Thus the mere departure of the *Iſraelites* out of *Egypt*, in order to go to the land of *Canaan*, their burying *Jacob* in *Canaan*, and carrying *Joſeph*'s bones with them, plainly imply that the promiſe of this land had been given to their anceſtors. Thus alſo the prophecies relating to the captivities of *Iſrael* and *Judah*, and to their reſtorations, make ſo large a part of the old prophets, that, if they be not genuine, the whole books muſt be forged; and the genuineneſs of thoſe in the New Teſtament cannot but be allowed by all.

I come now, in the third place, to ſpeak of the types and prophecies that relate to Chriſt, the time of his appearance, his offices, birth, life, death, reſurrection, and aſcenſion. Many of theſe are applied to him by himſelf, and by the authors of the books of the New Teſtament; but there are alſo many others, whoſe diſcovery and application are left to the ſagacity and induſtry of chriſtians in all ages. This ſeems to be a field of great extent, and the evidence ariſing from it of an increaſing nature. It is probable, that the chriſtians of the firſt ages were acquainted with ſo many more circumſtances relating to the life, death, &c. of Chriſt, as on this account to be able to apply a larger number of types and prophecies to him than we can. But then this may perhaps be compenſated to us by the daily opening of the ſcriptures, and our growing knowledge in the typical and prophetical nature of them. What is already diſcovered of this kind, ſeems no ways poſſible to be accounted for, but from the ſuppoſition, that God, by his power and foreknowledge, ſo ordered the actions, hiſtory, ceremonies, &c. of the *Patriarchs* and *Jews*, and the language of the prophets, as to make them correſpond with Chriſt, his offices, actions, and ſufferings. If any one doubts of this, let him attempt to apply the types and prophecies to any other perſon. I will juſt mention four claſſes, into which theſe types and prophecies may be diſtinguiſhed, and under each of them a few remarkable inſtances. There are then,

Firſt, Prophecies which evidently relate to Chriſt, and either to him alone, or to others in an inferior degree only. Such are that of *Jacob* concerning *Shiloh*, of *Moſes* concerning a great prophet and lawgiver that ſhould come after him, of *Iſaiah* in his fifty-ſecond and fifty-third chapters of *Daniel*, concerning the *Meſſiah*, many in almoſt all the prophets concerning a great prince, a prince of the houſe of *David*, &c. who ſhould make a new covenant with his people, &c. &c.

Secondly,

Secondly, Typical circumſtances in the lives of eminent perſons, as of *Iſaac*, *Joſeph*, *Joſhua*, *David*, *Solomon*, *Jonah*; and in the common hiſtory of the *Jewiſh* people, as its being called out of *Egypt*.

Thirdly, Typical ceremonies in the *Jewiſh* worſhip, as their ſacrifices in general, thoſe of the paſſover and day of expiation in particular, &c. To this head we may alſo refer the typical nature of the high prieſthood, and of the offices of king, prieſt and prophet, amongſt the *Jews*, &c.

Fourthly, The apparently incidental mention of many circumſtances in theſe things, which yet agree ſo exactly, and in a way ſo much above chance, with Chriſt, as to make it evident, that they were originally intended to be applied to him. The not breaking a bone of the Paſchal Lamb; the mention of renting the garment, and caſting lots upon the veſture, by *David*; of offering gall and vineger, of looking on him whom they had pierced, of the third day upon numerous occaſions, &c. are circumſtances of this kind.

Now, theſe types and prophecies afford nearly the ſame evidence, whether we conſider the books of the Old Teſtament as genuine, or no. For no one calls in queſtion their being extant as we now have them, ſmall immaterial variations excepted, before the time of Chriſt's appearance. Many of them do indeed require the common hiſtory of the New Teſtament to be allowed as true. But there are ſome, thoſe, for inſtance, which relate to the humiliation and death of Chriſt, and the ſpirituality of his office, the proofs of whoſe accompliſhment are ſufficiently evident to the whole world, even independently of this.

The fourth branch of the prophetical evidences are thoſe which relate to the chriſtian church. Here the three following particulars deſerve attentive conſideration.

Firſt, The predictions concerning a new and pure religion, which was to be ſet up by the coming of the promiſed *Meſſiah*.

Secondly, A great and general corruption of this religion, which was to follow in after-times.

Thirdly, The recovery of the chriſtian church from this corruption, by great tribulations; and the final eſtabliſhment of true and pure religion, called *the kingdom of righteouſneſs*, *of the ſaints*, *the new Jeruſalem*, *&c.*

The predictions of the firſt and third kinds abound every where in the old prophets, in the diſcourſes of Chriſt, and in the writings of the apoſtles. Thoſe of the ſecond kind are chiefly remarkable in *Daniel*, the *Revelation*, and the epiſtles of St. *Paul*, St. *Peter*, St. *John*, and St. *Jude*. In how ſurprizing a manner the events of the firſt and ſecond kind have anſwered to the predictions, cannot be unknown to any inquiſitive ſerious perſon, in any chriſtian country. At the ſame time it is evident, that the predictions of theſe things could have no foundation in probable conjectures when they were given. The events of the third claſs have not yet received their accompliſhment; but there have been for ſome centuries paſt, and are ſtill, perpetual advances and pre-

parations made for them; and it now ſeems unreaſonable to doubt of the natural probability of their accompliſhment, unleſs we doubt at the ſame time of the truth of the religion itſelf. If it be true, it muſt, upon more diligent and impartial examination, both purify itſelf, and overcome all oppoſition.

And it is remarkably agreeable to the tenor of Providence in other things, that that accompliſhment of prophecy, which will hereafter evidence the truth of the chriſtian religion in the moſt illuſtrious manner, ſhould be effected by preſent evidences of a leſs illuſtrious nature.

Let me add here, that many of the pſalms are peculiarly applicable to the reſtoration and converſion of the *Jews*, and to the final prevalence and eſtabliſhment of the chriſtian church, *i. e.* to the events of the third claſs.

PROP. CXXX.

The Degree of Obſcurity which is found in the Prophecies of the Scriptures, is not ſo great as to invalidate the foregoing Evidences for their divine Authority; but, on the Contrary, is itſelf an indirect Teſtimony in their Favour.

In order to prove this propoſition, I obſerve,

Firſt, That there are a ſufficient number of prophecies, whoſe interpretation is certain, clear, and preciſe, to ſhew that their agreement with the events predicted is far above the powers of chance, or human foreſight. But for the proof of this point, which takes in a great compaſs of literature, I muſt refer to the authors who have treated it in detail. And as thoſe who have examined this point with accuracy and impartiality, do, as I preſume, univerſally agree to the poſition here laid down, ſo thoſe who have not done ſo, can have no pretence for aſſerting the contrary; this being an hiſtorical matter, which is to be determined as others of a like kind, viz. by the hiſtorical evidences. The reader may, however, form ſome judgment, in the groſs, even from the few inſtances, which are alleged under the laſt propoſition.

Secondly, That, even in the types and prophecies where interpreters differ from each other, the differences are often ſo inconſiderable, and the agreements ſo general, or elſe the prophecy ſo ſuited to the ſeveral events, to which it is applied by different interpreters, as to exclude both chance, and human foreſight, *i. e.* to infer a divine communication. This point requires alſo a careful and candid examination, and then, I think, cannot but be determined in the affirmative; eſpecially when the very great number of types and prophecies is taken into conſideration. Fitneſs in numerous inſtances is always an evidence of deſign; this is a method of reaſoning allowed, explicitly or implicitly, by all. And though the fitneſs may not be perfectly evident or preciſe in all, yet, if it be general, and the inſtances very numerous, the evidence of deſign, ariſing from it, may amount to any degree, and fall ſhort of certainty by an imperceptible

tible difference only. And indeed it is upon theſe principles alone, that we prove the divine power, knowledge, and goodneſs, from the harmonies, and mutual fitneſſes, of viſible things, and from final cauſes, inaſmuch as theſe harmonies and fitneſſes are preciſely made out only in a few inſtances, if compared to thoſe in which we ſee no more than general harmonies, with particular ſubordinate difficulties, and apparent incongruities.

That the reader may ſee in a ſtronger light, how fully the fitneſſes, conſidered in the two foregoing paragraphs, exclude chance, and infer deſign, let him try to apply the types and prophecies of the four claſſes before-mentioned to other perſons and events beſides thoſe, to which chriſtian interpreters have applied them; and eſpecially let him conſider the types and prophecies relating to Chriſt. If deſign be excluded, theſe ought to be equally, or nearly ſo, applicable to other perſons and events; which yet, I think, no ſerious conſiderate perſon can affirm. Now, if chance be once excluded, and the neceſſity of having recourſe to deſign admitted, we ſhall be inſtantly compelled to acknowledge a contrivance greater than human, from the long diſtances of time intervening between the prophecy and the event, with other ſuch like reaſons.

Thirdly, I obſerve that thoſe types and prophecies, whoſe interpretation is ſo obſcure, that interpreters have not been able to diſcover any probable application, cannot any ways invalidate the evidence ariſing from the reſt. They are analogous to thoſe parts of the works of nature, whoſe uſes, and ſubſerviency to the reſt are not yet underſtood. And as no one calls in queſtion the evidences of deſign, which appear in many parts of the human body, becauſe the uſes of others are not yet known; ſo the interpretations of prophecy, which are clearly or probably made out, remain the ſame evidence of deſign, notwithſtanding that unſurmountable difficulties may hitherto attend many other parts of the prophetic writings.

Fourthly, It is predicted in the prophecies, that in the latter times great multitudes will be converted to the chriſtian faith; whereas thoſe who preach or propheſy, during the great apoſtaſy, ſhall be able to do this only in an obſcure, imperfect manner, and convert but few. Now the paſt and preſent obſcurity of prophecy agrees remarkably with this prediction; and the opening, which is already made, ſince the revival of letters, in applying the prophecies to the events, ſeems to preſage, that the latter times are now approaching; and that by the more full diſcovery of the true meaning of the prophetic writings, and of their aptneſs to ſignify the events predicted, there will be ſuch an acceſſion of evidence to the divine authority of the ſcriptures, as none but the wilfully ignorant, the profligate, and the obdurate, can withſtand. It is therefore a confirmation of the prophetic writings, that, by the obſcurity of one part of them, a way ſhould be prepared for effecting that glorious converſion of all nations, which is predicted in others, in the time and manner in which it is predicted.

PROP. CXXXI.

It is no Objection to the foregoing Evidences taken from the Types and Prophecies, that they have double, or even manifold, Uſes and Applications; but rather a Confirmation of them.

For the foregoing evidences all reſt upon this foundation, viz. that there is an aptneſs in the types and prophecies to prefigure the events, greater than can be ſuppoſed to reſult from chance, or human foreſight. When this is evidently made out from the great number of the types and prophecies, and the degree of clearneſs and preciſeneſs of each, the ſhewing afterwards, that theſe have other uſes and applications, will rather prove the divine interpoſition, than exclude it. All the works of God, the parts of a human body, ſyſtems of minerals, plants, and animals, elementary bodies, planets, fixed ſtars, &c. have various uſes and ſubſerviencies, in reſpect of each other; and, if the ſcriptures be the word of God, analogy would lead one to expect ſomething correſponding hereto in them. When men form deſigns, they are indeed obliged to have one thing principally in view, and to ſacrifice ſubordinate matters to principal ones; but we muſt not carry this prejudice, taken from the narrow limits of our power and knowledge, to him who is infinite in them. All his ends centre in the ſame point, and are carried to their utmoſt perfection by one and the ſame means. Thoſe laws, ceremonies, and incidents, which beſt ſuited the *Jewiſh* ſtate, and the ſeveral individuals of it, were alſo moſt apt to prefigure the promiſed Meſſiah, and the ſtate of the chriſtian church, according to the perfect plan of theſe things, which, in our way of ſpeaking, exiſted in the divine mind from all eternity; juſt as that magnitude, ſituation, &c. of our earth, which beſt ſuits its preſent inhabitants, is alſo beſt ſuited to all the changes which it muſt hereafter undergo, and to all the inhabitants of other planets, if there be any ſuch, to whom its influence extends.

The following inſtance may perhaps make this matter more clearly underſtood. Suppoſe a perſon to have ten numbers, and as many lines, preſented to his view; and to find by menſuration, that the ten numbers expreſſed the lengths of the ten lines reſpectively. This would make it evident, that they were intended to do ſo. Nor would it alter the caſe, and prove that the agreement between the numbers and lines aroſe, without deſign, and by chance, as we expreſs it, to allege that theſe numbers had ſome other relations; that, for inſtance, they proceeded in arithmetical or geometrical progreſſion, were the ſquares or cubes of other numbers, &c. On the contrary, any ſuch remarkable property would rather increaſe than diminiſh the evidence of deſign in the agreement between the numbers and lines. However, the chief thing to be inquired into would plainly be, whether the agreement be too great to be accounted for by chance. If it be, deſign muſt be admitted.

PROP. CXXXII.

The Application of the Types and Prophecies of the Old Teſtament by the Writers of the New does not weaken the Authority of theſe Writers, but rather confirm it.

For the objections, which have been made to the writers of the New Teſtament on this head, have been grounded principally upon a ſuppoſition, that when an obvious literal ſenſe of a paſſage, or a manifeſt uſe of a ceremony, ſuited to the then preſent times, are diſcovered, all others are excluded, ſo as to become miſapplications. But this has been ſhewn in the laſt propoſition to be a prejudice ariſing from the narrowneſs of our faculties and abilities. Whence it follows, that, if the ſcripture types and prophecies be remarkably ſuited to different things, which is a point that is abundantly proved by learned men, they cannot but, in their original deſign, have various ſenſes and uſes. And it is ſome confirmation of the divine authority of the writers of the New Teſtament, that they write agreeably to this original deſign of God.

It may perhaps afford ſome ſatisfaction to the reader to make ſome conjectures concerning the light in which the types and prophecies, which have double ſenſes, would appear firſt to the ancient *Jews*, and then to thoſe who lived in the time of our Saviour. From hence we may judge in what light it is reaſonable they ſhould be taken by us.

Let our inſtance be the ſecond pſalm, which we are to ſuppoſe written by *David* himſelf, or, at leaſt, in the time of his reign. It is evident, that there are ſo many things in this pſalm peculiarly applicable to *David*'s aſcent to the throne by God's ſpecial appointment, to the oppoſition which he met with both in his own nation, and from the neighbouring ones, and to his victories over all his oppoſers through the favour of God, that the *Jews* of that time could not but conſider this pſalm as relating to *David*. Nay, one can ſcarce doubt, but the Pſalmiſt himſelf, whether he ſeemed to himſelf to compoſe it from his own proper fund, or to have it dictated immediately by the ſpirit of God, would have *David* principally in view. At the ſame time it is evident, that there are ſome paſſages, particularly the laſt, *Bleſſed are all they that put their truſt in him*, i. e. in the Son, which it would be impious, eſpecially for an *Iſraelite*, to apply to *David*, and which therefore no allowance for the ſublimity of the eaſtern poetry could make applicable. It may be ſuppoſed therefore, that many, or moſt, conſidered ſuch paſſages as having an obſcurity in them, into which they could no ways penetrate; whereas a few perhaps, who were peculiarly enlightened by God, and who meditated day and night upon the promiſes made to their anceſtors, particularly upon thoſe to *Abraham*, would preſume or conjecture, that a future perſon of a much higher rank than *David*, was prefigured thereby. And the caſe would be the ſame in regard to many other pſalms: they would appear to the perſons of the then preſent times both

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to reſpect the then preſent occurrences, and alſo to intimate ſome future more glorious ones; and would mutually ſupport this latter interpretation in each other.

When the prophets appeared in the declenſion and captivities of the kingdoms of *Iſrael* and *Judah*, the ſame interpretation would be ſtrengthened, and the expectations grounded thereon increaſed, by the plainer and more frequent declarations of the prophets concerning ſuch a future perſon, and the happineſs which would attend his coming. The great and various ſufferings of this choſen people, their return and deliverance, their having their ſcriptures collected into one view by *Ezra*, and read in their ſynagogues during the interval from *Ezra* to Chriſt, the figurative ſenſes put upon dreams, viſions, and parables, in their ſcriptures, &c. would all concur to the ſame purpoſe, till at laſt it is reaſonable to expect, that the *Jews* in our Saviour's time would conſider many of the inſtitutions and ceremonies of their law, of the hiſtorical events, of the pſalms appointed for the temple-worſhip, and of the inſpired declarations of the prophets, as reſpecting the future times of the *Meſſiah*; and this, in ſome caſes, to the excluſion of the more obvious ſenſes and uſes, which had already taken place; being led thereto by the ſame narrow-mindedneſs, which makes ſome in theſe days reject the typical and more remote ſenſe, as ſoon as they ſee the literal and more immediate one. Now, that this was, in fact, the caſe of the *Jews* in the time of Chriſt, and for ſome time afterwards, appears from the New Teſtament, from the chriſtian writers of the firſt ages, and from the Talmudical ones.

A great part, however, of the ſcripture types and prophecies appeared to the *Jews* to have no relation to their promiſed *Meſſiah*, till they were interpreted by the event. They expected a perſon that ſhould correſpond to *David* and *Solomon*, two glorious princes; but they did not ſee how *Iſaac*, or the Paſchal Lamb, ſhould tipify him; or that the circumſtance of being called out of *Egypt*, the appellation of *Nazerene*, or the parting garments, and caſting lots upon a veſture, ſhould contribute to aſcertain him. However, it is certain, that to perſons who had for ſome time conſidered their ſcriptures in the typical, prophetical view mentioned in the laſt paragraph, every remarkable circumſtance and coincidence of this kind, verified by the event, would be a new acceſſion of evidence, provided we ſuppoſe a good foundation from miracles, or prophecies of undoubted import, to have been laid previouſly. Nay, ſuch coincidences may be conſidered not only as arguments to the *Jews* of Chriſt's time, but as ſolid arguments in themſelves, and that excluſively of the context. For though each of theſe coincidences, ſingly taken, affords only a low degree of evidence, and ſome of them ſcarce any; yet it is a thing not to be accounted for from chance, that ſeparate paſſages of the Old Teſtament ſhould be applicable to the circumſtances of Chriſt's life, by an alluſion either of words or ſenſe, in ten or an hundred times a greater number, than to any other perſons, from mere accident. And this holds in a much higher degree, if the ſeparate paſſages or circumſtances be ſubordinate parts of a general type. Thus the parting the garments, the offering vinegar and gall, and the not breaking a bone, have

have much more weight, when it is conſidered, that *David*, and the Paſchal Lamb, are types of the *Meſſiah*. And when the whole evidence of this kind which the induſtry of pious chriſtians has brought to light in the firſt ages of chriſtianity, and again ſince the revival of letters, is laid together, it appears to me to be both a full proof of the truth of the chriſtian religion, and a vindication of the method of arguing from typical and double ſenſes.

It may be added in favour of typical reaſoning, that it correſponds to the method of reaſoning by analogy, which is found to be of ſuch extenſive uſe in philoſophy. A type is indeed nothing but an analogy, and the ſcripture types are not only a key to the ſcriptures, but ſeem alſo to have contributed to put into our hands the key of nature, analogy. And this ſhews us a new correſpondence or analogy between the word and works of God. However, ſince certain well-meaning perſons ſeem to be prejudiced againſt typical and double ſenſes, I will add ſome arguments, whereby the writers of the New Teſtament may be defended upon this footing alſo.

Firſt, then, Since the *Jews* in the times of the writers of the New Teſtament, and conſequently theſe writers themſelves, were much given to typical reaſonings, and the application of paſſages of the Old Teſtament in a ſecondary ſenſe to the times of the *Meſſiah*, this would be a common foundation for theſe writers, and thoſe to whom they wrote, to proceed upon, derived from aſſociation, and the acquired nature of their minds. And it is as eaſy to conceive, that God ſhould permit them to proceed upon this foundation for the then preſent time, though it would not extend to the world in general, to diſtant ages, and to perſons of different educations, as that they ſhould be left to the workings of their own acquired natures in many other reſpects, notwithſtanding the ſupernatural gifts beſtowed upon them in ſome; or as it is to conceive, that God ſhould confer any thing, exiſtence, happineſs, &c. in any particular manner or degree.

Secondly, There are ſome paſſages in the New Teſtament quoted from the Old in the way of mere alluſion. This cannot, I think, be true of many, where the paſſage is ſaid to be *fulfilled*, without doing violence to the natural ſenſe of the words, and of the context, in the New Teſtament: however, where it is, it entirely removes the objection here conſidered.

Thirdly, If we ſhould allow, that the writers of the New Teſtament were ſometimes guilty of erroneous reaſonings in theſe or other matters, ſtill this does not affect their moral characters at all; nor their intellectual ones, which are ſo manifeſt from the general ſoundneſs and ſtrength of their other reaſonings, in any ſuch manner as to be of importance in reſpect of the evidence for the general truth of the ſcriptures, or for their divine authority in the firſt and loweſt ſenſe above conſidered.

PROP. CXXXIII.

The moral Characters of Chriſt, the Prophets and Apoſtles, prove the Truth and Divine Authority of the Scriptures.

LET us begin with the conſideration of the character of Chriſt. This, as it may be collected from the plain narrations of the goſpels, is manifeſtly ſuperior to all other characters, fictitious or real, whether drawn by hiſtorians, orators, or poets. We ſee in it the moſt entire devotion and reſignation to God, and the moſt ardent and univerſal love to mankind, joined with the greateſt humility, ſelf-denial, meekneſs, patience, prudence, and every other virtue, divine and human. To which we are to add, that, according to the New Teſtament, Chriſt, being the Lord and creator of all, took upon himſelf the form of a ſervant, in order to ſave all; that, with this view, he ſubmitted to the helpleſſneſs and infirmities of infancy, to the narrowneſs of human underſtanding, and the perturbations of human affections, to hunger, thirſt, labour, wearineſs, poverty, and hardſhips of various kinds, to lead a ſorrowful, friendleſs life, to be miſunderſtood, betrayed, inſulted, and mocked, and at laſt to be put to a painful and ignominious death; alſo (which deſerves our moſt ſerious conſideration, however incongruous to our narrow apprehenſions it may appear at firſt ſight) to undergo the moſt bitter mental agony previouſly. Here then we may make the following obſervations.

Firſt, That, laying down the preſent diſorders of the moral world, and the neceſſity of the love of God and our neighbour, and of ſelf-annihilation, in order to the pure and ultimate happineſs of man, there ſeems to be a neceſſity alſo for a ſuffering Saviour. At leaſt, one may affirm, that the condeſcenſion of Chriſt, in leaving the glory which he had with the Father before the foundation of the world, and in ſhewing himſelf a perfect pattern of obedience to the will of God, both in doing and ſuffering, has a moſt peculiar tendency to rectify the preſent moral depravity of our natures, and to exalt us thereby to pure ſpiritual happineſs. Now it is remarkable, that the evangeliſts and apoſtles ſhould have thus hit upon a thing, which all the great men amongſt the ancient heathens miſſed, and which however clear it does and ought now to appear to us, was a great ſtumbling-block to them, as well as to the *Jews*; the firſt ſeeking after wiſdom, *i. e.* human philoſophy and eloquence; and the laſt requiring a ſign, or a glorious temporal Saviour. Nor can this be accounted for, as it ſeems to me, but by admitting the reality of the character, *i. e.* the divine miſſion of Chriſt, and the conſequent divine inſpiration of thoſe who drew it, *i. e.* the truth and divine authority of the New Teſtament.

Secondly, If we allow only the truth of the common hiſtory of the New Teſtament, or even, without having recourſe to it, only ſuch a part of the character of Chriſt, as neither ancient nor modern *Jews*, heathens, or unbelievers, ſeem to conteſt, it will be difficult

difficult to reconcile ſo great a character, claiming divine authority, either with the moral attributes of God, or indeed with itſelf, upon the ſuppoſition of the falſehood of that claim. One can ſcarce ſuppoſe, that God would permit a perſon apparently ſo innocent and excellent, ſo qualified to impoſe upon mankind, to make ſo impious and audacious a claim without having ſome evident mark of impoſture ſet upon him; nor can it be conceived, how a perſon could be apparently ſo innocent and excellent, and yet really otherwiſe.

Thirdly, The manner in which the evangeliſts ſpeak of Chriſt, ſhews that they drew after a real copy, *i. e.* ſhews the genuineneſs and truth of the goſpel hiſtory. There are no direct encomiums upon him, no laboured defences or recommendations. His character ariſes from a careful impartial examination of all that he ſaid and did, and the evangeliſts appear to have drawn this greateſt of all characters without any direct deſign to do it. Nay, they have recorded ſome things, ſuch as his being moved with the paſſions of human nature, as well as being affected by its infirmities, which the wiſdom of this world would rather have concealed. But their view was to ſhew him to the perſons to whom they preached as the promiſed *Meſſiah* of the *Jews*, and the Saviour of mankind; and as they had been convinced of this themſelves from his diſcourſes, actions, ſufferings, and reſurrection, they thought nothing more was wanting to convince ſuch others as were ſerious and impartial, but a ſimple narrative of what Jeſus ſaid and did. And if we compare the tranſcendent greatneſs of this character with the indirect manner in which it is delivered, and the illiterateneſs and low condition of the evangeliſts, it will appear impoſſible, that they ſhould have forged it, that they ſhould not have had a real original before them, ſo that nothing was wanting but to record ſimply and faithfully. How could mean and illiterate perſons excel the greateſt geniuſes, ancient and modern, in drawing a character? How came they to draw it an indirect manner? This is indeed a ſtrong evidence of genuineneſs and truth; but then it is of ſo recluſe and ſubtle a nature, and, agreeably to this, has been ſo little taken notice of by the defenders of the chriſtian religion, that one cannot conceive the evangeliſts were at all aware, that it was an evidence. The character of Chriſt, as drawn by them, is therefore genuine and true; and conſequently proves his divine miſſion both by its tranſcendent excellence, and by his laying claim to ſuch a miſſion.

Here it ought to be particularly remarked, that our Saviour's entire devotion to God, and ſufferings for the ſake of men in compliance with his will, is a pitch of perfection, which was never propoſed, or thought of, before his coming (much leſs attempted or attained); unleſs as far as this is virtually included in the precepts for loving God above all, and our neighbour as ourſelves, and other equivalent paſſages in the Old Teſtament.

We come, in the next place, to conſider the characters of the prophets, apoſtles, and other eminent perſons mentioned in the Old and New Teſtaments. Here then we may obſerve,

Firſt, That the characters of the perſons who are ſaid in the ſcriptures to have had divine communications, and a divine miſſion, are ſo much ſuperior to the characters which occur in common life, that we can ſcarce account for the more eminent ſingle ones, and therefore much leſs for ſo large a ſucceſſion of them, continued through ſo many ages, without allowing the divine communications and aſſiſtance, which they allege. It is true indeed, that many of theſe eminent perſons had conſiderable imperfections, and ſome of them were guilty of great ſins occaſionally, though not habitually. However, I ſpeak here of the balance, after proper deductions are made, on account of theſe ſins and imperfections; and leave it to the impartial reader to conſider, whether the prophets, apoſtles, &c. were not ſo much ſuperior, not only to mankind at an average, but even to the beſt men amongſt the *Greeks* and *Romans*, as is not fairly to be accounted for by the mere powers of human nature.

Secondly, If this ſhould be doubted, their characters are, however, far too good to allow the ſuppoſition of an impious fraud and impoſture; which muſt be the caſe, if they had not divine authority. We have therefore this double argument for the divine authority of the ſcriptures, if we only allow the genuineneſs and truth of its common hiſtory.

Thirdly, The characters of the eminent perſons mentioned in the ſcriptures ariſe ſo much, in an indirect way, from the plain narrations of facts, their ſins and imperfections are ſo fully ſet forth by themſelves, or their friends, with their condemnation and puniſhment, and the vices of wicked men, and the oppoſers of God and themſelves, related in ſo candid a way, with all fit allowances, that we have in this a remarkable additional evidence for the truth of this part of the ſcripture hiſtory, beſides the common ones before given, which extend to the whole.

Fourthly, The eminent perſons here conſidered are ſometimes charged by unbelievers with crimes, where, all circumſtances being duly weighed, they did nothing unjuſtifiable, nothing more than it was their indiſpenſable duty to God to do; as *Abraham* in preparing to ſacrifice *Iſaac*, *Joſhua* in deſtroying the *Canaanites*, &c. We cannot determine an action to be ſinful from a mere, abſtracted, general definition of it, as that it is the taking away the life of a man, &c. but muſt carefully weigh all circumſtances. And indeed there are no maxims in morality that are quite univerſal; they can be no more than general; and it is ſufficient for human purpoſes, that they are ſo much, notwithſtanding that the addition of peculiar circumſtances makes the action vary from the general rule. Now the certain command of God may ſurely be ſuch a circumſtance.

Laſtly, The perfection of virtue being of an ever-growing infinite nature, it is reaſonable to expect, that mankind in its infant ſtate, ſoon after the flood, and ſo onwards for ſome time, ſhould be more imperfect, and have leſs of the pure and ſublime precepts concerning indifference to this world, and all preſent things, univerſal unlimited charity, mortification, abſtinence, chaſtity, &c. delivered to them, than we chriſtians have,

have, and leſs expected from them. And yet, upon the whole, the patriarchs and eminent perſons among the *Jews* were *burning and ſhining lights* in their reſpective generations. However, it is alſo to be obſerved here, that the moſt ſublime precepts of the goſpel do appear from the firſt in the Old Teſtament, though under a veil; and that they were gradually opened more and more under the later prophets.

PROP. CXXXIV.

The Excellence of the Doctrine contained in the Scriptures is an Evidence of their Divine Authority.

THIS is an argument which has great force, independently of other conſiderations. Thus let us ſuppoſe, that the author of the goſpel which goes under St. *Matthew*'s name, was not known; and that it was unſupported by the writers of the primitive times; yet ſuch is the unaffected ſimplicity of the narrations, the purity of the doctrines, and the ſincere piety and goodneſs of the ſentiments, that it carries its own authority with it. And the ſame thing may be ſaid in general of all the books of the Old and New Teſtaments: ſo that it ſeems evident to me, that, if there was no other book in the world beſides the Bible, a man could not reaſonably doubt of the truth of revealed religion. *The mouth ſpeaks from the abundance of the heart.* Men's writings and diſcourſes muſt receive a tincture from their real thoughts, deſires, and deſigns. It is impoſſible to play the hypocrite in every word and expreſſion. This is a matter of common daily obſervation, that cannot be called in queſtion; and the more any one thinks upon it, or attends to what paſſes in himſelf or others, to the hiſtory of the human thoughts, words, and actions, and their neceſſary mutual connections, *i. e.* to the hiſtory of aſſociation, the more clearly will he ſee it. We may conclude therefore, even if all other arguments were ſet aſide, that the authors of the books of the Old and New Teſtaments, whoever they were, cannot have made a falſe claim to divine authority.

But there is alſo another method of inferring the divine authority of the ſcriptures from the excellence of the doctrine contained therein. For the ſcriptures contain doctrines concerning God, providence, a future ſtate, the duty of man, &c. far more pure and ſublime than can any ways be accounted for from the natural powers of men, ſo circumſtanced as the ſacred writers were. That the reader may ſee this in a clearer light, let him compare the ſeveral books of the Old and New Teſtaments with the cotemporary writers amongſt the *Greeks* and *Romans*, who could not have leſs than the natural powers of the human mind; but might have, over and above, ſome traditional hints derived ultimately from revelation. Let him conſider whether it be poſſible to ſuppoſe, that *Jewiſh* ſhepherds, fiſhermen, &c. ſhould, both before and after the riſe of the heathen philoſophy, ſo far exceed the men of the greateſt abilities and accompliſhments in others nations, by any other means, than divine communi-

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cations. Nay, we may ſay, that no writers, from the invention of letters to the preſent times, are equal to the penmen of the books of the Old and New Teſtaments, in true excellence, utility, and dignity; which is ſurely ſuch an internal criterion of their divine authority, as ought not to be reſiſted. And perhaps it never is reſiſted by any, who have duly conſidered theſe books, and formed their affections and actions according to the precepts therein delivered.

An objection is ſometimes made againſt the excellence of the doctrines of the ſcriptures, by charging upon them erroneous doctrines, eſtabliſhed by the authority of creeds, councils, and particular churches. But this is a manner of proceeding highly unreaſonable. The unbeliever, who pays ſo little regard to the opinions of others, as to reject what all churches receive, the divine miſſion of Chriſt, and the evidences for the truth of the ſcriptures, ought not at other times to ſuppoſe the churches, much leſs any particular one, better able to judge of the doctrine; but ſhould in the latter caſe, as well as the firſt, examine for himſelf; or if he will take the doctrine upon truſt, he ought much rather to take the evidence ſo.

If it can be ſhewn, either that the true doctrine of the ſcriptures differs from that which is commonly received, or that reaſon teaches ſomething different from what is commonly ſuppoſed, or laſtly that we are inſufficient judges what are the real doctrines of ſcripture, or reaſon, or both, and conſequently that we ought to wait with patience for farther light, all objections of this kind fall to the ground. One may alſo add, that the ſame arguments which prove a doctrine to be very abſurd, prove alſo, for the moſt part, that it is not the ſenſe of the paſſage; and that this is a method of reaſoning always allowed in interpreting profane authors.

PROP. CXXXV.

The many and great Advantages which have accrued to the World from the Patriarchal, Judaical, *and* Chriſtian *Revelations, prove the Divine Authority of the Scriptures.*

THESE advantages are of two ſorts, relating reſpectively to the knowledge and practice of religion. I begin with the firſt.

Now it is very evident, that the chriſtian revelation has diffuſed a much more pure and perfect knowledge of what is called natural religion, over a great part of the world, viz. wherever the profeſſion either of chriſtianity or Mahometiſm prevails. And the ſame thing will appear, in reſpect of the *Judaical* and *patriarchal* revelations, to thoſe who are acquainted with ancient hiſtory. It will be found very difficult by ſuch perſons, to account even for the pagan religions without recurring to ſuch patriarchal communications with God, as are mentioned in the Pentateuch, and to the more full revelations made to the *Jews*. So that one is led to believe, that all that is good in any pagan or falſe religion, is of divine original; all that is erroneous and corrupt, the offspring

offspring of the vanity, weakneſs, and wickedneſs of men; and that properly ſpeaking, we have no reaſon from hiſtory to ſuppoſe, that there ever was any ſuch thing as mere natural religion, *i. e.* any true religion, which men diſcovered to themſelves by the mere light of nature. Theſe poſitions ſeem to follow from inquiries into the antiquities of the heathen world, and of their religions. The heathen religions all appear to be of a derivative nature; each circumſtance in the inquiry confirms the ſcriptural accounts of things, and ſends us to the revelations expreſsly mentioned, or indirectly implied, in the Old Teſtament, for the real original of the pagan religions in their ſimple ſtate. This opinion receives great light and confirmation from Sir *Iſaac Newton*'s Chronology.

It appears alſo very probable to me, that a careful examination of the powers of human underſtanding would confirm the ſame poſition; and that admitting the novelty of the preſent world, there is no way of accounting for the riſe and progreſs of religious knowledge, as it has taken place in fact, without having recourſe to divine revelation. If we admit the *Patriarchal*, *Judaical*, and *Chriſtian* revelations, the progreſs of natural religion, and of all the falſe pretences to revelation, will fairly ariſe (at leaſt, appear poſſible in all caſes, and probable in moſt) from the circumſtances of things, and the powers of human nature; and the foregoing doctrine of aſſociation will caſt ſome light upon the ſubject. If we deny the truth of theſe revelations, and ſuppoſe the ſcriptures to be falſe, we ſhall caſt utter confuſion upon the inquiry, and human faculties will be found far unequal to the taſk aſſigned to them.

Secondly, If we conſider the practice of true religion, the good effects of revelation are ſtill more evident. Every man who believes, muſt find himſelf either excited to good, or deterred from evil, in many inſtances, by that belief; notwithſtanding that there may be many other inſtances, in which religious motives are too weak to reſtrain violent and corrupt inclinations. The ſame obſervations occur daily with regard to others, in various ways and degrees. And it is by no means concluſive againſt this obvious argument for the good effects of revelation upon the morals of mankind, to allege that the world is not better now, than before the coming of Chriſt. This is a point which cannot be determined by any kind of eſtimation, in our power to make; and, if it could, we do not know what circumſtances would have made the world much worſe than it is, had not chriſtianity interpoſed. However, it does appear to me very *probable*, to ſay the leaſt, that *Jews*, and *chriſtians*, notwithſtanding all their vices and corruptions, have, upon the whole, been always better than heathens and unbelievers. It ſeems to me alſo, that as the knowledge of true, pure, and perfect religion is advanced and diffuſed more and more every day, ſo the practice of it correſponds thereto: but then this, from the nature of the thing, is a fact of a leſs obvious kind; however, if it be true, it will become manifeſt in due time. Let us ſuppoſe a perſon to maintain, that civil government, the arts of life, medicines, &c. have never been of uſe to mankind, becauſe it does not appear from any certain calculation, that

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the ſum total of health and happineſs is greater among the polite nations, than among the barbarous ones. Would it not be thought a ſufficient anſwer to this, to appeal to the obvious good effects of theſe things in innumerable inſtances, without entering into a calculation impoſſible to be made? However, it does here alſo appear, that, as far as we are able to judge, civilized countries are, upon the whole, in a more happy ſtate than barbarous ones, in all theſe reſpects.

Now, as the divine original of revelation may be directly concluded from its being the ſole fountain of all religious knowledge, if that can be proved; ſo it will follow in an indirect way, if we ſuppoſe, that revelation has only promoted the knowledge and practice of true religion. It is not likely, that folly or deceit of any kind ſhould be eminently ſerviceable in the advancement of wiſdom and virtue. Every tree muſt produce its proper fruit. Enthuſiaſm and impoſture cannot contribute to make men prudent, peaceable and moderate, diſintereſted and ſincere.

PROP. CXXXVI.

The wonderful Nature, and ſuperior Excellence, of the Attempt made by Chriſt, and his Apoſtles, are Evidences of their Divine Authority.

THIS attempt was that of reforming all mankind, and making them happy in a future ſtate. And, when we conſider firſt the attempt itſelf, and then the aſſurance of ſucceſs in it, which appears in all their words and actions, by ways both direct and indirect, there ariſes from thence alone, a ſtrong preſumption in their favour, as well as in favour of the authors of the books of the Old Teſtament, who have concurred in the ſame attempt, though leſs informed of the true nature and full extent of it. For ideas and purpoſes of this kind could ſcarce enter into the hearts of weak or wicked men; much leſs could ſuch perſons enter upon and proſecute ſo great an undertaking with ſuch prudence, integrity, and conſtancy, or form ſuch right judgments both of the oppoſition they ſhould meet with, and of the prevalence of their own endeavours, and thoſe of their ſucceſſors, over this oppoſition. Nay, one may ſay, that nothing leſs than ſupernatural aſſiſtance could qualify them for theſe purpoſes. No deſign of this kind was ever formed, or thought of, till the coming of Chriſt; and the pretences of enthuſiaſts and impoſtors to the ſame commiſſion ſince, have all been copied from Chriſt, as being neceſſary to their ſucceeding in any meaſure, ſince his coming. If it be ſuppoſed to be the true interpretation and meaning of the ſcriptures, to publiſh final redemption, converſion, and ſalvation to all mankind, even the moſt wicked, in ſome diſtant future ſtate, this will add great force to the preſent argument.

PROP. CXXXVII.

The Manner in which the Love of God, and of our Neighbour, is taught and inculcated in the Scriptures, is an Evidence of their Divine Authority.

For it appears, that the ſcriptures do virtually include, or even expreſsly aſſert, all that the modern philoſophy has diſcovered or verified concerning theſe important ſubjects; which degree of illumination, as it can with no plauſibility be accounted for in illiterate men in the time of *Auguſtus* from natural cauſes, ſo much leſs can it in the preceding times from Chriſt up to *Moſes*. This propoſition is included in the thirty-fifth; however, the ſubject of it is of ſo much importance, as to deſerve a ſeparate place.

Here then, Firſt, We may obſerve, that *Moſes* commands the *Iſraelites* to love God with all the heart, and ſoul, and might, whereas they are to love their neighbours only as themſelves. Now, though this infinite ſuperiority of the love due to God over that due to our neighbour be perfectly agreeable to that infinite majeſty and goodneſs of God, and nothingneſs of the creatures, which every new diſcovery in philoſophy now opens to view; yet it was ſo little known, many ages after *Moſes*, amongſt the wiſeſt of the *Greeks* and *Romans*, that we cannot aſcribe it to his mere natural ſagacity. The natural equality of all men, and the ſelf-annihilation, implied in the precept of loving *all* our brethren as well as ourſelves, are alſo the genuine dictates of true philoſophy.

Secondly, In order to ſhew the divine authority of the ſcriptures, from the manner in which the love of God is taught in them, we muſt conſider not only the direct precepts concerning this love, but alſo all thoſe concerning hope, truſt, fear, thankfulneſs, delight, &c. for all theſe concur to inculcate and beget in us the love of God. The ſame may be ſaid of all the ſcriptural deſcriptions of God, and his attributes, and of the addreſſes of good men to him, which are there recorded. God is declared in the ſcriptures to be light, love, goodneſs, the ſource of all happineſs and perfection, the father and protector of all, &c. And the eminent perſons who compoſed the Pſalms, and other ſuch like addreſſes to God, appear to have devoted themſelves entirely to him. Now, when we reflect, that there is ſcarce any thing of this kind in the writings of the philoſophers who preceded Chriſt, and nothing comparable to the ſcripture expreſſions even in thoſe who came after him; when we farther reflect, that the writings of the ableſt and beſt men of the preſent times contain nothing excellent of the devotional kind, but what may be found in the ſcriptures, and even in the Old Teſtament; there ſeems to be a neceſſity for having recourſe to divine inſpiration, as the original ſource of this great degree of illumination in the patriarchs, prophets, and apoſtles.

Thirdly, Good perſons are, in the ſcriptures, ſtyled *children of God*; *members of Chriſt*; *partakers of the divine nature*; *one with God and Chriſt, as Chriſt is with God*; *members of each other*; *heirs of God, and coheirs with Chriſt*; *heirs of all things*, &c. Expreſſions which have the ſtrongeſt tendency to raiſe in us an unbounded love to God, and an equal one to our neighbour, and which include and convey the moſt exalted, and at the ſame time the moſt ſolid, conceptions of this great ſyſtem of things. And if we ſuppoſe, that theſe high titles and privileges are, according to the ſcriptures, to be hereafter extended to all mankind, the divine original of the ſcriptures will receive a new acceſſion of evidence on this account.

PROP. CXXXVIII.

The Doctrine of the neceſſary Subſerviency of Pain to Pleaſure, unfolded in the Scriptures, is an Evidence of their Divine Authority.

The ſcriptures give frequent and ſtrong intimations, that the ultimate happineſs which they promiſe, is not to be obtained in this our degenerate ſtate, but by a previous paſſage through pain. *Bleſſed are they that mourn. We muſt rejoice in tribulation. The palm-bearing multitude comes out of great tribulation. The captain of our ſalvation*, and therefore all his ſoldiers, muſt be *made perfect through ſufferings. Without ſhedding of blood there is no remiſſion of ſins. It is good for us to be afflicted, that we may learn to keep the commandments of God.* The *Jews* muſt be captivated, and undergo the ſevereſt afflictions, before they can be made happy finally, as the people of God. *Man muſt eat his bread in the ſweat of his brow* all his life, *and return to duſt* at laſt; and yet ſtill *the ſeed of the woman ſhall bruiſe the ſerpent's head*, and gain readmiſſion to *the tree of life, whoſe leaves ſhall heal the nations*, &c. &c. Now there is a ſurprizing correſpondence between ſuch expreſſions as theſe, and many modern diſcoveries, which ſhew that pain is, in general, introductory and ſubſervient to pleaſure; and particularly, that ſuch is the preſent frame of our natures, and conſtitution of the external world, which affects our organs, that we cannot be delivered from the ſenſuality and ſelfiſhneſs, that ſeize upon us at our firſt entrance into life, and advanced to ſpirituality and diſintereſtedneſs, to the love of God and our neighbour, we cannot have our wills broken, and our faculties exalted and purified, ſo as to reliſh happineſs wherever we ſee it, but by the perpetual correction and reformation of our judgments and deſires from painful impreſſions and aſſociations. And all philoſophical inquiries of this kind ſeem to caſt a peculiar light and evidence upon the ſcripture expreſſions before-mentioned, and to make their accuracy, and congruity with experience and obſervation, be much more plainly ſeen and felt.

PROP. CXXXIX.

The mutual Inſtrumentality of Beings to each other's Happineſs and Miſery, unfolded in the Scriptures, is an Argument of their Divine Authority.

To this head is to be referred all that the ſcriptures deliver concerning good and evil angels; Chriſt, the Lord of all, becoming the redeemer of all; *Adam*'s injuring all his poſterity through his frailty; *Abraham*'s becoming the father of the faithful, and all nations being bleſſed through him; the *Jews* being the keepers of the oracles of God, and of the true religion; tyrants being ſcourges in the hand of God; the fulneſs of the Gentiles being the occaſion of the final reſtoration of the *Jews*; and, in general, the doctrine that God prepares and diſpoſes of every thing ſo, as that nothing is for itſelf alone, but every perſon and nation has various relations to others, co-operates with them through Chriſt, who is *the head*, and through whom the *whole body being fitly joined together, and compacted by that which every joint ſupplieth, increaſeth and edifieth itſelf in love*, till *all things, both in heaven and earth*, arrive, in their ſeveral orders, to the *meaſure of the ſtature of the fulneſs of Chriſt*. Now whoever compares theſe ſcripture expreſſions and doctrines with the various mutual relations, ſubſerviences, and uſes of the parts of the external world, heavenly bodies, meteors, elements, animals, plants, and minerals, to each other, cannot help ſeeing a wonderful analogy between the works of God and the ſcriptures, ſo wonderful as juſtly to entitle the laſt to the appellation of the word of God.

And thus we may perceive, that the ſcripture account of the fall of man, his redemption by Chriſt, and the influences exerted upon him by good and evil angels, is ſo far from affording an objection againſt the chriſtian religion, that it is a conſiderable evidence for it, when viewed in a truly philoſophical light. God works in every thing by means, by thoſe which, according to our preſent language and ſhort-ſightedneſs, are termed bad and unfit, as well as by the good and evidently fit ones; and all theſe means require a definite time, before they can accompliſh their reſpective ends. This occurs to daily obſervation in the courſe and conſtitution of nature. And the ſcripture doctrines concerning the fall, the redemption by Chriſt, and the influences of good and evil angels, are only ſuch intimations concerning the principal inviſible means that lead man to his ultimate end, happineſs in being united to God, as accelerate him in his progreſs thither. According to the ſcriptures, *Adam* hurts all, through frailty; Chriſt ſaves all, from his love and compaſſion to all; evil angels tempt, through malice; and good ones aſſiſt and defend, in obedience to the will of God, and his original and ultimate deſign of making all happy. Theſe things are indeed clothed in a conſiderable variety of expreſſions, ſuited to our preſent ways of acting, conceiving, and ſpeaking (which ways are, however, all of divine original, God having taught mankind, in the patriarchal times, the language, as one may ſay, in which he ſpake to them then and afterwards);

but theſe expreſſions can have no greater real import, than that of ſignifying to us the means made uſe of by God; he being, according to the ſcriptures, as well as reaſon, the one only real agent in all the tranſactions that relate to man, to angels, &c. And to object to the method of producing happineſs by this or that means, becauſe of the time required to accompliſh the end, of the mixture of evil, &c. is to require, that all God's creatures ſhould at once be created infinitely happy, or rather have exiſted ſo from all eternity, *i. e.* ſhould be *gods*, and not *creatures*.

PROP. CXL.

The Divine Authority of the Scriptures may be inferred from the ſuperior Wiſdom of the Jewiſh *Laws, conſidered in a political Light; and from the exquiſite Workmanſhip ſhewn in the Tabernacle and Temple.*

All theſe were originals amongſt the *Jews*, and ſome of them were copied partially and imperfectly by ancient heathen nations. They ſeem alſo to imply a knowledge ſuperior to the reſpective times. And I believe, that profane hiſtory gives ſufficient atteſtation to theſe poſitions. However, it is certain from ſcripture, that *Moſes* received the whole body of his laws, alſo the pattern of the tabernacle, and *David* the pattern of the temple, from God; and that *Bezaleel* was inſpired by God for the workmanſhip of the tabernacle. Which things, being laid down as a ſure foundation, may encourage learned men to inquire into the evidences from profane hiſtory, that the knowledge and ſkill to be found amongſt the *Jews* were ſuperior to thoſe of other nations at the ſame period of time, *i. e.* were ſupernatural.

PROP. CXLI.

The Want of Univerſality in the Publication of Revealed Religion is no Objection to it; but, on the Contrary, the Time and Manner, in which the Scriptures were written, and delivered to the World, are Arguments for their Divine Authority.

Here I obſerve,

Firſt, That objections of this kind ought never to be admitted againſt hiſtorical evidence; and, in fact, are not, upon other ſubjects. It is evident, as was obſerved in the beginning of this chapter, that to allow the truth of the ſcripture hiſtory, is to allow the truth of the chriſtian religion. Now it is very foreign to the purpoſe of an inquiry into the truth of the ſcripture hiſtory, to allege that it has not been made known to all mankind, in all ages, and under all circumſtances of each individual. It muſt require much abſtracted and ſubtle reaſoning, and ſuch as can never be put in competition with plain hiſtorical evidence, to connect this objection with the propoſition objected to.

This

This is therefore, at leaſt, a ſtrong preſumption againſt the validity of ſuch an objection.

Secondly, This objection ſeems to derive its whole force from ſuch poſitions relating to the moral attributes of God, as make it neceſſary for us to ſuppoſe, either that he deals with all his creatures at preſent in an equally favourable manner, or, at leaſt, that nothing ſhall be ultimately wanting to their happineſs. Now the firſt ſuppoſition appears, upon the moſt tranſient view which we take of things, to be utterly falſe. There are differences of all degrees at preſent, in reſpect of all the good things which God has given us to enjoy; and therefore may be in the beſt of all good things, revealed religion. And indeed, if it was otherwiſe in reſpect of revealed religion, one ſtrong argument in its favour would be wanting, viz. its analogy with the courſe of nature. The moral attributes of God are to be deduced from obſervations made upon the courſe of nature. If therefore the tenor of revelation be agreeable to that of nature, it muſt be ſo to the moral attributes of God. But if any one ſuppoſes, in the ſecond place, that, notwithſtanding preſent and apparent differences in the circumſtances of God's creatures, there are no real and ultimate ones; at leaſt, that the balance will ultimately be in favour of each individual finitely, or perhaps infinitely; I anſwer, that this ſuppoſition is as agreeable to revelation as to natural reaſon; that there are as probable evidences for it in the word of God, as in his works, there being *no acceptance of perſons with God, no difference between the Jew and the Gentile*, according to the ſcriptures; and that we may infer as ſtrongly from the ſcriptures, that Chriſt will ſave all, as it can be inferred from philoſophy, that all will be made happy in any way; both which poſitions I ſhall endeavour to eſtabliſh hereafter, with the mutual illuſtrations and confirmations, which theſe glorious doctrines of natural and revealed religion afford to each other. And the gradual diffuſion of the *Patriarchal*, *Judaical*, and *Chriſtian* revelations, compared with the prophecies relating to the future kingdom of Chriſt, and with the preſent circumſtances of things, will afford great ſatisfaction and joy to every pious, benevolent perſon, who inquires into this ſubject. Theſe conſiderations will incline him to believe, that the goſpel will, ſooner or later, be preached to *every creature in heaven, in earth, under the earth*, &c. and not only preached, but received, obeyed, and made the means of unſpeakable happineſs to them. And thus this objection will be removed not only in ſpeculation, and according to reaſon, but in fact, from the preſent unhappy objectors; and *they will look on him whom they have pierced.*

Thirdly, Having ſhewn that a gradual and partial promulgation is not inconſiſtent with the ſuppoſition of a true revelation, we may farther affirm, that the particular time and manner, in which the ſeveral *Patriarchal*, *Judaical*, and *Chriſtian* revelations have been publiſhed to the world, are even arguments in their favour. This ſubject has been well handled by various learned men, particularly by Mr. *Arch. Law*, in his conſiderations on the ſtate of the world, &c. Theſe gentlemen have ſhewn, that, *cæteris manentibus*, which is in theſe things always to be previouſly allowed, the diſ-

penſations

penſations recorded in the ſcriptures have been, as far as we can judge, perfectly ſuited to the ſtates of the world at the times when theſe diſpenſations were made reſpectively, *i. e.* to the improvement of mankind in knowledge ſpeculative and practical, to their wants, and to their ability to profit in moral accompliſhments; ſo that if we ſuppoſe either much more, or much leſs, light to have been afforded to mankind in a ſupernatural way (*cæteris manentibus*; and particularly their voluntary powers over their affections and actions, or free-will in the practical ſenſe, remaining the ſame), their advancement in moral perfection, in voluntary obedience to, and pure love of God, would probably have been leſs: which ſuitableneſs of each revelation to the time when it was made, and to the production of the *maximum* of moral perfection, is an argument for the ſyſtem of revelation, of the ſame kind with thoſe for the goodneſs of God, which are drawn from the mutual fitneſſes of the finite and imperfect parts of the natural world to each other, and to the production of the *maximum*, or greateſt poſſible quantity of happineſs.

PROP. CXLII.

The Excluſion of all great Degrees of Enthuſiaſm and Impoſture from the Characters of Chriſt, the Prophets and Apoſtles, proves their Divine Authority.

THAT Chriſt, the prophets and apoſtles, cannot be charged with any great degrees of enthuſiaſm or impoſture, ſeems allowed by many unbelievers; and is evident from the firſt view of their diſcourſes and writings, and of hiſtory ſacred and profane. We might ſay, that much more is evident. However, for the preſent, let us only ſuppoſe all great degrees of enthuſiaſm and impoſture excluded, and inquire how far their divine miſſion may be inferred from that ſuppoſition.

Firſt, then, If all great degrees of enthuſiaſm be excluded, Chriſt, the prophets and apoſtles, muſt know whether or no they were under the influence of the divine ſpirit, ſo as to propheſy, ſpeak, and interpret languages, which they had never learnt, and work miracles. Indeed to ſuppoſe them not capable of diſtinguiſhing theſe powers in themſelves and each other, is to charge them with downright madneſs.

Secondly, Since then they claimed theſe powers every where, as the ſeal of their commiſſion from God; if they had them not, *i. e.* if they had not divine authority, they muſt be impoſtors, and endeavour to deceive the world knowingly and deliberately. And this impoſture, whether we conſider the affront offered to God, or the injury done to mankind, or its duration, its audaciouſneſs, &c. would be the deepeſt and blackeſt that has ever appeared in the world. It is therefore excluded by ſuppoſition; and conſequently, ſince a leſs degree will not account for a falſe claim to divine authority, we muſt allow, that Chriſt, the prophets and apoſtles, made a true one.

Thirdly,

Thirdly, Let it be obſerved, that though cautious unbelievers do not venture to charge Chriſt, the prophets and apoſtles, either with groſs euthuſiaſm, or abandoned impoſture, in expreſs terms; yet they find themſelves obliged to inſinuate both in all their attacks upon revealed religion: which is, in effect, to acknowledge the truth of the preſent propoſition; for it is the ſame thing, as to acknowledge, that both the charge of groſs enthuſiaſm, and that of abandoned impoſture, are neceſſary to ſupport the objections againſt revealed religion. Now, as neither charge, ſingly taken, can be maintained; ſo both together are inconſiſtent. Groſs enthuſiaſm does not admit that conſtant caution, and cool diſpaſſionate cunning, which abandoned impoſture ſuppoſes and requires in order to ſucceed.

PROP. CXLIII.

The Reception which Chriſt, his Forerunners and Followers, with their Doctrines, have met with in all Ages, is an Argument of their Divine Authority.

This evidence does, as it were, embrace all the others, and give a particular force to them. For it will be a ſtrong confirmation of all the evidences for the *Jewiſh* and chriſtian religions, if we can ſhew, that the perſons to whom they have been offered, have been influenced by them as much as there was reaſon to expect, admitting them to be true; and far more than could be expected, on ſuppoſition that they were falſe. The moſt illuſtrious inſtance of this, is the victory which the chriſtian miracles and doctrines, with the ſufferings of our Saviour, and his followers, gained over the whole powers, firſt, of the *Jewiſh* ſtate, and then of the *Roman* empire, in the primitive times. For here all ranks and kinds of men, princes, prieſts, *Jewiſh* and heathen, philoſophers, populace, with all their aſſociated prejudices from cuſtom and education, with all their corrupt paſſions and luſts, with all the external advantages of learning, power, riches, honour, and, in ſhort, with every thing but truth, endeavoured to ſuppreſs the progreſs that Chriſt's religion made every day in the world; but were unable to do it. Yet ſtill the evidence was but of a limited nature; it required to be ſet forth, atteſted, and explained, by the preacher, and to be attended to, and reflected upon, with ſome degree of impartiality, by the hearer: and therefore, though the progreſs of it was quick, and the effect general, yet they were not inſtantaneous and univerſal. However, it is very evident, that any fraud, or falſe pretence, muſt ſoon have yielded to ſo great an oppoſition ſo circumſtanced.

The efficacy which the chriſtian doctrine then had in reforming the lives of many thouſands, is here to be conſidered as a principal branch of this argument, it being evidently the moſt difficult of all things, to convert men from vicious habits to virtuous ones, as every one may judge from what he feels in himſelf, as well as from what he ſees in others; and whatever does this, cannot, as it ſeems to me, but come from God. The falſe

falſe religions, and various corruptions of the true, which have from time to time appeared in the world, have been enabled to do this in the imperfect manner in which they have done it, merely, as it ſeems to me, from that mixture of important truths, and good motives, which they have borrowed from real revelations, *Patriarchal*, *Judaical*, and *Chriſtian*.

In like manner, as the propagation of chriſtianity, upon its firſt appearance in the world, evinces its divine original, ſo does the progreſs it has ſince made, and the reception which it meets with at preſent, amongſt the ſeveral ranks and orders of men. The detail of this would run out to a great length. It may, however, be of ſome uſe, juſt to obſerve, that, notwithſtanding the great prevalence of infidelity in the preſent times, it is ſeldom found to conſiſt with an accurate knowledge of ancient hiſtory, ſacred and profane, and never with an exalted piety and devotion to God.

And it is as peculiarly for the credit of chriſtianity, that it ſhould now be ſupported by the learned, as that it was firſt propagated by the unlearned; and an inconteſtable evidence for it, as appears to me, that it has been univerſally embraced by all eminently pious perſons, to whom it has been made known in a proper manner.

The analogous obſervations may be made upon the reception which the *Jewiſh* religion met with both from the *Jews* themſelves, and from the neighbouring nations. It ſeems impoſſible for *Moſes* to have delivered the *Jews* from their oppreſſion in *Egypt*, and afterwards to have ſubjected them to his laws, for *Joſhua* to have conquered *Canaan*, for the religion to have ſubſiſted in the ſucceeding times of the judges and kings, for the prieſts and prophets to have maintained their authority, for the people to have returned, after their captivity, with their religion in an uncorrupted ſtate, and to have ſupported it and themſelves againſt the kings of *Syria* and *Egypt*, and the power of the *Romans*, and to remain at this day a ſeparate people diſperſed all over the world, according to the prophecies, unleſs the miraculous part of the hiſtory of the Old Teſtament be allowed to be true, as well as the other.

PROP. CXLIV.

The Reception which falſe Religions have met with in the World, are Arguments of the Truth of the Chriſtian.

I WILL here make a few ſhort remarks,

Firſt, Upon the polytheiſtical, idolatrous religions of the ancient world.

Secondly, Upon the religious inſtitutions of *Zoroaſter*.

Thirdly, Upon the impoſture of *Mahomet*.

Fourthly, Upon the enthuſiaſtical ſects, which have appeared from time to time amongſt chriſtians.

All theſe ſeem to have met with ſuch ſucceſs, as might be expected from the mixture of truth and falſehood in them, compared with the then circumſtances of things.

things. They are therefore indirect evidences for the truth of the chriſtian religion, ſince this has met with ſuch ſucceſs, as cannot be reconciled to the circumſtances of things, unleſs we ſuppoſe it true.

And, Firſt, The ancient pagan religions ſeem evidently to be the degenerated offſpring of the patriarchal revelations; and ſo far to have been true, as they taught a God, a providence, a future ſtate, ſupernatural communications made to particular perſons, eſpecially in the infancy of the world, the preſent corruption of man, and his deviation from a pure and perfect way, the hopes of a pardon, a mediatorial power, the duties of ſacrifice, prayer, and praiſe, and the virtues of prudence, temperance, juſtice, and fortitude. They were falſe, as they mixed and polluted theſe important truths with numberleſs fables, ſuperſtitions, and impieties. That degree of truth, and moral excellence, which remained in them, was a principal cauſe of their ſucceſs, and eaſy propagation, among the people; for their moral ſenſe would direct them to approve and receive what was fit and uſeful. And, had the people of thoſe times penetrated ſufficiently into the powers of the human mind, they might have concluded, that religious truths could not be of human invention. However, as the impreſſions, which the hiſtorical and prophetical evidences for the patriarchal revelations had made upon mankind, were not yet obliterated; they believed upon the authority of tradition, that all important knowledge, eſpecially in ſacred matters, was of divine original.

As to the miracles ſaid to be wrought upon certain occaſions in pagan nations, we may make theſe two remarks: Firſt, That the evidence for theſe is far inferior to that for the *Jewiſh* and chriſtian miracles; ſo that theſe may be true, though thoſe be falſe. Secondly, That we are not ſufficiently informed of the ways of providence, to infer that God did not permit, or cauſe, ſome miracles to be wrought, even in times and places, where great corruption prevailed. Divine communications and miracles were probably moſt common ſoon after the flood, in the infancy of mankind: afterwards, as they advanced towards adult age, theſe ſupernatural interpoſitions grew more rare (unleſs upon ſingular occaſions, as upon the publication of the law by *Moſes*, and of the goſpel by Chriſt; at which times, many and great miracles ſucceeded each other at ſhort intervals, in order to command awe, attention, and belief); and it may be, that they ceaſed in the pagan world for ſome ages before Chriſt: or it may be otherwiſe; and that, in rare and extraordinary caſes, the hand of God appeared in a miraculous manner. Analogy favours the laſt opinion, as it ſeems to me; which alſo appears to be more countenanced by hiſtory, than the contrary one; and yet the pretences to miracles amongſt the pagans were undoubtedly falſe, in the general.

I come, in the ſecond place, to conſider the religious inſtitutions of *Zoroaſter*. We have not ſo full and authentic an hiſtory of theſe, as to compare them properly with the *Jewiſh* or chriſtian revelations. If we ſuppoſe, that *Zoroaſter* and *Hyſtaſpes* ſet up the worſhip of one God, in a ſimple manner, teaching and inculcating the practice of virtue at the ſame time, this religion may be ſaid to have conſiderable moral evidence in its

favour. If, farther, we ſuppoſe it to be in part derived, either from the deſcendents of *Abraham* by *Keturah*, called *Brachmans* from him, or from that knowledge of the true God, which the ten tribes, and the *Jews*, had then communicated to that part of the world, it will become an evidence for the *Jewiſh* religion.

Thirdly, The religion of *Mahomet* allows and preſuppoſes the truth of the *Jewiſh* and chriſtian. Its rapid propagation was owing chiefly to the mixture of political intereſts. That part of its doctrines, which is good, is manifeſtly taken from the ſcriptures; and this contributed to its ſucceſs. However, a compariſon of mahometiſm with chriſtianity, in the ſeveral particulars of each, ſeems to ſhew, that whenever a ſtrict examination is made into the hiſtory of mahometiſm by its profeſſors, the falſehood of it will quickly be made evident to them. It could not ſtand ſuch a trial, as chriſtianity has, ſince the revival of learning in theſe weſtern parts.

It ſeems eaſy to apply what has been delivered in the three laſt paragraphs to the analogous particulars of the religion of *Confucius*, and of other religions found in the *Eaſt* and *Weſt Indies*, as far as their hiſtories are ſufficiently full and authentic for that purpoſe.

Laſtly, One may make the following remarks, with reſpect to the ſeveral enthuſiaſtic ſects, that ariſe from time to time amongſt chriſtians.

Firſt, That their pretences to miracles and prophecies have, in general, been detected and expoſed, after ſome examination and inquiry; unleſs the ſect has begun to decline from other cauſes, before a ſtrict examination became neceſſary.

Secondly, That their pretended miracles were not of that evident kind, nor done in the ſame open manner, &c. as the *Jewiſh* and chriſtian miracles.

Thirdly, That theſe pretended miracles have not produced laſting effects upon the minds of men, like the *Jewiſh* and *Chriſtian*. Now, though a religion may ſucceed for a time without true miracles, yet it ſeems hard to believe, that any ſhould fail with them.

Fourthly, The ſucceſs of ſects has, in general, been owing to their making greater pretences to purity, and goſpel perfection, than eſtabliſhed churches, and to their both teaching and practiſing ſome neceſſary duties, which eſtabliſhed churches have too much neglected in the corrupted ſtate of chriſtianity. And in this light they have been true in part, and have done the moſt important ſervice to the world. Every ſect of chriſtians has magnified ſome great truth, not above its real value, but above the value which other ſects have ſet upon it; and by this means each important religious truth has had the advantage of being ſet in a full light by ſome party or other, though too much neglected by the reſt. And the true catholic church and communion of ſaints unites all theſe ſects, by taking what is right from each, and leaving the errors, falſehoods, and corruptions of each to combat and deſtroy one another.

And it may be, that mankind will be able in future generations to ſee, how every other ſect, and pretence to revelation, beſides thoſe of enthuſiaſtic chriſtians, in what-

ever

ever age or country it has appeared, has been, all other things remaining the ſame, ſuited in the beſt poſſible manner, both to particular and general purpoſes; and that each has prepared the way, in its proper place, for that more complete ſtate predicted in the ſcriptures under the titles of *the kingdom of heaven*, and *of righteouſneſs*, *of the New Jeruſalem*, &c. Even infidelity, atheiſm, and ſcepticiſm, have their uſe. The veſſels of wrath are ſtill veſſels belonging to the Maker and Lord of all things, and anſwering his infinitely beneficent purpoſes. *Offences muſt come*, though *woe be to thoſe, by whom they come!* Each ſect, and pretence, and objection, has given, or will give, way in its time. The true and pure religion of Chriſt alone grows more evident and powerful from every attack that is made upon it, and converts the bitterneſs and poiſon of its adverſaries into nouriſhment for itſelf, and an univerſal remedy for the pains and ſorrows of a miſerable, degenerate world.

CHAP. III.

Of the RULE *of* LIFE.

HAVING delivered in the two foregoing chapters, the reſpective evidences for natural and revealed religion, I proceed now to inquire into the rule of life enjoined by them. This, it is evident, muſt be compliance with the will of God. Both natural and revealed religion teach this at firſt view; which is alſo the immediate dictate of rational ſelf-intereſt. It is farther evident, that the love of God, and of our neighbour, with moderation in all ſelfiſh enjoyments, muſt be the will of him, who is infinitely benevolent, *i. e.* in the popular phraſe, infinitely holy, merciful, juſt, and true, who has ſent us into this world to make ourſelves and others happy. This we may learn from natural religion, and the ſcriptures abound every where with the ſame precepts. I propoſe therefore, in this chapter, to enter into the detail of theſe precepts, and to apply them to the ſeveral particular circumſtances of human life, digeſting what I have to offer, under the heads of the ſeven kinds of pleaſure and pain, whoſe hiſtory I have given in the foregoing part of this work. But firſt I will, in the four propoſitions that follow next, premiſe an argument in favour of virtue, which ought to have ſome weight, as it ſeems to me, even with an atheiſt or ſceptic.

SECT. I.

OF THE RULE OF LIFE, AS DEDUCIBLE FROM THE PRACTICE AND OPINIONS OF MANKIND.

PROP. CXLV.

The Practice of Mankind affords a Direction, which, though an imperfect one, may, however, be of ſome Uſe in our Inquiry after the Rule of Life.

THIS follows, Firſt, Becauſe, in all the ſubordinate arts of life, we always pay great regard to the common judgment, practice, and experience of mankind, taken at an average, as one may ſay. And this is thought to be more particularly requiſite for thoſe perſons to do, who are ignorant and novices in reſpect of theſe arts. Now what is reaſonable in the inferior arts, muſt alſo be reaſonable in the art of arts, that of living happily, of attaining our *ſummum bonum*, or greateſt poſſible happineſs, here and hereafter, if there be an hereafter; which there may be, even conſiſtently with atheiſm and ſcepticiſm. There ſeems therefore a peculiar obligation, from ſelf-intereſt at leaſt, upon atheiſts and ſceptics, ſince they muſt live here upon the ſame terms as other men, and ſtand the ſame chance for an hereafter, to pay ſome deference to the practice of others, conſidered as an hint and caution how to ſecure their own intereſt.

Secondly, Mankind are evidently endued with a deſire of attaining happineſs, and avoiding miſery: and arrive at a competent knowledge of the means, which lead to this end. I have, in the foregoing part of this work, endeavoured to ſhew how this deſire and knowledge are generated. But the fact is certain and obvious, whether that account be ſatisfactory or no.

Thirdly, Thoſe who admit a benevolent author of nature, in any ſenſe of theſe words, will be inclined to believe, that mankind muſt in ſome degree be fitted to attain happineſs; and alſo, in conſequence thereof, attain it in fact. And even atheiſtical and ſceptical perſons, when they ſee how blind fate, or nature, or whatever term elſe they think fit to uſe, gives to all animals appetites, inſtincts, and objects, in general, ſuited to their well-being, ought, from an argument of induction, to expect ſomething analogous to this in mankind, previouſly to their inquiry into the fact.

It appears therefore, that the practice of mankind, taken at an average, may be of ſome uſe to us in our inveſtigation of the rule of life; and yet theſe ſame conſiderations ſhew, that the light thereby afforded can be no more than a very imperfect one. The error, irregularity, and miſery, which are every where conſpicuous, prove at once, that the practice of mankind is no infallible guide.

PROP.

PROP. CXLVI.

The Opinions of Mankind afford an imperfect Direction in reſpect of the Rule of Life, which is preferable to that drawn from their Practice.

THAT the opinions of mankind, concerning the means of obtaining happineſs, are both of real uſe, and yet an imperfect rule in many reſpects, will appear, if we apply the reaſoning uſed in the foregoing propoſition to them.

That this imperfect rule is, however, preferable to that drawn from the mere practice, follows, inaſmuch as the opinions of mankind are, in general, formed after experience, and often upon mature deliberation, when they are free from the violent impulſes of their appetites and paſſions, and at a more proper and equal diſtance from the objects under conſideration, than can well be at the time of action.

PROP. CXLVII.

The Rule of Life drawn from the Practice and Opinions of Mankind, taken at an Average, is favourable to the Cauſe of Virtue.

I will firſt conſider the rule ſuppoſed to be taken from the mere practice of mankind. Now it appears at firſt ſight, that this rule would exclude all eminent degrees both of virtue and vice. A perſon who ſhould be ſimilar to the whole aggregate of mankind, conſidered as one great individual, would have ſome ſeeds and ſhoots of every virtue, and every vice, and yet none in an eminent degree: his virtues and vices would only exert themſelves, when called forth by ſtrong motives and occaſions: in which caſes, however, this fictitious perſon, this type and repreſentative of the whole ſpecies, would not fail to ſhew, that he had all kinds of good and bad diſpoſitions, all balancing and reſtraining one another, unleſs where extraordinary incidents turn the ſcale in favour of each particular reſpectively: ſo that, if the mere practice of mankind ſhould be thought ſufficient to ground a rule upon, we ſhould be directed by this to avoid all great degrees both of virtue and vice, and to keep our appetites and paſſions in ſubjection to one another, ſo as that none ſhould prevail over the reſt, unleſs upon particular extraordinary occaſions. And a perſon, formed according to this model, would be reckoned a neutral, moderate, prudent man, not much loved or hated by thoſe with whom he converſed; however, reſpected and regarded, rather than otherwiſe. We may alſo ſuppoſe, that his life would be much chequered with happineſs and miſery; and yet, for the moſt part, be void of all high degrees of either; upon the whole, probably rather happy, than miſerable. And thus the practice of mankind would, as it appears to me, lead to a low degree both of virtue and happineſs, and exclude all that violence and exorbitancy of paſſion and appetite, which is one chief ſource and occaſion

of

of vice. For almoſt all kinds of vice are the exceſſes, and monſtrous offſprings, of natural appetites; whereas the virtues are, in general of a moderate nature, and lie between the two extremes. That moderation therefore, which the practice of mankind, taken ſo as to make the oppoſite extremes balance each other, directs us to, muſt, upon the whole, be more favourable to virtue than to vice.

Let us next inquire to what rule of life the opinions of mankind would lead us, or how far the ſeveral virtues or vices are generally eſteemed to conduce to happineſs or miſery. Now, as the general practice of mankind excludes all groſs vices, ſo does the general opinion, but in a ſtronger manner. It does alſo exclude all eminent virtues; but then it does this in a weaker manner than the general practice; and, upon the whole, it turns the ſcale greatly in favour of virtue, and againſt vice, as means of private happineſs; as will immediately appear, if we conſider the particular virtues and vices of temperance and intemperance, meekneſs and anger, beneficence and avarice, gratitude and ingratitude, &c. as oppoſed to, and put in competition with, each other, in the judgment of mankind. And yet it does not ſeem by any means, that, according to the general opinion of mankind, the greateſt degree of virtue has the faireſt proſpect for happineſs in this world.

But then, with reſpect to that other world, for which there is at leaſt this preſumption of general opinion, we have almoſt an univerſal conſent, of all ages and nations, that all degrees of virtue and vice will there meet with their proper and proportional reward and puniſhment. Now an impartial ſceptic muſt either enter the liſts, and fairly conſider what arguments there are for or againſt a future ſtate, and reaſon upon the ſubject, *i. e.* ceaſe to be a ſceptic; or elſe this general opinion of mankind in favour of a future ſtate muſt, for the mechanical reaſons alleged in the firſt part of this work, give ſome degree of determination to him here, as in other caſes, where the mind is perfectly *in æquilibrio*. For the ſame reaſons, the almoſt univerſal conſent of mankind in the ſuperior advantages of virtue in a future ſtate, by them ſuppoſed, ought to have ſome weight with ſuch a perſon, even though he ſhould ſtill remain *in æquilibrio*, as to the opinion of a future ſtate, becauſe then it would be as probable as the other ſide of the queſtion.

And, upon the whole, we may make the following concluſions.

1. That a perſon who ſhould form his life partly upon the practice of mankind, and partly upon their opinions, would incline conſiderably to the ſide of virtue.

2. That, if he thought the rule drawn from the opinions of mankind preferable to that drawn from their practice, according to the laſt propoſition, he muſt incline more to the ſide of virtue.

3. That, if the future ſtate, which commences at the expiration of this life, be ſuppoſed of indefinitely more value than it, and certain, he ought to adhere ſtrictly to virtue, and renounce all vice. And the concluſion will be the ſame, though there be only a ſtrong, or a moderate probability, or even an equal chance, nay, I might almoſt

almoſt ſay, a bare poſſibility, of the reality, and great importance, of a future life; ſince what he would forfeit in this life by a ſtrict adherence to virtue, is confeſſedly of ſmall importance in common caſes.

4. That all great degrees of vice are contrary to the common ſenſe, practice, and experience of mankind.

5. And therefore, laſtly, If a man gives himſelf up to vicious courſes, pretending cool rational ſcepticiſm and uncertainty in religious matters, he muſt either deceive himſelf, or endeavour to impoſe upon others. A perſon who lay entirely afloat, would from the ſuſceptibility of infection, allowed by all, and above explained from our frame, ſuffer himſelf to be formed by the practices and opinions of mankind at an average, *i. e.* would incline to the ſide of virtue: and therefore a perſon who inclines the contrary way, muſt be drawn aſide from the neutral point of ſcepticiſm by ſecret prejudices and paſſions.

It may be objected to the reaſoning uſed in the former part of this propoſition, that whatever be the opinions of mankind, their practice at an average is by no means at an equal diſtance from perfect virtue, and groſs vice; but approaches much nearer to the latter extreme: and that this appears both from the obſervation of the facts, and from the declarations of the ſcriptures.

Firſt, then, Let us conſider the obſervation of the facts. And here the objectors will be ready to heap together the many inſtances of violence, revenge, cruelty, injuſtice, ingratitude, treachery, want of natural affection, brutal ſenſuality, anger, envy, moroſeneſs, ambition, avarice, and ſelfiſhneſs, which hiſtory and experience, public and private, are able to furniſh; and will urge, that a perſon who ſhould copy after mankind taken at a medium, would be a very ſenſual, ſelfiſh, malevolent, and every way vicious creature. And it muſt be confeſſed, nay, I am ſo far from denying, that I every where ſuppoſe, and lay down as a principle, that there is much corruption and wickedneſs all over the world. But that the moral evil in the world exceeds the moral good, would be very difficult to prove.

For, Firſt, How ſhall we make the computation? Who ſhall ſum up for us all the inſtances of the foregoing and other vices, and weigh them in a juſt balance againſt the contrary inſtances of love to relations, friends, neighbours, ſtrangers, enemies, and the brute creation; of temperance and chaſtity, generoſity, gratitude, compaſſion, courage, humility, piety, reſignation, &c? The caſe between the virtues and the vices, *i. e.* between moral good and evil, ſeems to reſemble that between pleaſure and pain, or natural good and evil. The inſtances of pleaſure are, in general, more numerous, but leſs in quantity, than thoſe of pain; and though it is impoſſible to ſpeak with certainty, becauſe no man can be qualified to make the eſtimate, yet pleaſure ſeems to prevail upon the whole. In like manner, the inſtances of benevolence of ſome kind or other, though mixed with many imperfections, of a partial ſelf-government, of a ſuperſtitious, enthuſiaſtic, idolatrous, or lukewarm piety, one or other, occur in almoſt all the moſt

familiar

familiar circumſtances of human life, and intermix themſelves with the moſt common, ordinary thoughts, words, and actions: whereas the inſtances of ſenſuality, malevolence, and profaneneſs, are rarer, as it ſeems, though often of a more glaring nature.

Secondly, The imperfection of virtue, which I allow, and even lay down in mankind in general, makes them, in general, apt to magnify the vices of others. Perfect virtue may be ſuppoſed to be but juſt perfectly candid and equitable; and therefore imperfect virtue is moſt probably too cenſorious, eſpecially ſince men, by blaming others, hope to exculpate or exalt themſelves. And, agreeably to this, common experience ſhews, that bodily infirmities, diſappointments, pride, ſelf-indulgence, and vice of all kinds, diſpoſe men to look upon the dark ſide of every proſpect, and to magnify the evils natural and moral, that are in the world, both in their own thoughts, and in their diſcourſes to others. It is alſo to be added here, that as our opinions are more in favour of virtue than our practice, ſo our rule of judging muſt of conſequence much condemn the general practice. This circumſtance is very neceſſary for the moral improvement of the world; but, if over-looked, it may miſlead in the preſent inquiry.

Thirdly, The greater intenſeneſs of the particular pains above the correſponding pleaſures in general, and of the particular vices above the oppoſite virtues, as juſt now mentioned, tends, for moſt eminent and beneficent final cauſes in both caſes, to affect the imagination and memory with ſtronger and more laſting impreſſions, ſo as to occur more readily to the invention in all inquiries and ſpeculations of this kind.

Fourthly, If we ſuppoſe, that natural good prevails, upon the whole, in the world, analogy ſeems to require, that moral good (which is, in general, its cauſe) ſhould alſo prevail in like manner. Farther, as we judge, that natural good prevails from the general deſire of life, the pleaſure of recollecting perſons and places, and renewing our acquaintance with them, &c. ſo the ſame things ſeem to determine, that mankind is, upon the whole, rather amiable and reſpectable, than hateful and contemptible, *i. e.* rather virtuous than vicious.

Laſtly, it is to be obſerved, that, in an accurate way of ſpeaking, virtue and vice, are mere relative terms, like great and little. Whence the average of mankind may be conſidered as a middle point between the poſitive and negative quantities of virtue and vice, as a neutral ſituation. And, upon this ſuppoſition, we might firſt ſhew, that it is man's greateſt intereſt, his *ſummum bonum*, at leaſt, to be neutral; and afterwards, that he ought to preſs forward with all poſſible earneſtneſs towards the infinite perfection of God, though ever at an infinite diſtance. For, as every finite length is infinitely nearer to nothing, than to a metaphyſically infinite one (to make this ſuppoſition for argument's ſake); ſo all finite virtue is infinitely more diſtant from the infinite perfection of God, than from nothing. And thus indeed all our righteouſneſs is *filthy rags*, and all our virtue infinite vice. But this method of conſidering the preſent ſubject is far from oppoſing the purport of this ſection.

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If we ſhould call all mere ſelf-regards vice, and all regards to God, and our neighbour, virtue; which is a very proper language, and one that would render the terms of this inquiry preciſe; it ſeems probable to me, that virtue abounds more, upon the whole, than vice. A view to the good of others, at leaſt near relations, is a general motive to action; and a deſign to pleaſe God, at leaſt not to offend him, is very common in the bulk of mankind, or even the worſt. The moſt ordinary and trivial actions are performed without any explicit view at all, at leaſt any that we remember a few moments after the action, *i. e.* are automatic ſecondarily; and ſo cannot be conſidered as either virtuous or vicious; or, if they be, we muſt judge of their complexion by that of the more eminent ones.

Secondly, It may be objected, that, according to the ſcriptures, mankind are in a loſt fallen ſtate; *that they are all gone out of the way, and become corrupt and abominable; that there is none that doth good*, &c. I anſwer, that theſe and ſuch like expreſſions ſeem to refer to a former ſtate of innocence in paradiſe, to a future kingdom of righteouſneſs, promiſed in both the Old and New Teſtament, and to the rule of life laid down there, with the conditions requiſite to our admittance into this happy ſtate: and that, in this view of things, the virtue of mankind in general is as deficient, as their happineſs falls ſhort of the joys of the bleſſed; agreeably to which, the preſent life is, in the ſcripture, repreſented as a ſcene of vanity, labour, and ſorrow. And it is a moſt important and alarming conſideration, that the common virtue of mankind will not entitle us to a future reward after death; *that few ſhall find the ſtraight gate; and that, unleſs our righteouſneſs exceed that of the Scribes and Phariſees, we can in no wiſe enter into the kingdom of heaven*, here or hereafter. But then, as, notwithſtanding the curſe paſſed upon man, and upon the ground, God is repreſented in ſcripture *as opening his hand, and filling all things living with plenteouſneſs*, as being kind to all, and manifeſting his infinite and inviſible goodneſs by viſible things, *i. e.* as making natural good to prevail upon the whole, that ſo we may, on this account, be thankful to him, and love him with all our hearts, as he commands; ſo the correſponding precept of loving our neighbour as ourſelves, ſeems to infer, that our neighbour is amiable upon the whole. And we may ſuppoſe, that moral good prevails in general, in a degree proportional to the prevalence of natural good: or, however we underſtand the ſcripture language on this head, it cannot be contrary to the foregoing reaſoning. It muſt appear from thence, that we ought to be, at leaſt, as good as mankind at a *medium*, in order to obtain the *medium* of happineſs; and that, if we have higher views, our road lies towards the infinite perfection of virtue, towards ſpirituality, benevolence, and piety, and not towards ſenſuality, ſelfiſhneſs, or malevolence.

PROP. CXLVIII.

The Rule of Life drawn from the Practice and Opinions of Mankind, corrects and improves itſelf perpetually, till at laſt it determines entirely for Virtue, and excludes all Kinds and Degrees of Vice.

For, ſince the imperfect rule, drawn in the laſt propoſition, is, at leaſt, ſo favourable to virtue, as to exclude all great vices, we may conclude, that all groſsly vicious perſons ought to be left out in collecting the rule of life from the practice and opinions of mankind; and that our rule will approach nearer to a perfect one thereby. And as this our ſecond rule, taken from the virtuous and ſuperior orders of the vicious, determines more in favour of virtue, than our firſt, taken indifferently from all the orders both of the virtuous and vicious, ſo it will engage us to exclude more of the vicious from our future eſtimate; and ſo on, till at laſt we determine entirely in favour of virtue. At leaſt, this is a preſumption, which riſes up to view, when we conſider the ſubject in the method here propoſed. Since it appears from the firſt general conſideration of the practice and opinions of mankind, that groſsly vicious perſons muſt be unhappy, it is not reaſonable to allow them any weight in determining what is the proper method for attaining the greateſt poſſible happineſs. And as the ſame obſervation recurs perpetually, with reſpect to all the orders of the vicious, we ſhall at laſt be led to take the moſt virtuous only, as the proper guides of life.

Groſsly vicious perſons may alſo be excluded, from the manifeſt blindneſs and infatuation in common affairs, which attends them; and as this extends to the vice of ſenſuality in particular, ſo this vice may be farther excluded from that tendency of our natures to ſpirituality, in our progreſs through life, which is allowed by all, and explained in the foregoing part of this work upon the principle of aſſociation. Malevolence is alſo excluded, becauſe it is itſelf miſery; and, by parity of reaſon, benevolence muſt be a proper recommendation for thoſe, whoſe example and judgment we would follow in our endeavours after happineſs. And it does not appear in this way of propoſing theſe matters, that the ultimate ratio of things admits of any limit to our ſpirituality or benevolence, provided we ſuppoſe, that, at the expiration of this life, a progreſſive ſcene of the ſame kind commences.

The method of reaſoning here uſed bears ſome reſemblance to, and is ſomewhat illuſtrated by, the method of approximation practiſed by mathematicians, in order to determine the roots of equations to any propoſed degree of exactneſs. Farther, as it is common in infinite ſerieſes for the three or four firſt terms either to ſhew what the whole ſeries is, or, at leaſt, that it is infinite; ſo here the ever-growing and ſuperior excellence of ſpirituality and benevolence, which the foregoing conſiderations open to view, by recurring perpetually, and correcting the immediately precedent determination in every ſtep, may incline one to think, in correſpondence to that method

of

of reaſoning in ſerieſes, that ſpirituality and benevolence ought to be made infinite in the ultimate ratio which they bear to ſenſuality and ſelfiſhneſs.

But this method of reaſoning may alſo be illuſtrated, in a more popular way, by applying it to more obvious inquiries. I will give two inſtances of this, the firſt in the health of the body natural, the ſecond in the welfare of the body politic.

Suppoſe then that a perſon entirely ignorant of phyſic, theoretical and practical, and diſpoſed to treat it as mere gueſs work and uncertainty, ſhould, however, be deſirous to know, ſince he muſt eat, what diet is moſt conducive to health. The firſt and moſt obvious anſwer will be, the general diet of mankind; becauſe this is the reſult of general experience, and of the natural appetites, which are in ſo many other inſtances fitted to the objects themſelves, and to the uſes and pleaſures, public and private, of human life. And thus the inquirer would be reſtrained from all groſs exceſſes in the quantity or qualities of his diet. But if he farther obſerves, that the opinions of mankind tend more to moderation in diet, than their practice; and that both the practice and opinions of thoſe who appear by other criterions to be the beſt judges, tend more to moderation than thoſe of mankind at an average; and, laſtly, that the ſenſual and intemperate ought entirely to be excluded from having any ſhare in determining this inquiry; this will lead him to great moderation in diet, or even to abſtemiouſneſs.

In like manner let it be aſked, what principles of government are moſt conducive to the public welfare? Are private virtues, or private vices, moſt to be encouraged? Here indeed the anſwer drawn from the average of ſtates will not be an exact medium between both, ſo as to diſcourage all the virtues, and all the degrees of them, as much as the vices, and their degrees; and *vice verſa*, to encourage both equally; but will, upon the whole, be greatly favourable to virtue. However, ſince avarice, vain-glory, reſentment, luxury, &c. are in certain reſpects, even promoted, and the greateſt virtues ſometimes perſecuted, the practice of legiſlators and magiſtrates, in enacting and enforcing laws, will not be entirely favourable to virtue. But then, if we take their opinions, eſpecially thoſe of the legiſlators the moſt celebrated for wiſdom, and leave out barbarous nations, infant ſtates as yet unſettled, and ſuch as approach near to their diſſolution, the average from the remainder will give the advantage to virtue more and more perpetually. And it may be remarked of both theſe inſtances, that they prove in part the thing to be illuſtrated by them, being not mere emblems only, but in part the reality itſelf. For moderation in diet is one principal virtue, and extremely requiſite to preſerve benevolence in perfection; and health a great ingredient towards happineſs. And the public happineſs, which ariſes from the cultivation of private virtues, includes private happineſs within itſelf.

Perhaps it may not diſpleaſe the reader juſt to hint, that the ſame method of reaſoning may be made uſe of in favour of the chriſtian religion.—All ages and nations have in general believed ſome revelation. There muſt therefore be ſome true one. But the chriſtian is plainly the religion of the moſt learned and knowing part of mankind,

and is, in general, more earneſtly believed, in proportion as men are wiſer and better. If we except the *Mahometans*, the reſt of the world are mere ſavages. But mahometiſm bears teſtimony to both the Old and New Teſtament. If the unbeliever will not be determined by this himſelf, let him at leaſt allow, that the more ignorant and unlearned may be directed by it to the true religion. But then they are not to be ſuppoſed capable of making objections. Whoever has a capacity for this, has alſo a capacity to receive the proper anſwers.

It is evident, however, that obſervations of this kind, drawn from the common ſenſe and judgment of mankind, cannot carry us to great lengths with preciſion and certainty. They are very convincing and ſtriking, in reſpect of the firſt principles and rudiments; but if we would deſcend to minute particulars with accuracy, recourſe muſt be had to the ſeveral practical theories of each art.

SECT. II.

OF THE REGARD DUE TO THE PLEASURES AND PAINS OF SENSATION IN FORMING THE RULE OF LIFE.

PROP. CXLIX.

The Pleaſures of Senſation ought not to be made a primary Purſuit.

In order to ſhew this, let us put the extreme caſe of the primary purſuit of ſenſible pleaſure; and ſuppoſe, that a perſon endeavours to gratify every impulſe of his bodily appetites, however contrary ſuch gratification may be to the virtues of temperance and chaſtity. Now it is evident that ſuch a one would ſoon deſtroy the bodily faculties themſelves, thereby rendering the objects of ſenſible pleaſure uſeleſs, and alſo precipitate himſelf into pain, diſeaſes, and death, thoſe greateſt of evils in the opinion of the voluptuous. This is a plain matter of obſervation verified every day by the ſad examples of loathſome, tortured wretches, that occur which way ſoever we turn our eyes, in the ſtreets, in private families, in hoſpitals, in palaces. Whether the ſcriptures give a true account how all this ſin and miſery were firſt introduced into the world; alſo whether our reaſon be able to reconcile it with the moral attributes of God, or no; ſtill, that poſitive miſery, and the loſs even of ſenſual happineſs, are thus inſeparably connected with intemperance and lewdneſs, is an evident fact, that no unbeliever, no atheiſt, no ſceptic, that will open his eyes, can diſpute. And it is to be obſerved, that the real inſtances do not, cannot, come up to the caſe here put of a man's yielding

to

to every ſenſual inclination. The moſt groſs and debauched have had ſome reſtraints from ſome other deſires or fears, from the quarters of imagination, ambition, &c. It is evident therefore, *a fortiori*, that the mere gratification of our ſenſual appetites cannot be our primary purſuit, our *ſummum bonum*, or the rule and end of life. They muſt be regulated by, and made ſubſervient to, ſome other part of our natures; elſe we ſhall miſs even the ſenſible pleaſure, that we might have enjoyed, and ſhall fall into the oppoſite pains; which, as has been obſerved before, are in general far greater, and more exquiſite, than the ſenſible pleaſures.

That indulgence in ſenſual gratifications will not afford us our *ſummum bonum*, may alſo be inferred from the following arguments, viz. that it deſtroys the mental faculties, the apprehenſion, memory, imagination, invention; that it expoſes men to cenſure and contempt; that it brings them to penury; that it is abſolutely inconſiſtent with the duties and pleaſures of benevolence and piety; and that it is all along attended with the ſecret reproaches of the moral ſenſe, and the horrors of a guilty mind. Now it is impoſſible, as will appear from the foregoing hiſtory of aſſociation, how much ſoever a man may be devoted to ſenſual indulgences, entirely to prevent the generation of the ſeveral mental affections; but it is in our power, by an inordinate purſuit of the ſenſible pleaſures, to convert the mental affections into ſources of pain, and to impair and cut off many of the intellectual pleaſures, ſo as that the balance ſhall be againſt us upon the whole. It follows therefore from this utter inconſiſtency of the ſenſible pleaſures, when made a primary purſuit, with the intellectual ones, that they ought not to be ſo; but muſt be ſubjected to, and regulated by, ſome more impartial law, than that of mere ſenſual deſire.

The ſame thing may be concluded, in a more direct way, from the hiſtory of aſſociation. For the ſenſible pleaſures are the firſt pleaſures of which we are capable, and are the foundation of the intellectual ones, which are formed from them in ſucceſſion, according to the law of aſſociation, as before explained. Now which way ſoever we turn our view, that which is prior in the order of nature is always leſs perfect and principal, than that which is poſterior, the laſt of two contiguous ſtates being the end, the firſt the means ſubſervient to that end, though itſelf be an end in reſpect of ſome foregoing ſtate. The ſenſible pleaſures therefore cannot be ſuppoſed of equal value and dignity with the intellectual, to the generation of which they are made ſubſervient. And we might be led to infer this from the mere analogy of nature, from the numberleſs parallel inſtances which daily obſervation ſuggeſts, and without taking into conſideration the infinite beneficence of the ſupreme cauſe, which yet makes this argument much more ſatisfactory and convincing.

Nay, one may go farther, and obſerve, that as many perſons are evidently forced from the inordinate purſuit of ſenſible pleaſure by its inconſiſtency with itſelf, and with the other parts of our frame, ſo it ſeems, that, if human life was continued to an indefinite length, and yet nothing abated from the rigour of thoſe wholeſome ſeverities,

and

and penal ſufferings, which ſenſuality brings upon us, more and more individuals would perpetually be advanced thereby to a ſtate of ſpirituality; and that it would be impoſſible for any man to perſiſt for ever in ſacrificing all to his ſenſual appetites, in *making his belly his god*, upon ſuch diſadvantageous and painful terms. Intellectual deſires, (*i. e.* deſires in which no particular ſenſible pleaſure is conſpicuous, though they ariſe from a multiform aggregate of the traces of ſuch) muſt be formed, as we ſee they are in fact, in the moſt luxurious and debauched; and theſe would at laſt become ſufficient to ſtruggle with and overpower the ſenſual deſires, which would at the ſame time be weakened by aſſociations with intenſe pains and ſufferings. And this affords us a pleaſing glimpſe not only of a future ſtate, but alſo of what may be done there by ſtill greater ſeverities, for thoſe whom the miſeries of this life could not free from the ſlavery to their bodily appetites; at the ſame time that it is the ſtrongeſt incentive to us all, to apply ourſelves with earneſtneſs and aſſiduity to the great buſineſs and purport of the preſent life, the transformation of ſenſuality into ſpirituality, by aſſociating the ſenſible pleaſures, and their traces, with proper foreign objects, and ſo forming motives to beneficent actions, and diffuſing them over the whole general courſe of our exiſtence.

Laſtly, The inferior value of the ſenſible pleaſures may be deduced from their being of a confined local nature, and injuring or deſtroying prematurely, *i. e.* before the body in general comes to its period, the particular organs of each, when indulged to exceſs; whereas the intellectual pleaſures affect the whole nervous ſyſtem, *i. e.* all the ſenſible parts, and that nearly in an equal manner, on account of the varieties and combinations of ſenſible local, and of naſcent intellectual pleaſures, which concur in the formation of the mature intellectual ones; ſo that though ſome of them ſhould be indulged to exceſs, and out of due proportion to the reſt, this will be more conſiſtent with the gentle, gradual decay of the mortal body.

We may add, that the duration of mere ſenſual pleaſure is neceſſarily ſhort; and that, even when free from guilt, it cannot, however, afford any pleaſing reflections; whereas one of the principal tendencies of our natures is, and muſt be, from the power of aſſociation in forming them, to the pleaſures of reflection and conſciouſneſs. In like manner, the evident uſe and reſtriction thereto of one of the principal ſenſible pleaſures to preſerve life and health, with all the conſequent mental faculties, and executive bodily powers; of the other to continue the ſpecies, and to generate and enlarge benevolence; make the ſubordinate nature of both manifeſt in an obvious way, and without entering minutely into the hiſtory of aſſociation: at the ſame time that theſe remarks, when further purſued, unite with that hiſtory, and are eminent parts of the foregoing argument, taken directly from thence.

Thus it appears, that the pleaſures of ſenſation ought not to be made the primary purſuit of life; but require to be reſtrained and directed by ſome foreign regulating power. What that power is, I now come to ſhew in the next propoſition.

PROP.

PROP. CL.

The Purſuit of ſenſible Pleaſure ought to be regulated by the Precepts of Benevolence, Piety, and the moral Senſe.

THIS may be proved by ſhewing, that the regulation of our ſenſible pleaſures, here propoſed, will contribute both to their own improvement, and to that of the other parts of our natures.

Now benevolence requires, that the pleaſures of ſenſe ſhould be made entirely ſubſervient to the health of the body and mind, that ſo each perſon may beſt fill his place in life, beſt perform the ſeveral relative duties of it, and prolong his days to their utmoſt period, free from great diſeaſes and infirmities; inſtances of which have much authority, and a very beneficial influence, in the world. All gratifications therefore, which tend to produce diſeaſes in the body, and diſturbances in the mind, are forbidden by benevolence, and the moſt wholeſome diet as to quantity and quality enjoined by it. The rules of piety are to the ſame purpoſe, whether they be deduced from our relation to God, as our common father and benefactor, who wills that all his children ſhould uſe his bleſſings ſo as to promote the common good thereby; or from the natural ſignatures of his will in the immediate pleaſures and advantages ariſing from moderate refreſhment, and the manifeſt inconveniencies and injuries cauſed by exceſs in quantity or quality; or from his revealed will, by which temperance is commanded, and all intemperance ſeverely threatened. In like manner, the moral ſenſe directs us implicitly to the ſame moderation, and government of our appetites, whether it be derived explicitly from the foregoing rules of piety and benevolence, or from ideas of decency, rational ſelf-intereſt, the practice of wiſe and good men, the loathſomeneſs of diſeaſes, the odiouſneſs and miſchiefs of violent paſſions &c. It is evident therefore, that all theſe three guides of life lead to the ſame end, viz. great moderation in ſenſual enjoyments, though they differ ſomewhat in their motives, and the commodiouſneſs of their application as a rule in the particular occurrences of life.

It is evident at the ſame time, that we are no loſers, in reſpect of the ſenſible pleaſures, by this ſteady adherence to moderation. Our ſenſes, and bodily faculties, are by this means preſerved in their perfection; ſo as to afford the natural exquiſite gratification, and to enable us to perform the ſeveral animal functions with eaſe and pleaſure, and to carry us on to old age with all the integrity of theſe ſenſes and faculties, that is conſiſtent with the neceſſary decay and diſſolution of our earthly body. The ſame moderation and health ariſing from it, inſpire men with perpetual ſerenity, cheerfulneſs, and good-will, and with gratitude towards God, who *gives us all things richly to enjoy*, and the ſenſible pleaſures in particular, as the means and earneſt of far greater, both

here

here and hereafter. Now it is obſervable in the common intercourſes of life, that aſſociated circumſtances add greatly to our pleaſures. Thus the pleaſure of receiving a thing from a friend, of making a friend partaker of it, of ſociality and mirth at the time of enjoyment, &c. greatly enhance the gratifications of taſte, as in feaſts, and public entertainments. Much more then may the pure and exalted pleaſures of benevolence and piety, *the eating and drinking to the glory of God* improve theſe pleaſures.

And as we are no loſers, but great gainers, upon the whole, by religious abſtemiouſneſs, in reſpect of the ſenſible pleaſure: ſo are we much more obviouſly ſo, in reſpect of the ſenſible pains and ſufferings, which the intemperate bring upon themſelves. Theſe are of the moſt exquiſite kind, and often of long duration, eſpecially when they give intervals of reſpite, thus exceeding the inventions of the moſt cruel tyrants. They impair the bodily and mental faculties, ſo as to render moſt other enjoyments imperfect and inſipid, diſpoſe to peeviſhneſs, paſſion, and murmuring againſt Providence, and are attended with the horrors of a guilty mind. It follows therefore, that he who would obtain the *maximum* of the ſenſible pleaſures, even thoſe of taſte, muſt not give himſelf up to them; but reſtrain them, and make them ſubject to benevolence, piety, and the moral ſenſe.

Cor. Beſides the ſenſible pains, which exceſſes bring upon men, there are ſome which occur in the daily diſcharge of the functions of life, from fatigue, labour, hardſhips, &c. Now it follows from the ſame method of reaſoning, as that uſed in the two foregoing propoſitions, that the proper method of avoiding theſe pains is not to aim at it directly, but in every thing to be guided by the precepts of benevolence, piety, and the moral ſenſe; and that delicate and effeminate perſons endure more from this head of ſufferings, than the charitable and devout, who *go about doing good*, at the apparent expence of their eaſe and quiet.

PROP. CLI.

To deduce practical Rules concerning Diet.

What that moderation in diet is, which would moſt contribute to the health of the body and mind, and conſequently which duty requires, is difficult to determine in particular caſes. The following ſubordinate rules may, however, afford ſome aſſiſtance in this matter.

Firſt, then, It is neceſſary to abſtain from all ſuch things as the common experience of mankind determines to be unwholeſome, either in general, or to the particular perſons who make the inquiry. There are indeed ſome vulgar errors of this kind, that are generally received, and which, by being obſerved, may a little abridge one's liberty, without uſe or neceſſity. However, this is of ſmall moment, in compariſon of the dangers ariſing from the free uſe of meats and drinks found by the repeated obſervation

obſervation of thoſe who have made the trial, to be hurtful, generally or particularly. There ſtill remains, after all theſe are ſet aſide, a ſufficient variety of things approved as wholeſome by the ſame common experience, to anſwer all the purpoſes of life, health, and even ſenſible pleaſure. This rule will be farther explained by thoſe that follow.

Secondly, We ought either totally to abſtain from, or, however, to uſe with great caution and moderation, all foods of high reliſh, whoſe taſtes and ſmells are pungent and acrid; all which, though made grateful by cuſtom, are at firſt diſagreeable; all which bear a great affinity in taſte, ſmell, and generical or ſpecific characteriſtics, to ſuch as are known to be hurtful; which are poiſonous during a particular ſtate, previous to coction, or other preparation; which are uncommon, or which have very particular effects upon the functions and ſecretions. For all theſe things are ſigns of active properties in the foods to which they belong, and ſhew them to be rather proper for medicines, than for common diet; to be bodies which by an extraordinary efficacy may reduce the ſolids and fluids back to their natural ſtate, when they have deviated from it; and therefore which are very unſuitable to the natural ſtate.

We may conſider farther, that ſtrong taſtes, ſmells, &c. are according to the modern philoſophy, marks of great powers of attraction and coheſion in the ſmall component particles of natural bodies. Since therefore it is the manifeſt deſign of the deſcending ſerieſes of arteries in animals to ſeparate the particles of their aliment from each other, alſo the particles of theſe particles, &c. that ſo the ſmalleſt particles, or the *minima diviſibilia*, meeting in the veins, may unite according to their reſpective ſizes, and mutual actions, *i. e.* to ſeparate what is heterogeneous, and congregate what is homogeneous, a great difficulty and burden muſt be laid upon the circulation, and upon what is called nature in the body, by all highly agreeable flavours; and, unleſs a proportional degree of muſcular action impels the blood forward, particles of an undue ſize muſt remain undivided, and form obſtructions, which may either never be removed, or not till the obſtructing particles become putrid; and thus, being diſſolved, and mixed with the animal juices, infect them with putreſcence.

Still farther, it may be remarked, that the ſame active particles in foods are probably the ſources and recruits of that nervous power, or of ſome requiſite to it, by which animal ſenſation and motion, and, by conſequence, intellectual apprehenſion and affection, and their effects upon the body, are carried on. Now it is evident, that affection raiſed to a certain height, and executive powers ready to anſwer the firſt call, are a mental diſeaſe of the moſt pernicious tendency. High-reliſhed aliments, which generate it, are therefore carefully to be avoided, on one hand; as a very inſipid diet, on the other, ſeems inſufficient to qualify us for performing the requiſite functions of life. But there is little danger of erring on this hand, our appetites being but too ſenſibly gratified with the high reliſhes. We may add, as nearly allied to theſe conſiderations, that by ſtoring our blood, and the ſolids thence formed with active properties, we lay up matter for future pains, both bodily and mental, whenever either body or mind

become diſordered, at the ſame time that a high diet has, as we ſee, an evident tendency to diſorder both.

This ſecond rule coincides, for the moſt part, with the firſt; and may be made uſe of to extend and confirm it. Thoſe meats and drinks, which are found by experience to be hurtful, have, for the moſt part, high reliſhes. We may therefore determine againſt an aliment of a high flavour from a narrower experience, than againſt one of a common moderate flavour. And it is very neceſſary to attend to this criterion, ſince the beſt obſervations upon diet are much perplexed by foreign circumſtances.

Thirdly, All liquors, which have undergone vinous fermentation, ſince they obtain thereby an inflammable, inebriating ſpirit, have from this inebriating quality, which impairs reaſon, and adds force to the paſſions, a mark ſet upon them, as dangerous not only on this account, but on others, to bodily health, &c. and as either totally to be avoided, or not to be uſed, except in ſmall quantities, and rarely. The general agreeableneſs of wines and fermented liquors to the taſte, their immediate good effects in languors, dejections, and indigeſtion, and their exhilarating quality, when taken ſparingly, are indeed arguments to ſhew, that there may be a proper uſe of them. But this ſeems rather to be that of medicines, or refreſhments upon ſingular occaſions than of daily food.

It may perhaps be, that the changes produced in the earth at the deluge did ſo alter the nature of vegetable juices, as to render them then firſt capable of producing an inflammable inebriating ſpirit by fermentation; and that this alteration in the juices of vegetables had a principal ſhare in ſhortening the life of man; perhaps of other animals, which laſt might farther contribute to the firſt. So great an event as the deluge may well be ſuppoſed to make a great alteration in all the three kingdoms, mineral, vegetable, and animal. We are ſure of the firſt from natural hiſtory, and of the laſt from the ſcriptures, which relate the gradual ſhortening of man's life after the flood. And the account of *Noah*'s drunkenneſs ſeems to intimate, that it was ſomething new and unexpected. The connection of the three kingdoms with each other is alſo ſo great, that we may reaſonably infer a change in any one, either as a cauſe, or as an effect, from finding it in the other two. However, the ſin of our common parent *Noah*, and his expoſing his nakedneſs, which alſo bears ſome reſemblance to the immediate conſequence of *Adam*'s tranſgreſſion, ought to make us particularly upon our guard. At the ſame time ſeveral other paſſages of ſcripture ſeem fairly to intimate, that there is an allowable uſe of wine in the intercourſes of human life, as where *wine* is ſaid *to make glad the heart of man*, and therefore to be matter of praiſe; our Saviour's turning water into wine; his bleſſing it at his laſt ſupper, and making it the repreſentative of his blood; and St. *Paul*'s advice to *Timothy*. But very great caution ought to be uſed in this point. The inebriating quality of fermented liquors, by diſordering the mind, is a ſtrong evidence, that they are alſo hurtful to the body, both becauſe of the intimate connection between body and mind, and becauſe all the beneficent

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ends of Providence are anſwered always by one and the ſame means, and contre in one and the ſame point. Whenever therefore we deviate in one reſpect, we muſt deviate in all. The abſtinence from wine enjoined upon the *Nazarites* at all times, and upon the prieſts during their miniſtration, appears to be a ſtrong intimation of the unſuitableneſs of wine to thoſe who aim at perfection; who would deviate as little as poſſible from the divine life.

This third rule coincides remarkably with both the firſt and ſecond. The ill effects of fermented liquors, when indulged in, are evident from experience; and their high flavours are a principal temptation to an immoderate uſe of them.

Fourthly, With reſpect to animal diet, let it be conſidered, that taking away the lives of animals, in order to convert them into food, does great violence to the principles of benevolence and compaſſion. This appears from the frequent hard-heartedneſs and cruelty found amongſt thoſe perſons, whoſe occupations engage them in deſtroying animal life, as well as from the uneaſineſs which others feel in beholding the butchery of animals. It is moſt evident, in reſpect of the larger animals, and thoſe with whom mankind have a familiar intercourſe, ſuch as oxen, ſheep, domeſtic fowls, &c. ſo as to diſtinguiſh love, and compaſſionate individuals. Theſe creatures reſemble us greatly in the make of the body in general, and in that of the particular organs of circulation, reſpiration, digeſtion, &c. alſo in the formation of their intellects, memories, and paſſions, and in the ſigns of diſtreſs, fear, pain, and death. They often likewiſe win our affections by the marks of peculiar ſagacity, by their inſtincts, helpleſſneſs, innocence, naſcent benevolence, &c. And if there be any glimmering of the hope of an hereafter for them, if they ſhould prove to be our brethren and ſiſters in this higher ſenſe, in immortality as well as morality, in the permanent principle of our minds, as well as the frail duſt of our bodies, if they ſhould be partakers of the ſame redemption as well as of our fall, and be members of the ſame myſtical body, this would have a particular tendency to increaſe our tenderneſs for them. At the ſame time the preſent circumſtances of things ſeem to require, that no very great alteration ſhould be made in this matter: we ourſelves are under the ſame law of death, and of becoming food to our fellow-animals; and philoſophy has of late diſcovered ſuch numberleſs orders of ſmall animals in parts of diet formerly eſteemed to be void of life, and ſuch an extenſion of life into the vegetable kingdom, that we ſeem under the perpetual neceſſity, either of deſtroying the lives of ſome of the creatures, or of periſhing ourſelves, and ſuffering many others to periſh. This therefore ſeems to be no more than an argument to ſtop us in our career, to make us ſparing and tender in this article, and put us upon conſulting experience more faithfully and impartially, in order to determine what is moſt ſuitable to the purpoſes of life and health, our compaſſion being made by the foregoing conſiderations, in ſome meaſure, a balance to our impetuous bodily appetites. At leaſt, abſtinence from fleſh-meats ſeems left to each perſon's choice, and not neceſſary, unleſs in peculiar circumſtances.

The doctrine of the ſcriptures on this head appears very agreeable to theſe dictates of ſympathy. For *Noah*, and we in him, received a permiſſion from God to eat fleſh; and that this was no more than a permiſſion, may be concluded from its not being given to *Adam*, from the ſhortening of human life after the flood, from the ſtrict command concerning blood, from the *Iſraelites* being reſtrained from animal food for forty years during their purification and inſtitution in religion in the wilderneſs, from the diſtinction of animals into clean and unclean, from the burning of part in ſacrifice, and ſometimes the whole, from the practice of many *Jews* and *Chriſtians* particularly eminent for piety, &c. All theſe may be conſidered as hints and admonitions to us, as checks and reſtraints upon unbridled carnal appetites and luſts: at the ſame time that our Saviour's partaking in meats with all kinds of men, and many expreſs inſtances and teſtimonies both in the Old and New Teſtament, as particularly the command to eat the paſchal lamb, and other ſacrifices, remove all ſcruple from thoſe perſons who eat with moderation, and in conformity to the rules of piety, benevolence, and the moral ſenſe.

The coincidence of this fourth rule with the firſt and ſecond appears in the ſame manner as that of the third with them.

Fifthly, Having laid down theſe four rules concerning the quality of our aliments, I come next to obſerve, that the quantity ought ſcarce ever to be ſo much as our appetites prompt us to, but, in general, to fall a little ſhort of this. The goodneſs of this rule is verified by common obſervation; nay, one may affirm, that ſmall errors in the quality of our diet may be quite rectified by a proper moderation in reſpect of quantity; whereas a tranſgreſſion in regard to quantity cannot be compenſated by the innocence of the aliment. Such a tranſgreſſion is, however, more rare, where the quality of the aliment is not improper.

Here it may be aſked how it comes to paſs, that the appetites ſhould, in ſome inſtances, be the beſt guides to us both in reſpect of quality and quantity, and in moſt ſo to the brute creation; and yet, in other inſtances, be ſo greatly apt to miſlead us, to hurry us on to pain, diſeaſes, and death, and theſe not rare and ſingular ones, but the moſt frequent and ordinary that occur. Almoſt every man is tempted by fruits, by wines, natural and artificial ſavours, and high reliſhes, &c. to tranſgreſs either in quantity or quality. Now to this we may anſwer, that in young children the appetites deviate very ſeldom, and very little, from what is moſt conducive to the body; and that they would probably deviate leſs, were children conducted better, were not their taſtes and appetites perverted and corrupted by cuſtoms and practices derived from our corruptions, or our ignorance. This may, at firſt ſight, ſeem harſh, in reſpect of them: but it is at the ſame time a ſtrong inſtance and argument, amongſt many others, of the intimate connection and ſympathy, that unite us all to each other, of our being members of the ſame myſtical body, and of the great ſyſtem of the world's being a ſyſtem of benevolence; and thus it concurs to eſtabliſh the fundamental poſition of

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theſe papers. However, theſe perverſions and corruptions, from whatever cauſe they ariſe, ſeldom grow to a great height, till ſuch time as children arrive at years of diſcretion in a certain degree, till they get ſome ideas of fitneſs, decency, obedience to ſuperiors, and to God, conſcience, &c. Now, at firſt indeed, the child is mere body, as it were; and therefore it is not at all incongruous to ſuppoſe, that he may be directed by mere bodily appetites and inſtincts. But, when the mental faculties are generated, he then becomes a compound of body and mind; and conſequently it would be incongruous to ſuppoſe him directed in any thing that affects both body and mind, as diet plainly does, by mere bodily appetites. On the contrary, his rule ought now to be a compound of bodily and mental inſtincts, inclinations, admonitions, &c. directing, influencing, and aſſiſting one another. Let this be ſo, and the child or man will very ſeldom deviate from what is moſt conducive to health and happineſs of all kinds. And it is to be obſerved, that the bodily pains and ſufferings, which follow from yielding to mere bodily appetites, in oppoſition to mental conviction, are one principal means, by which the authority and influence of conſcience are eſtabliſhed with reſpect to other branches of deſire. And when a perſon, from theſe or other motives, reverſes his own ſteps in reſpect of the pleaſures of taſte, the irregularity and inordinateneſs of the bodily appetites decline by the ſame degrees, as they grew exceſſive through unlawful gratification. So that, after a perſon has governed himſelf, for a conſiderable time, with ſtrictneſs, from a ſenſe of duty, he will find little difficulty afterwards. The natural appetites will themſelves become the proper ſubſtitutes of benevolence, piety, and the moral ſenſe, and direct a man what and how much is requiſite.

All this reaſoning is confirmed by the obſervation before made on brutes. They continue mere body, as it were, to the laſt; and therefore their bodily appetites ſcarce ever miſlead them. And the evil influences which our corrupt practices and cuſtoms have upon them, is a farther argument for the relation we all bear to each other. In like manner, all the evil mutual influences in animals, with all there original deviations, are marks and evidences of a fallen and degenerate ſtate, however difficult this may be to be accounted for. They are therefore evidences alſo of the truth of the ſcriptures, which not only declare this our degeneracy, and give a general idea of the means by which it was introduced, but alſo publiſh the glorious tidings of our redemption from it.

Sixthly, Since the circumſtances of the world are ſuch, as that it is almoſt impoſſible for thoſe who do not retire from it, to avoid errors both in the quantity and quality of their diet, there ſeems a neceſſity for faſting upon certain occaſions. This is a compendious method of reverſing our own wrong ſteps, of preventing the ill effects of exceſs upon the body and mind, breaking ill habits of this ſort at once, and bringing us back, by haſty motions, to the higheſt degrees of ſelf-government, to which imperfect creatures in this world of temptations can attain. It is therefore a duty, which implies and preſuppoſes the preſent imperfection and degeneracy of our natures. And yet this duty, harſh as it ſeems, is probably productive even of ſenſible pleaſure in moſt inſtances;

inſtances; ſince, under due reſtrictions, it appears to be extremely conducive to health and long life, as well as to the regulation of our paſſions. It may be true indeed, that conſtant abſtemiouſneſs would be preferable, in theſe reſpects, to what is called common moderation, practiſed upon ordinary occaſions, and rectified by faſting upon particular ones. But the due degree of abſtemiouſneſs is ſcarce practicable for a conſtancy, as I obſerved juſt now, to thoſe whoſe duty engages them to converſe freely with the world. Let me add here, that faſting will have much more efficacy towards reducing us to a right courſe of action, when it is accompanied with ſuch religious exerciſes, as the practice of good men has joined with it, prayer, ſelf-examination, and works of charity.

Seventhly, Where a perſon has been ſo happily educated, as ſcarce to have tranſgreſſed the bounds of ſtrict moderation, either in eating or drinking, and with reſpect both to quantity and quality, or where he has corrected and brought back himſelf by due ſeverity, ſufficiently continued, it is better to pay a regard to the foregoing and ſuch like precepts, only to a certain degree, upon occaſions of importance, and without ſcrupuloſity and rigour; and, in the ſmall inſtantaneous occurrences of life, to be directed by the natural appetites, agreeably to the original intention of the author of nature. For anxiety, ſolicitude, and ſcrupuloſity, are greatly prejudicial to the health both of the body and mind, turn us from our natural and equitable judgment of things, augment ſelfiſhneſs, and diſqualify for the practice of the higheſt duties, good-will to men, and complacence and delight in God. The ſcripture precept is *to eat and drink to the glory of God*, not with a ſolicitude about ourſelves.

PROP. CLII.

To deduce practical Rules concerning the Commerce between the Sexes.

THAT benevolence, love, eſteem, and the other ſympathetic affections, give the chief value, and higheſt perfection, to the ſenſible pleaſures between the ſexes, is ſufficiently evident to ſerious and conſiderate perſons. It appears alſo, that theſe pleaſures were intended by Providence, as a principal means, whereby we might be enabled to transfer our affection and concern from ourſelves to others, and learn firſt in the ſingle inſtance of the beloved perſon, afterwards in thoſe of the common offspring, to ſympathize in the pleaſures and pains of our neighbours, and to love them as ourſelves. it follows therefore, that if this great ſource of benevolence be corrupted, or perverted to other purpoſes, the ſocial affections thereon depending will be perverted likewiſe, and degenerate into ſelfiſhneſs or malevolence. Let us inquire in what manner the ſtrong inclinations of the ſexes to each other may be beſt conducted, ſo as moſt to contribute to public and private happineſs, ſo as to obtain the *maximum* of it, both from this quarter, and from the other parts of our nature, which are neceſſarily connected with it.

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Firſt, then, It is evident, that unreſtrained promiſcuous concubinage would produce the greateſt evils, public and private. By being unreſtrained, it would deſtroy the health and the propagation of mankind by being promiſcuous, become ineffectual to promote love, and the tender affections, either between the perſons themſelves, or towards their offspring, and alſo raiſe endleſs jealouſies and quarrels amongſt mankind. There has never perhaps been any nation in the world, where this entire licentiouſneſs has been allowed; the miſchiefs which evidently follow from all great degrees of it, having always laid mankind under ſome reſtraints, and produced ſome imperfect regulations at leaſt, and ſome approaches towards marriage. However, the miſery and deſolation of the barbarous nations of *Africa* and *America*, in whom the violence of paſſion, and the degeneracy of nature, have almoſt obliterated the faint traces of the patriarchal religion; and the many evils, public and private, which attend all unlawful commerce between the ſexes in the more civilized countries; are abundantly ſufficient to evince what is affirmed. The ſhameful, loathſome, and often fatal diſeaſe, which peculiarly attends the vice of lewdneſs, may be conſidered as a moſt unqueſtionable evidence of the divine will. This diſeaſe, with all its conſequences, would ſoon ceaſe amongſt mankind, could they be brought under the reſtraints of lawful marriage; but muſt ever continue, whilſt licentiouſneſs continues. And it is perhaps to this diſeaſe that we owe the preſent tolerable ſtate of things. It may be, that, without this check, the licentiouſneſs, which has always been obſerved to follow improvements in arts and politeneſs, and to attend upon bodies politic in their declenſion, and which the corruption of the chriſtian religion in ſome, and the diſbelief of it in others, have, in a manner, authorized, would have brought on utter diſſoluteneſs in this weſtern part of the world, ſuch as would have been inconſiſtent with the very exiſtence of regular government. Nay, it may be, that this will ſtill be the caſe, and that we are haſtening to our period, through the great wickedneſs of the world in this reſpect particularly, though our lives, as a body politic, be ſomewhat prolonged, by this correction.

Secondly, Promiſcuous concubinage being thus evidently excluded, it comes next to be inquired, whether the goſpel rule of confining one man to one woman during life, except in the caſe of the woman's adultery, be calculated to produce the greateſt poſſible good, public and private. And here we muſt own ourſelves utterly unable to form any exact judgment. It is impoſſible to determine by any computation, which of all the ways, in which marriage has been or may be regulated, is moſt conducive to happineſs upon the whole: this would be too wide a field, and where alſo we could have no fixed points to guide us: juſt as, in the matter of civil government, it is impoſſible for us to determine, what particular form, monarchy, ariſtocracy, &c. or what mixture of theſe, is moſt accommodated to human nature, and the circumſtances of things. Here therefore we ſeem particularly to want a revelation to direct us; and therefore are under a particular obligation to abide by its award. Now revealed religion commands us, in the caſe of government, to obey thoſe powers that are actually eſtabliſhed, of whatever kind

kind they be, leaving that to the children of this world to diſpute; and, in reſpect of marriage, gives a permiſſion to enter into this ſtate to thoſe who find it requiſite, and alſo a farther permiſſion to divorce an adultreſs, and marry another woman; but at the ſame time enjoins the ſtricteſt purity in our thoughts, words, and actions; and that not only in all ſuch as reſpect other perſons beſides the huſband and wife, but in every thing that has a tendency to heighten carnal deſire. Now, though it does not appear, that mankind ever did, or ever would, make ſo ſtrict a rule for themſelves; yet this rule, when made, approves itſelf to our judgments. The ſtricteſt purity and watchfulneſs over ourſelves are neceſſary, in order to make marriage of any kind (which we ſee by the laſt article to be itſelf neceſſary) happy, and productive of private pleaſure and comfort, and of public good, by the united labours of the married pair for themſelves, their offspring, and their relatives. In the preſent imperfect ſtate of things, the forbidding to divorce an adultreſs might ſeem a harſh commandment, above the frailty of our natures, as requiring the moſt entire love and affection, where there are returns of the greateſt contempt and averſion, and the greateſt violation of what are called juſt rights and properties. Now, though the goſpel requires perfection of us ultimately, *i. e.* the moſt entire love in return for the moſt bitter hatred, and an abſolute diſregard of all property both for ourſelves, and for thoſe whom we make our ſubſtitutes after death; yet it makes allowance for human frailty in this eminent inſtance; leaving it, however, to every man, who is arrived at a ſufficient degree of perfection, to walk thereby.

That a greater liberty of divorcing would be leſs ſuited to produce good, public and private, upon the whole, appears probable, becauſe no definite rule could be given in reſpect of other offences, they all admitting of various degrees; and becauſe the proſpect of divorcing, or being divorced, would often increaſe breaches, at the ſame time that frequent divorces would have the worſt conſequences in reſpect of children, and even approach to promiſcuous concubinage; whereas the indiſſolubility of the marriage bond, with the affection to the common offspring, often produce in both parties the chriſtian virtues of forbearance, and forgiveneſs to each other. It is not at all improbable, that wicked caſuiſts, who have explained away ſo many expreſs goſpel precepts, would, by the influence of princes and great men, have rendered marriage almoſt of no effect, by increaſing the liberty of divorcing.

Thirdly, The great ſinfulneſs of adultery, fornication, and impurity of every kind, appears not only from the manifeſt and great evils and miſeries of various ſorts attending them, the ſhame, intemperance, jealouſies, murders, &c. and from the ſtrictneſs of the goſpel precepts, and the practices of the firſt chriſtians in this reſpect; but alſo becauſe the great ſin of idolatry is repreſented by adultery and fornication in the prophetic writings; and becauſe the moſt heavy judgments are denounced againſt theſe laſt ſins in thoſe writings, when underſtood both in figurative and literal ſenſes. And indeed, as the idolatrous rites of the heathens were generally accompanied with abominable

abominable lewdneſs, ſo theſe vicious pleaſures may be conſidered as one of the groſſeſt kinds of idolatry, as withdrawing our affections from the true object, and fixing them on a mere animal pleaſure, on one from the firſt and loweſt claſs, and as worſhipping the heathen deities of *Bacchus* and *Venus*. It is true indeed, that the purſuits of this kind are ſeldom from the alone view of bodily pleaſure, the very nature of our bodies not ſuffering this, ſince the law of the body muſt transfer bodily pleaſures upon foreign objects, ſo as to form intellectual pleaſures. But then the intellectual pleaſure accompanying theſe purſuits is always a vicious one, generally that of a vain miſchievous ambition, which occaſions the greateſt confuſion, havock, and diſtreſs, in families, and indeed in the whole race of mankind.

Fourthly, It follows from the ſhame attending theſe pleaſures, the organs, their functions, &c. in all ages and nations, the account of the origin of this ſhame in the third chapter of *Geneſis*, the directions concerning the uncleanneſs of men and women given in the *Jewiſh* law, the right of circumciſion, the pains of child-birth, with the account of their origin in the third chapter of *Geneſis*, the ſtrictneſs required in the *Jewiſh* prieſts, the abſtinence required in others upon ſacred occaſions, the miraculous conception of Chriſt, his expreſſions concerning marrying, and giving in marriage, at the times of the flood, and laſt judgment, his and St. *Paul*'s recommendation of celibacy, the honourable mention of virginity in the *Revelation*, &c. that theſe pleaſures are to be conſidered as one of the marks of our preſent fallen degenerate ſtate. The mortality of the preſent body, introduced by *Adam*'s ſin, would of courſe require ſome ſuch method of propagation as now ſubſiſts, though nothing of this kind had taken place before the fall; and therefore it may be, that nothing did, or ſomething greatly different from the preſent method. And one may deduce from hence, as well as from the parallel obſervations concerning abſtinence in diet, and faſting (for the ſimilar nature, and reciprocal influence, of the ſenſible pleaſures juſtifies our inferences here, made either way), alſo from the ſickneſſes and infirmities of human life, and particularly from thoſe of women, that great moderation, and frequent abſtinence, are requiſite. Nay, it even appears, that in many circumſtances marriage itſelf is not to be approved; but rather that men and women, who are advanced to or paſt the meridian of life, who have a call to offices of religion, charity, &c. who labour under certain hereditary diſtempers, have relations and dependents that are neceſſitous, &c. ſhould endeavour to ſubdue the body by prayer and faſting. However, great care ought here to be taken not to lay a ſnare before any one.

If we admit the doctrine of this laſt paragraph, viz. that theſe pleaſures are only permitted, and that they are marks of our fallen ſtate, we may perhaps be enabled thereby to caſt ſome light upon the ſcripture hiſtory of the *Patriarchs* and *Jews*. We chriſtians who live in the more adult ages of mankind, have ſtricter precepts, and are obliged to higher degrees of ſpirituality, as we approach nearer to the ſpiritual kingdom of Chriſt; and yet ſome permiſſions are ſuitable to our ſtate. No wonder

then, that larger permiſſions were requiſite in the groſs, corporeal, infant ſtate of mankind, conſidered as one individual tending ever from carnality to ſpirituality, in a manner analogous to that of each perſon. However, theſe were only permiſſions to the *Jews* and *Patriarchs*, not commands. It may perhaps be, that while polygamy ſubſiſted according to permiſſion, the number of women might be greater than that of men. This is indeed mere hypotheſis; but ſuch things deſerve to be examined, as ſoon as proper principles are diſcovered, upon which to proceed. The proportional number of men deſtroyed by wars in ancient times, appears to be much greater than it is now.

Here it may be aſked, If it be requiſite in certain perſons not to marry at all, and in every one to be abſtinent, how can it be ſaid, that this rule of life gives the *maximum* of thoſe pleaſures? Now, with reſpect to thoſe who never marry, at the ſame time devoting themſelves really and earneſtly to God, to attend upon him without diſtraction, it may be obſerved, that they enjoy the peculiar privilege of being exempted from many of the great cares and ſorrows of this life; and that the prophetical bleſſing of the barren's having more children than ſhe which hath an huſband, is eminently applicable to them. They that marry, muſt have ſorrow in the fleſh; and if thoſe who are under the neceſſity of marrying, becauſe they burn, humble themſelves agreeably to this experience of their own weakneſs, they will find marriage to be a proper clue to lead them through the difficulties and miſeries of this life to a better ſtate. But if a perſon, who is likewiſe humble, can humbly hope, upon a fair examination, that he is not under this neceſſity, there is no occaſion, that he ſhould take this burden upon him. The benevolent and devout affections, though wanting one ſource, will, upon the whole, grow faſter from other cauſes; and if he makes all with whom he has any intercourſes, all to whom his deſires, prayers, and endeavours, can extend, his ſpiritual children, ſtill with all humility, and diffidence of himſelf, their ſpiritual ultimate happineſs, through the infinite mercy of God, will be a fund of joy far ſuperior to any that is, and muſt be, tinctured with the defilements of this world, as that of natural parents cannot but be. As to theſe, *i. e.* the perſons that marry, it is probable, that they approach to the *maximum* of the ſenſible pleaſures much more than the diſſolute; and if, in any caſe, they do, for the ſake of religion, forego any part of what is permitted, it cannot be doubted, but this will be rapid with ample intereſt by ſpiritual pleaſures. But this ſubject is of too nice and difficult a nature to be farther purſued. Let thoſe who need particular information apply to God for it; and eſpecially let them pray, that they may join chriſtian prudence with chriſtian purity and holineſs.

It may alſo be aſked here, if marriage be only permitted, and celibacy preferable in the chriſtian ſenſe of things, what becomes of the propagation and increaſe of mankind, which ſeem to have a neceſſary connection with the greateſt public good? I anſwer, that this kind of cares is far above us, and therefore foreign to our proper buſineſs; whereas

whereas the precept, or admonition rather, to thoſe who can receive it, is plain, and ſtands upon the authority of the chriſtian revelation itſelf, and of the other natural ſignatures of the divine will before-mentioned. I anſwer alſo, that this world is a ruined world; that it muſt be deſtroyed by fire, as *Sodom* was, perhaps on account of our great corruption in this reſpect; ſo that its perfection in this ſtate of things is impoſſible, and therefore no end for us, though its correction and melioration be, as far as we have opportunity; that this admonition cannot be received by all; and therefore that the few, by whom alone it can be received, may contribute more to the increaſe of mankind by their promoting virtue, and reſtraining vice, than any poſterity of theirs could do; and laſtly, that, if it could be obſerved by all, we ſhould all be near to chriſtian perfection, *i. e.* to the glorious kingdom of Chriſt, and the new ſtate of things. Obſervations of the ſame kind may be made upon all the other goſpel precepts. If theſe be kept in their utmoſt purity by a few only, they ſeem to promote even temporal happineſs upon the whole; and this appears to be the truth of the caſe, the real fact, ſince no directions or exhortations can extend to, and prevail with, more than a few, in compariſon of the bulk of mankind, however good and earneſt they may be. If all could be influenced at once, it would be ſtill infinitely preferable, becauſe this would be *life from the dead*, and *the kingdom of righteouſneſs*. But this ſeems impoſſible. We need not therefore fear any intermediate degree. The more chriſtian purity and perfection prevail, the better muſt it be on all real accounts, whatever becomes of trade, arts, grandeur, &c.

Laſtly, I cannot diſmiſs this ſubject without making ſome remarks upon education. The deſires between the ſexes are far more violent than any others; the final cauſe of which is by writers very juſtly ſaid to be, that men and women may be compelled, as it were, to undertake the neceſſary cares and labours, that attend the married pair, in providing for themſelves, and their offſpring. But there is reaſon to believe from other parallel caſes, that theſe deſires are not originally much diſproportionate to the end; and that, if due care was taken, they would not ariſe in youth much before the proper time to ſet about this end, before the bodies of the ſexes were mature, able to endure labour and fatigue, and the woman to undergo child-birth, with its conſequences, of nurſing the infant, &c. and their minds ripe for the cares and foreſight required in family affairs. Something of this kind would probably happen, whatever care the parents took of the bodies and minds of their children, on account of our fallen degenerate ſtate, our ſtate of trial, which appears in all our other bodily appetites, and intellectual deſires. But the violence and unſeaſonableneſs of theſe paſſions are ſo manifeſt in the generality of young perſons, that one cannot but conclude the general education of youth to be groſsly erroneous and perverted. And this will appear very evident in fact upon examination. The diet of children, and young perſons, is not ſufficiently plain and ſparing; which would at the ſame time lay a better foundation for health, and freedom from diſeaſes, and put ſome check upon theſe paſſions. They are brought up in effeminacy, and neglect of bodily labour, which would prepare both

body and mind for care and ſorrow, and keep down carnal deſire. The due culture of the mind, eſpecially in reſpect of religion, is almoſt univerſally neglected; ſo that they are unfit for buſineſs, left expoſed to temptations through idleneſs, and want of employment, and are deſtitute of the chief armour, that of religious motives, whereby to oppoſe temptation. Laſtly, the converſation which they hear, and the books which they read, lewd heathen poets, modern plays, romances, &c. are ſo corrupt in this reſpect, that it is matter of aſtoniſhment, how a parent, who has any degree of ſerioufneſs (I will not ſay religion) himſelf, or concern for his child, can avoid ſeeing the immediate deſtructive conſequences, or think that any conſiderations, relating to this world, can be a balance to theſe.

PROP. CLIII.

To deduce practical Rules concerning the Hardſhips, Pains, and Uneaſineſſes, that occur in the daily Intercourſes of Life.

I HAVE already obſerved in general, *Prop.* 150. *Cor.* that a regard to the precepts of benevolence, piety, and the moral ſenſe, affords us the beſt proſpect for avoiding and leſſening theſe. I will now exemplify and apply this doctrine more particularly.

Firſt, then, It is evident, that luxury, ſelf-indulgence, and an indolent averſion to perform the duties of a man's ſtation, do not only bring on groſs bodily diſeaſes; but alſo, previouſly to this, are often apt to lead men into ſuch a degree of ſolicitude, anxiety, and fearfulneſs, in minute affairs, as to make them inflict upon themſelves greater torments, than the moſt cruel tyrant could invent. The complaints, which are uſually ſtyled nervous, are peculiarly apt to infeſt this claſs of perſons; and I need not ſay to thoſe, who either have themſelves experienced them, or attended to them in others, of how grievous a nature they are. Now, though ſomething is to be allowed here to natural conſtitution, and hereditary tendencies, alſo to the great injuries ſometimes done to the nervous ſyſtem by profuſe evacuations, and violent diſtempers, in conſequence whereof it may be proper and neceſſary in certain caſes to adminiſter ſuch medicines, as are ſuitable to the particular ſymptoms, and temporary exigencies; yet there ſeems to be no way ſo probable of getting out of this ſelf-tormenting ſtate, this labyrinth of error and anxiety, as by prayer and reſignation to God, by charity, and taking upon one's ſelf the cares and fears of others according to our rank and ſtation in life, eaſing our own burden thereby, and by conſtant, laborious, bodily exerciſe, ſuch particularly as occurs in the faithful diſcharge of duty, with great moderation in the ſenſible pleaſures. Could the unhappy perſons of this ſort be prevailed upon to enter on ſuch a courſe with courage and ſteadineſs, notwithſtanding the pains, difficulties, and uneaſineſſes, which would attend it at firſt, all would generally begin to clear up

even

even in reſpect of this world, ſo as that they would regain ſome tolerable degrees of health, ſerenity, and even cheerfulneſs.

Secondly, Human life is in ſo imperfect and diſorderly a ſtate, on account of the fall, that it is impoſſible to avoid all exceſſes, and hardſhips from heat, cold, hunger, accidents, &c. But then theſe may be rendered harmleſs and eaſy to a great degree, by accuſtoming the body to them; which the conſtant and faithful diſcharge of duty by each perſon, in particular does, in reſpect of thoſe exceſſes and hardſhips, that are moſt likely to befal *him*.

Thirdly, External injuries fall much to the ſhare of the imprudent. Now prudence is a virtue, *i. e.* a dictate of the moral ſenſe, and a command from God; and imprudence, agreeably hereto, the manifeſt offspring of ſome vicious paſſion or other, for the moſt part.

Fourthly, Bodily pains are often inflicted by men, either in the way of public authority, or of private reſentment and malice. But it is very evident, that the benevolent muſt fare better in this reſpect, than the malevolent and miſchievous.

Fifthly, Whatever evils befal a man, religion, and the belief of a happy futurity, enable him to ſupport himſelf under them much better than he could otherwiſe do. The true chriſtian not only ought, but is alſo able, for the moſt part, to *rejoice in tribulation*. And this is the genuine, ultimate, and indeed only perfect ſolution of all difficulties relating to the pleaſures and pains, both ſenſible and intellectual. For, though it be certain, that a benevolent and pious man has the faireſt proſpect for obtaining ſenſible pleaſure, and avoiding ſenſible pain, in general, and upon a fair balance; alſo that the more wicked any one is, the leſs pleaſure, and more pain, muſt he expect; yet ſtill it will often happen, that a perſon is obliged from a ſenſe of duty, from benevolence, adherence to true religion, the dictates of conſcience, or a goſpel precept to forego pleaſures, or endure pains, where there is no probability, that a recompence will be made during this life; and ſometimes it is required of a man even to ſeal his teſtimony with his blood. Now, in theſe caſes, rational ſelf-intereſt has nothing left, which can ſatisfy its demands, beſides the hope and expectation of happy futurity; but the preſent pleaſure, which theſe afford, is ſome earneſt of the thing hoped and expected; it is alſo, in certain caſes, ſo great, as to overpower, and almoſt annihilate, the oppoſite pains.

Here let it be obſerved, that as this frail corruptible body muſt at laſt return to its original duſt, and loſe its power of conveying pleaſure to us, which it does gradually for a long time before death from mere old age; ſo it is natural to expect, that the *maximum* of its pleaſures ſhould not always be attained, even by that which is the genuine rule of life. For death is a mark of our preſent fallen ſtate; and therefore we may have this farther mark alſo, that the true rule, which, in a paradiſaical ſtate, would have carried every thing in its order to perfection, will now do it only in the general; ſhewing us, firſt, by its being very general, that it is the true rule; and

ſecondly,

ſecondly, by its not being univerſal, that we have deviated from our original make.

It may not be amiſs to add a few words here concerning ſleep. The analogy taken from the foregoing rules teaches, that we ought not to indulge in this to the utmoſt, but to break it off a little before the natural inclination thereto totally expires. And this poſition is remarkably confirmed both by the many advantages to body and mind, which reſult from riſing early; and by the ſcripture precepts concerning *watching*; which, as appears to me, ought to be taken as well in their ſtrictly literal ſenſe upon proper occaſions, as in their more diſtant and figurative one.

SECT. III.

OF THE REGARD DUE TO THE PLEASURES AND PAINS OF IMAGINATION IN FORMING THE RULE OF LIFE.

PROP. CLIV.

The Pleaſures of Imagination ought not to be made a primary Purſuit.

For, Firſt, It does not appear that thoſe who devote themſelves to the ſtudy of the polite arts, or of ſcience, or to any other pleaſure of mere imagination, as their chief end and purſuit, attain to a greater degree of happineſs than the reſt of the world. The frequent repetition of theſe pleaſures cloys, as in other caſes: and though the whole circle of them is ſo extenſive, as that it might, in ſome meaſure, obviate this objection; yet the human fancy is too narrow to take in this whole circle, and the greateſt virtuoſos do, in fact, ſeldom apply themſelves to more than one or two conſiderable branches.—The ways in which the pleaſures of beauty are uſually generated, and transferred upon the ſeveral objects, are often oppoſite to, and inconſiſtent with, one another; ſo as to mix deformity with beauty, and to occaſion an unpleaſing diſcordancy of opinion, not only in different perſons, but even in the ſame. This is evident from the foregoing hiſtory of theſe pleaſures, and of their derivation from arbitrary and accidental aſſociations, as well as from the obſervation of the fact in real life. And it is not uncommon to ſee men, after a long and immoderate purſuit of one claſs of beauty, natural or artificial, deviate into ſuch by-paths and ſingularities, as that the objects excite pain rather than pleaſure; their limits for excellence and perfection being narrow, and their rules abſurd; and all that falls ſhort of theſe, being

condemned

condemned by them, as deformed and monſtrous.—Eminent votaries of this kind are generally remarkable for ignorance and imprudence in common neceſſary affairs; and thus they are expoſed to much ridicule and contempt, as well as to other great inconveniencies.—The ſame perſons are peculiarly liable to vanity, ſelf-conceit, cenſorioufneſs, moroſeneſs, jealouſy, and envy; which ſurely are very uneaſy companions in a man's own breaſt, as well as the occaſions of many inſults and harms from abroad. And I think I may add, that ſcepticiſm in religious matters is alſo a frequent attendant here; which, if it could be ſuppoſed free from danger as to futurity, is at leaſt very uncomfortable as to the preſent. For as the extravagant encomiums beſtowed upon works of taſte and genius beget a more than ordinary degree of ſelf-conceit in the virtuoſo, ſo this ſelf-conceit, this ſuperiority which he fancies he has over the reſt of the world in one branch of knowledge, is by himſelf often ſuppoſed to extend to the reſt, in which yet it is probable that he is uncommonly ignorant through want of application: and thus he becomes either dogmatical or ſceptical; the firſt of which qualities, though ſeemingly oppoſite to the laſt, is, in reality, nearly related to it. And, as the ſympathetic and theopathetic affections are peculiarly neceſſary for underſtanding matters of a religious nature aright, no kind or degree of learning being ſufficient for this purpoſe without theſe, if the purſuit of literature, or ſcience, be ſo ſtrong, as to ſtifle and ſuppreſs the growth of theſe, or to diſtort them, religion, which cannot be reconciled to ſuch a temper, will probably be treated as incomprehenſible, abſurd, uncertain, or incredible.—However, it is difficult to repreſent juſtly, in any of the reſpects here mentioned, what is the genuine conſequence of the mere purſuit of the pleaſures of imagination, their votaries being alſo, for the moſt part, extremely over-run with the groſs vice of ambition, as was juſt now obſerved. But then this does not invalidate any of the foregoing objections, as will be ſeen when we come to conſider that vice in the next ſection.

Secondly, It is evident, that the pleaſures of imagination were not intended for our primary purſuit, becauſe they are, in general, the firſt of our intellectual pleaſures, which are generated from the ſenſible ones by aſſociation, come to their height early in life, and decline in old age. There are indeed ſome few perſons, who continue devoted to them during life; but there are alſo ſome, who remain ſenſualiſts to the laſt; which ſingularities are, however, in neither caſe, arguments of the deſign of Providence, that it ſhould be ſo. And, in general, we may reaſon here, as we did above, in deducing the inferior value of the ſenſible pleaſures from their being the loweſt claſs. The pleaſures of imagination are the next remove above the ſenſible ones, and have, in their proper place and degree, a great efficacy in improving and perfecting our natures. They are to men in the early part of their adult age, what playthings are to children; they teach them a love for regularity, exactneſs, truth, ſimplicity; they lead them to the knowledge of many important truths relating to themſelves, the external world, and its author; they habituate to invent, and reaſon by

by analogy and induction; and when the ſocial, moral, and religious affections begin to be generated in us, we may make a much quicker progreſs towards the perfection of our natures by having a due ſtock, and no more than a due ſtock, of knowledge, in natural and artificial things, of a reliſh for natural and artificial beauty. It deſerves particular notice here, that the language uſed in reſpect of the ideas, pleaſures, and pains of imagination, is applicable to thoſe of the moral ſenſe with a peculiar fitneſs and ſignificancy; as *vice verſa*, the proper language of the moral ſenſe does, in many caſes, add great beauty to poetry, oratory, &c. when uſed catachreſtically. And we may obſerve in general, that as the pleaſures of imagination are manifeſtly intended to generate and augment the higher orders, particularly thoſe of ſympathy, theopathy, and the moral ſenſe; ſo theſe laſt may be made to improve and perfect thoſe, as I ſhall now endeavour to ſhew under the propoſition that follows.

PROP. CLV.

The Purſuit of the Pleaſures of Imagination ought to be regulated by the Precepts of Benevolence, Piety, and the Moral Senſe.

For, Firſt, Thoſe parts of the arts and ſciences which bring glory to God, and advantage to mankind, which inſpire devotion, and inſtruct us how to be uſeful to others, abound with more and greater beauties, than ſuch as are profane, miſchievous, unprofitable, or minute. Thus the ſtudy of the ſcriptures, of natural hiſtory, and natural philoſophy, of the frame of the human mind, &c. when undertaken and purſued with benevolent and pious intentions, lead to more elegant problems, and ſurprizing diſcoveries, than any ſtudy intended for mere private amuſement.

Secondly, It may be conſidered as a reaſon for this, that ſince this world is a ſyſtem of benevolence, and conſequently its author the object of unbounded love and adoration, benevolence and piety are the only true guides in our inquiries into it, the only keys which will unlock the myſteries of nature, and clues which lead through her labyrinths. Of this all branches of natural hiſtory, and natural philoſophy, afford abundant inſtances; and the ſame thing may be ſaid of civil hiſtory, when illuſtrated and cleared by the ſcriptures, ſo as to open to view the ſucceſſive diſpenſations of God to mankind; but it has been more particularly taken notice of in the frame of the human body, and in the ſymptoms and tendencies of diſtempers. In all theſe matters let the inquirer take it for granted previouſly, that every thing is right, and the beſt that it can be, *cæteris manentibus*, *i. e.* let him, with a pious confidence, ſeek for benevolent purpoſes; and he will be always directed to the right road, and, after a due continuance in it, attain to ſome new and valuable truth; whereas every other principle and motive of examination, being foreign to the great plan, upon which the univerſe is conſtructed, muſt lead into endleſs mazes, errors, and perplexities.

Thirdly,

Thirdly, It may be conſidered as a farther reaſon of the ſame thing, that benevolence and piety, and, by conſequence, their offspring, the moral ſenſe, are the only things which can give a genuine and permanent luſtre to the truths that are diſcovered. A man with the moſt perfect comprehenſion, that his faculties will allow, of that infinite profuſion of good which overflows the whole creation, and of all the fountains and conduits of it, and yet having no ſhare of the original ſource from whence all theſe were derived, having no pittance or ray of the inexhauſtible benevolence of the great Creator, no love for that boundleſs ocean of love, or ſenſe of duty to him, would be no more happy, than an accomptant is rich by reckoning up millions, or a miſer by poſſeſſing them.

Fourthly, It may be remarked, that the pleaſures of imagination point to devotion in a particular manner by their unlimited nature. For all beauty, both natural and artificial, begins to fade and languiſh after a ſhort acquaintance with it: novelty is a never failing requiſite: we look down, with indifference and contempt, upon what we comprehend eaſily; and are ever aiming at, and purſuing, ſuch objects as are but juſt within the compaſs of our preſent faculties. What is it now that we ought to learn from this diſſatisfaction to look behind us, and tendency to preſs forward; from this endleſs graſping after infinity? Is it not, that the infinite Author of all things has ſo formed our faculties, that nothing leſs than himſelf can be an adequate object for them? That it is in vain to hope for full and laſting ſatisfaction from any thing finite, however great and glorious, ſince it will itſelf teach us to conceive and deſire ſomething ſtill more ſo? That, as nothing can give us more than a tranſitory delight, if its relation to God be excluded; ſo every thing, when conſidered as the production of his infinite wiſdom and goodneſs, will gratify our utmoſt expectations, ſince we may, in this view, ſee that every thing has infinite uſes and excellencies? There is not an atom perhaps in the whole univerſe, which does not abound with millions of worlds; and, converſely, this great ſyſtem of the ſun, planets, and fixed ſtars, may be no more than a ſingle conſtituent particle of ſome body of an immenſe relative magnitude, &c. In like manner, there is not a moment of time ſo ſmall, but it may include millions of ages in the eſtimation of ſome beings; and, converſely, the largeſt cycle which human art is able to invent, may be no more than the twinkling of an eye in that of others, &c. The infinite diviſibility and extent of ſpace and time admit of ſuch infinities upon infinities, aſcending and deſcending, as make the imagination giddy, when it attempts to ſurvey them. But, however this be, we may be ſure, that the true ſyſtem of things is infinitely more tranſcendent in greatneſs and goodneſs, than any deſcription or conception of ours can make it; and that the voice of nature is an univerſal chorus of joy and tranſport, in which the leaſt and vileſt, according to common eſtimation, bear a proper part, as well as thoſe whoſe preſent ſuperiority over them appears indefinitely great, and may bear an equal one in the true and ultimate ratio of things. And thus the conſideration of God gives a reliſh and luſtre to ſpeculations, which are otherwiſe

dry and unſatisfactory, or which perhaps would confound and terrify. Thus we may learn to rejoice in every thing we ſee, in the bleſſings paſt, preſent, and future; which we receive either in our own perſons, or in thoſe of others; to become partakers of the divine nature, loving and lovely, holy and happy.

PROP. CLVI.

To deduce practical Rules concerning the Elegancies and Amuſements of Life.

By the elegancies of life I mean the artificial beauties of houſes, gardens, furniture, dreſs, &c. which are ſo much ſtudied in high life. There is in theſe, as in all other things, a certain middle point, which coincides with our duty, and our happineſs; whilſt all great deviations from it incur the cenſure of viciouſneſs, or, at leaſt, of unſuitableneſs and abſurdity. But it is not eaſy to determine this point exactly, in the ſeveral circumſtances of each particular perſon. I will here ſet down the principal reaſons againſt an exceſs on each hand, leaving it to every perſon to judge for himſelf how far they hold in his own particular circumſtances.

We may then urge againſt the immoderate purſuit of the elegancies of life;

Firſt, That vanity, oſtentation, and the unlawful pleaſures of property, of calling things our own, are almoſt inſeparable from the purſuit of theſe elegancies, and often engroſs all to themſelves.

Secondly, That the profuſion of expence requiſite here is inconſiſtent with the charity due to thoſe, that are afflicted in mind, body, and eſtate.

Thirdly, That the beauties of nature are far ſuperior to all artificial ones, *Solomon in all his glory not being arrayed like a lily of the field*; that they are open to every one, and therefore rather reſtrain than feed the deſire of property; and that they lead to humility, devotion, and the ſtudy of the ways of Providence. We ought therefore much rather to apply ourſelves to the contemplation of natural than of artificial beauty.

Fourthly, Even the beauties of *nature* are much chequered with irregularities and deformities, this world being only the ruins of a paradiſaical one. We muſt not therefore expect entire order and perfection in it, till we have paſſed through the gate of death, and are arrived at our ſecond paradiſaical ſtate, till the heavens and earth, and all things in them, be made anew. How much leſs then can we hope for perfection in the works of human art! And yet, if we ſeriouſly apply ourſelves to theſe, we ſhall be very apt to flatter ourſelves with ſuch falſe hopes, and to forget *that* heavenly country, the deſire and expectation of whoſe glories and beauties can alone carry us through the preſent wilderneſs with any degree of comfort and joy.

But

But then, on the contrary, that ſome attention may lawfully, and even ought to be paid to artificial beauty, will appear from the following reaſons.

Firſt, Convenience and utility are certainly lawful ends; nay, we are even ſent hither to promote theſe publicly and privately. But theſe coincide, for the moſt part, with, and are promoted by, ſimplicity, neatneſs, regularity, and juſtneſs of proportion, *i. e.* with ſome of the ſources of artificial beauty; though not with all; ſuch as grandeur, profuſe variety, accumulation of natural beauties and luſtres, and ſumptuouſneſs.

Secondly, The ſtudy of artificial beauty draws us off from the groſs ſenſual pleaſures; refines and ſpiritualizes our deſires; and, when duly limited, teaches us to transfer and apply our ideas of ſimplicity, uniformity, and juſtneſs of proportion, to the heart and affections.

Thirdly, It is neceſſary for us in this degenerate ſtate, and world of temptations, to be occupied in innocent purſuits, leſt we fall into ſuch as are miſchievous and ſinful. It is therefore, in its proper place and degree, as great charity to mankind to employ the poor in improving and ornamenting external things, rewarding them generouſly and prudently for their labours, as to give alms; and as uſeful to the rich to be employed in contriving and conducting ſuch deſigns at certain times, as to read, meditate, or pray, at others. Our natures are too feeble to be always ſtrained to the pitch of an active devotion or charity, ſo that we muſt be content at ſome intervals to take up with engagements that are merely innocent, ſitting looſe to them, and purſuing them without eagerneſs and intention of mind. However, let it be well obſerved, that there are very few upon whom this third reaſon for the purſuit of artificial beauty need be inculcated; and that I preſume not at all to interfere with thoſe holy perſons, who find themſelves able to devote all their talents, their whole time, fortunes, bodily and mental abilities, &c. to the great Author of all, in a direct and immediate manner.

Now theſe and ſuch like reaſons, for and againſt the purſuit of the elegancies of life, hold in various degrees according to the ſeveral circumſtances of particular perſons; and it will not be difficult for thoſe who ſit looſe to the world, and its vanities, to balance them againſt one another in each caſe, ſo as to approach nearly to that *medium*, wherein our duty and happineſs coincide.

The practice of playing at games of chance and ſkill is one of the principal amuſements of life; and it may be thought hard to condemn it as abſolutely unlawful, ſince there are particular caſes of perſons infirm in body or mind, where it ſeems requiſite to draw them out of themſelves, by a variety of ideas and ends in view, which gently engage the attention. But this reaſon takes place in very few inſtances. The general motives to play are avarice, joined with a fraudulent intention, explicit or implicit, oſtentation of ſkill, and ſpleen through the want of ſome ſerious, uſeful occupation. And as this practice ariſes from ſuch corrupt ſources, ſo it has a tendency to increaſe

them; and indeed may be conſidered as an expreſs method of begetting and inculcating ſelf-intereſt, ill-will, envy, &c. For by gaming a man learns to purſue his own intereſt ſolely and explicitly, and to rejoice at the loſs of others, as his own gain; grieve at their gain, as his own loſs; thus entirely reverſing the order eſtabliſhed by Providence for ſocial creatures, in which the advantage of one meets in the ſame point as the advantage of another, and their diſadvantage likewiſe. Let the loſs of time, health, fortune, reputation, ſerenity of temper, &c. be conſidered alſo.

PROP. CLVII.

To deduce practical Rules concerning Mirth, Wit, and Humour.

HERE it is neceſſary,

Firſt, To avoid all ſuch mirth, wit, and humour, as has any mixture of profaneneſs in it, *i. e.* all ſuch as leſſens our reverence to God, and religious ſubjects; aggrieves our neighbour; or excites corrupt and impure inclinations in ourſelves. Since then it appears from the hiſtory of wit and humour, given in the foregoing part of this work, that the greateſt part of what paſſes under theſe names, and that which ſtrikes us moſt, has a ſinful tendency, it is neceſſary to be extremely moderate and cautious in our mirth, and in our attention to, and endeavours after, wit and humour.

Secondly, Let us ſuppoſe the mirth to be innocent, and kept within due bounds; ſtill the frequent returns of it beget a levity and diſſipation of mind, that are by no means conſiſtent with that ſerioufneſs and watchfulneſs which are required in chriſtians, ſurrounded with temptations, and yet aiming at purity and perfection; in ſtrangers and pilgrims, who ought to have the uncertain time of their departure hence always in view. We may add, that wit and humour, by ariſing, for the moſt part, from fictitious contraſts and coincidences, diſqualify the mind for the purſuit after truth, and attending to the uſeful practical relations of things, as has already been obſerved in the hiſtory of them; and that the ſtate of the brain which accompanies mirth cannot ſubſiſt long, or return frequently, without injuring it; but muſt, from the very frame of our natures, end at laſt in the oppoſite ſtate of ſorrow, dejection, and horror.

Thirdly, There is, for the moſt part, great vain-glory and oſtentation in all attempts after wit and humour. Men of wit ſeek to be admired and careſſed by others for the poignancy, delicacy, brilliancy, of their ſayings, hints, and repartees; and are perpetually racking their inventions from this deſire of applauſe. Now, as ſo ſinful a motive muſt defile all that proceeds from it, ſo the ſtraining our faculties to an unnatural pitch is inconſiſtent with that eaſe and equality in converſation, which our ſocial nature, and a mutual deſire to pleaſe, and be pleaſed require.

Fourthly,

Fourthly, A due attention being previouſly paid to the foregoing and ſuch like cautions, it ſeems not only allowable, but even requiſite, to endeavour at a ſtate of perpetual cheerfulneſs, and to allow ourſelves to be amuſed and diverted by the modeſt, innocent pleaſantries of our friends and acquaintance, contributing alſo ourſelves thereto, as far as is eaſy and natural to us. This temper of mind flows from benevolence and ſociality, and in its turn begets them; it relieves the mind, and qualifies us for the diſcharge of ſerious and afflicting duties, when the order of Providence lays them upon us; is a mark of uprightneſs and indifference to the world, this infantine gaiety of heart being moſt obſervable in thoſe who look upon all that the world offers as mere toys and amuſements; and it helps to correct, in ourſelves and others, many little follies and abſurdities, which, though they ſcarce deſerve a ſeverer chaſtiſement, yet ought not to be overlooked entirely.

PROP. CLVIII.

To deduce practical Rules concerning the Purſuit of the polite Arts; and particularly of Muſic, Painting, and Poetry.

I WILL here enumerate the principal ways in which the three ſiſter arts of muſic, painting, and poetry, contribute either to corrupt or improve our minds; as it will thence appear in what manner, and to what degree, they are allowable, or even commendable, and in what caſes to be condemned as the vanities and ſinful pleaſures of the world, abjured by all ſincere chriſtians.

Firſt, then, It is evident, that moſt kinds of muſic, painting, and poetry, have cloſe connections with vice, particularly with the vices of intemperance and lewdneſs; that they repreſent them in gay, pleaſing colours, or, at leaſt, take off from the abhorrence due to them; that they cannot be enjoyed without *evil communications*, and concurrence in the pagan ſhew and pomp of the world; and that they introduce a frame of mind, quite oppoſite to that of devotion, and earneſt concern for our own and other's future welfare. This is evident of public diverſions, collections of pictures, academies for painting, ſtatuary, &c. ancient heathen poetry, modern poetry of moſt kinds, plays, romances, &c. If there be any who doubt of this, it muſt be from the want of a duly ſerious frame of mind.

Secondly, A perſon cannot acquire any great ſkill in theſe arts, either as a critic, or a maſter of them, without a great conſumption of time: they are very apt to excite vanity, ſelf-conceit, and mutual flatteries, in their votaries; and, in many caſes, the expence of fortunes is too conſiderable to be reconciled to the charity and beneficence due to the indigent.

Thirdly, All theſe arts are capable of being devoted to the immediate ſervice of God and religion in an eminent manner; and, when ſo devoted, they not only improve and exalt

exalt the mind, but are themſelves improved and exalted to a much higher degree, than when employed upon profane ſubjects; the dignity and importance of the ideas and ſcenes drawn from religion adding a peculiar force and luſtre thereto. And, upon the whole, it will follow, that the polite arts are ſcarce to be allowed, except when conſecrated to religious purpoſes; but that here their cultivation may be made an excellent means of awakening and alarming our affections, and transferring them upon their true objects.

PROP. CLIX.

To deduce practical Rules concerning the Purſuit of Science.

By the purſuit of ſcience I here mean the inveſtigation of ſuch truths, as offer themſelves in the ſtudy of the ſeveral branches of knowledge enumerated in the firſt part of this work; philology, mathematics, logic, hiſtory civil and natural, natural philoſophy, and theology, or divine philoſophy. Now here we may obſerve,

Firſt, That though the purſuit of truth be an entertainment and employment ſuitable to our rational natures, and a duty to him who is the *fountain of all knowledge and truth*, yet we muſt make frequent intervals and interruptions; elſe the ſtudy of ſcience, without a view to God and our duty, and from a vain deſire of applauſe, will get poſſeſſion of our hearts, engroſs them wholly, and by taking deeper root than the purſuit of vain amuſements, become in the end a much more dangerous and obſtinate evil than that. Nothing can eaſily exceed the vain-glory, ſelf-conceit, arrogance, emulation, and envy, that are found in the eminent profeſſors of the ſciences, mathematics, natural philoſophy, and even divinity itſelf. Temperance in theſe ſtudies is therefore evidently required, both in order to check the riſe of ſuch ill paſſions, and to give room for the cultivation of other eſſential parts of our natures. It is with theſe pleaſures as with the ſenſible ones; our appetites muſt not be made the meaſure of our indulgences; but we ought to refer all to an higher rule.

Secondly, When the purſuit of truth is directed by this higher rule, and entered upon with a view to the glory of God, and the good of mankind, there is no employment more worthy of our natures, or more conducive to their purification and perfection. Theſe are the *wiſe*, who in the *time of the end ſhall underſtand*, and make an *increaſe of knowledge*; who, by ſtudying and comparing together, the word and works of God, ſhall be enabled to illuſtrate and explain both; and who, *by turning many to righteouſneſs, ſhall* themſelves *ſhine as the ſtars for ever and ever.*

But we are not to confine this bleſſing to thoſe who are called *learned* men, in the uſual ſenſe of this word. Devotion, charity, prayer, have a wonderful influence upon thoſe who read the ſcriptures, and contemplate the works of creation, with a practical intention;

intention; and enable perſons otherwiſe illiterate, not only to ſee and feel the important truths therein manifeſted, for their own private purpoſes, but to preach and inculcate them upon others with ſingular efficacy and ſucceſs.

PROP. CLX.

To deduce practical Rules concerning the Ignorance, Difficulties, and Perplexities, in which we find ourſelves involved.

THESE are pains, which ought to be referred to the head of imagination, as above noted; and which therefore require to be conſidered here. But it muſt alſo be obſerved, that ſelf-intereſt has no ſmall ſhare in increaſing theſe pains; our ignorance and perplexity occaſioning the moſt exquiſite uneaſineſs to us in thoſe inſtances, where our future happineſs and miſery are at ſtake. Thus, in the difficulties which attend our inquiries into the origin of evil, free-will, the nature of our future exiſtence, the degree and duration of future puniſhment, and the moral attributes of God, our uneaſineſs ariſes not only from the darkneſs which ſurrounds theſe ſubjects, and the jarring of our concluſions, but from the great importance of theſe concluſions. The following practical rules deſerve our attention.

Firſt, To avoid all wrangling and contention, all bitterneſs and cenſoriouſneſs, in ſpeaking or writing upon theſe ſubjects. This is a rule which ought to extend to all debates and inquiries upon every ſubject; but it is more peculiarly requiſite to be attended to in difficult ones of a religious nature; inaſmuch as theſe ill diſpoſitions of mind are moſt unſuitable to religion, and yet moſt apt to ariſe in abſtruſe and high ſpeculations; alſo as they increaſe the pains conſidered in this propoſition by being of a nature nearly related to them, *i. e.* by being attended with a nearly related ſtate of the brain.

Secondly, We ought to lay it down as certain, that this perplexity and uneaſineſs commenced with the fall, with the eating of the fruit of the tree of the knowledge of good and evil; and that it can never be entirely removed till our readmiſſion to paradiſe, and to the tree whoſe leaves are for *the healing of the nations*. We muſt expect therefore, that, though humble and pious inquiries will always be attended with ſome ſucceſs and illumination, ſtill much darkneſs and ignorance will remain. And the expectation of this will contribute to make us eaſy under it.

Thirdly, The ſcriptures give us reaſon to hope, that this, as well as the reſt of our evils, will be removed in a future ſtate. We may therefore, if we labour to ſecure our happineſs in a future ſtate, enjoy, as it were by anticipation, this important part of it, that we ſhall then *ſee God and live, ſee him, though he be inviſible, ſee him as he is, and know as we are known.*

Laſtly, Of whatever kind or degree our perplexity be, an implicit confidence in the infinite power, knowledge, and goodneſs of God, which are manifeſted, both in his

his word and works, in ſo great a variety of ways, is a certain refuge. If our ideas of the divine attributes be ſufficiently ſtrong and practical, their greatneſs and gloriouſneſs, and the joy ariſing from them, will overpower any gloomineſs or diſſatisfaction, which a narrow and partial view of things may excite in us.

SECT. IV.

OF THE REGARD DUE TO THE PLEASURES OF HONOUR, AND THE PAINS OF SHAME, IN FORMING THE RULE OF LIFE.

PROP. CLXI.

The Pleaſures of Honour ought not to be made a primary Purſuit.

THIS may appear from the following conſiderations.

Firſt, Becauſe an eager deſire of, and endeavour after, the pleaſures of honour, has a manifeſt tendency to diſappoint itſelf. The merit of actions, *i. e.* that property of them for which they are extolled, and the agents loved and eſteemed, is, that they proceed from benevolence, or ſome religious or moral conſideration; whereas, if the deſire of praiſe be only in part the motive, we rather cenſure than commend. But, if praiſe be ſuppoſed the greateſt good, the deſire of it will prevail above the other deſires, and the perſon will by degrees be led on to vanity, ſelf-conceit, and pride, vices that are moſt contemptible in the ſight of all. *For whoſoever exalteth himſelf, ſhall be abaſed; and he that humbleth himſelf, ſhall be exalted.*

Secondly, What ſhall be the matter of the encomiums, if praiſe be the ſupreme good of the ſpecies? What is there, to which all can attain, and which all ſhall agree to commend and value? Not external advantages, ſuch as riches, beauty, ſtrength, &c. Theſe are neither in the power of all, nor univerſally commended. Not great talents, wit, ſagacity, memory, invention. Theſe, though more the ſubject of encomiums, yet fall to the lot of very few only. In ſhort, virtue alone is both univerſally eſteemed, and in the power of all, who are ſufficiently deſirous to attain it. But virtue cannot conſiſt with the purſuit of praiſe, much leſs with its being made a primary purſuit. It follows therefore, that it ought not to be made ſuch.

Thirdly, If it be ſaid, that thoſe who enjoy great external advantages, or are bleſt with happy talents, may perhaps purſue praiſe with ſucceſs; I anſwer, that the numberleſs competitions and ſuperiorities of others, follies and infirmities of a man's ſelf, miſtakes

miſtakes and jealouſies of thoſe from whom he expects praiſe, make this quite impoſſible in general. Nay, it is evident from the very nature of praiſe, which ſuppoſes ſomething extraordinary in the thing praiſed, that it cannot be the lot of many. So that he who purſues it, muſt either have a very good opinion of himſelf, which is a dangerous circumſtance in a ſeeker of praiſe, or allow that there are many chances againſt him.

Fourthly, If we recollect the hiſtory of theſe pleaſures delivered above, we ſhall ſee, that though children are pleaſed with encomiums upon any advantageous circumſtances that relate to them, yet this wears off by degrees; and, as we advance in life, we learn more and more to confine our pleaſures of this kind to things in our power (according to the common acceptation of theſe words), and to virtue. In like manner, the judicious part of mankind, *i. e.* thoſe whoſe praiſe is moſt valued, give it not except to virtue. Here then, again, is a moſt manifeſt ſubſerviency of theſe pleaſures to virtue. They not only tell us, that they are not our primary purſuit, or ultimate end, but alſo ſhew us what is.

Fifthly, The early riſe of theſe pleaſures, and their declenſion in old age, for the moſt part, are arguments to the ſame purpoſe, and may be illuſtrated by the ſimilar obſervations made on the pleaſures of ſenſation and imagination, being not ſo obvious here as there.

Sixthly, There is ſomething extremely abſurd and ridiculous in ſuppoſing a perſon to be perpetually feaſting his own mind with, and dwelling upon, the praiſes that already are, or which he hopes will hereafter be, given to him. And yet, unleſs a man does this, which beſides would evidently incapacitate him for deſerving or obtaining praiſe, how can he fill up a thouſandth part of his time with the pleaſures of ambition?

Seventhly, Men that are much commended, preſently think themſelves above the level of the reſt of the world; and it is evident, that praiſe from inferiors wants much of that high reliſh, which ambitious men expect, or even that it diſguſts. It is even uneaſy and painful to a man to hear himſelf commended, though he may think it his due, by a perſon that is not qualified to judge. And, in this view of things, a truly philoſophic and religious mind ſees preſently, that all the praiſes of all mankind are very trivial and inſipid.

Eighthly, As the deſire of praiſe carries us perpetually from leſs to larger circles of applauders, at greater diſtances of time and place, ſo it neceſſarily inſpires us with an eager hope of a future life; and this hope alone is a conſiderable preſumption in favour of the thing hoped for. Now it will appear from numberleſs arguments, ſome of which are mentioned in theſe papers, that every evidence for a future life is alſo an evidence in favour of virtue, and of its ſuperior excellence as the end of life; and *vice verſa*. The pleaſures of ambition lead therefore, in this way alſo, from themſelves, ſince they lead to thoſe of virtue. Let it be conſidered farther, that all

reflections upon a future life, the new ſcenes which will be unfolded there, and the diſcovery which will then be made of *the ſecrets of all hearts*, muſt caſt a great damp upon every ambition, but a virtuous one; and beget great diffidence even in thoſe, who have the beſt teſtimony from their conſciences.

PROP. CLXII.

The Pleaſures of Honour may be obtained in their greateſt Degree, and higheſt Perfection, by paying a ſtrict Regard to the Precepts of Benevolence, Piety, and the moral Senſe.

THIS appears, in part, from what has been delivered under the laſt propoſition; but it may be farther confirmed by the following remarks.

Firſt, Benevolence, piety, and the moral ſenſe, engage men to obtain all ſuch qualifications, and to perform all ſuch actions, as are truly honourable. They preſerve them alſo from that oſtentation in reſpect both of theſe and other things, which would render them ridiculous and contemptible. Indeed honour is affixed by the bulk of mankind, after ſome experience of men and things, chiefly to acts of generoſity, compaſſion, public ſpirit, &c. *i. e.* to acts of benevolence, and the encomiums beſtowed upon ſuch acts are one of the principal ſources of the moral ſenſe. The *maximum* of honour muſt therefore coincide with benevolence, and the moral ſenſe, and conſequently with piety alſo, which is cloſely connected with them.

It may be objected here, that acts of direct piety are not, in general, honourable in this profane world; but, on the contrary, that they expoſe to the charges of enthuſiaſm, ſuperſtition, and folly; and this not only from the groſsly vicious, but, in ſome caſes, even from the bulk of mankind. And it muſt be allowed, that ſome deductions ought to be made on this account, but then let it be conſidered, that it is impoſſible to obtain the applauſes both of the good and the bad; that, as thoſe of the laſt ſcarce afford pleaſure to any, ſo their cenſure need not be feared; and that ſuch perſons as are truly devout, as regard God in all their actions, and men only in ſubordination to him, are not affected by the contempt and reproaches of the world; but, on the contrary, *rejoice when men revile them, and ſpeak all manner of evil againſt them falſely, for the ſake of Chriſt.* Let it be obſerved farther, that humility is the principal of all the qualifications which recommend men to the world; and that it is difficult, or even impoſſible, to attain this great virtue without piety, without a high veneration for the infinite majeſty of God, and a deep ſenſe of our own nothingneſs and vileneſs in his ſight; ſo that, in an indirect way, piety may be ſaid to contribute eminently to obtain the good opinion of the world.

Secondly, It is plain from the above delivered hiſtory of honour, as paid to external advantages, to bodily, intellectual, and moral accompliſhments, that happineſs of ſome kind

kind or other, accruing to a man's ſelf, or to the world by his means, is the ſource of all honour, immediately or mediately. He therefore who is moſt happy in himſelf, and moſt the cauſe of happineſs to others, muſt in the end, from the very law of our natures, have the greateſt quantity of honourable aſſociations transferred upon him. But we have already ſhewn in part, and ſhall ſhew completely in the progreſs of this chapter, that benevolence, piety, and the moral ſenſe, are the only true, laſting foundations of private happineſs; and that the public happineſs ariſes from them, cannot be doubted by any one. The benevolent, pious, and conſcientious perſon muſt therefore, when duly known, and rightly underſtood, obtain all the honour which men good or bad can beſtow; and, as the honour from the firſt is alone valuable, ſo he may expect to receive it early, as an immediate reward and ſupport to his preſent virtues, and an incitement to a daily improvement in them.

Thirdly, For the ſame reaſon that we deſire honour, eſteem, and approbation, from men, and particularly from the wiſe and good; we muſt deſire them from ſuperior good beings, and, above all, from God, the higheſt and beſt. Or, if we do not deſire this, it muſt ariſe from ſuch an inattention to the moſt real and important of all relations, as cannot conſiſt with true happineſs. Now a regard to benevolence, piety, and the moral ſenſe, is, by the confeſſion of all, the ſole foundation for obtaining this greateſt of honours, the approbation of God. We cannot indeed enjoy this in perfection, whilſt ſeparated from the inviſible world by this fleſhly tabernacle; but the teſtimony of a good conſcience gives us ſome foretaſte and anticipation of it. How vain and inſipid, in reſpect of this *eternal weight of glory*, are all the encomiums, which all mankind could beſtow!

PROP. CLXIII.

To deduce practical Obſervations on the Nature of Humility, and the Methods of attaining it.

Here we may obſerve,

Firſt, That humility cannot require any man to think worſe of himſelf than according to truth and impartiality: this would be to ſet the virtues at variance with each other, and to found one of the moſt excellent of them, humility, in the baſe vice of falſehood.

Secondly, True humility conſiſts therefore in having right and juſt notions of our own accompliſhments and defects, of our own virtues and vices. For we ought not to deſcend lower than this by the foregoing paragraph; and to aſcend higher, would evidently be pride, as well as falſehood.

Thirdly, It follows, notwithſtanding this definition of humility, and even from it, that humble men, eſpecially in the beginning of a religious courſe, ought to be much occupied in conſidering and impreſſing upon themſelves their own miſery, imperfection, and ſinfulneſs, excluding as much as poſſible, all thoughts, and trains of thought, of a

contrary nature; alſo in attending to the perfections of others, and rejecting the conſideration of their imperfections. For, ſince all thoughts which pleaſe are apt to recur frequently, and their contraries to be kept out of ſight, from the very frame of the mind, as appears from *Prop.* 22, *Cor.* 3. and other places of the firſt part of this work, it cannot but be, that all men in their natural ſtate, muſt be proud; they muſt, by dwelling upon their own perfections, and the imperfections of others, magnify theſe; by keeping out of view the contraries, diminiſh them, *i. e.* they muſt form too high opinions of themſelves, and too low ones of others, which is pride: and they cannot arrive at juſt and true opinions of themſelves and others, which is humility, but by reverſing the former ſteps, and impreſſing upon themſelves, their own imperfection and vileneſs, and the perfections of others, by expreſs acts of volition.

Fourthly, A truly humble man will avoid comparing himſelf with others; and when ſuch compariſons do ariſe in the mind, or are forced upon it, he will not think himſelf better than others. I do not mean, that thoſe who are eminent for knowledge or virtue, ſhould not ſee and own their ſuperiority, in theſe reſpects, over perſons evidently ignorant and illiterate, or avowedly vicious. This cannot be avoided; but then this ſuperiority does not miniſter any food to pride, and a vain complacence in a man's own excellencies. Nor do I mean, that good men may not both humbly hope, that they themſelves are within the terms of ſalvation; and alſo fear, that the bulk of mankind are not; the firſt being a ſupport to their infant virtue, and a comfort allowed by God in their paſſage through this wilderneſs; the laſt a great ſecurity againſt infection from a wicked world. I only affirm, that every perſon, who is duly aware of his own ignorance, as to the ſecret cauſes of merit and demerit in himſelf and others, will firſt find himſelf incapable of judging between individuals; and then, if he has duly ſtudied his own imperfections, according to the laſt paragraph, he will not be apt to preſume in his own favour.

Fifthly, It is an inſeparable property of humility, not to ſeek the applauſes of the world; but to acquieſce in the reſpect paid by it, however diſproportionate this may be to the merit of the action under conſideration. For the contrary behaviour muſt produce endleſs inquietude, reſentment, envy, and ſelf-conceit.

Sixthly, It is, in like manner, inſeparable from true humility, to take ſhame to ourſelves where we have deſerved it, to acquieſce under it where we think we have not, and always to ſuſpect our own judgment in the laſt caſe. There is no way ſo ſhort and efficacious as this to mortify that pride, and overweening opinion of ourſelves, which is the reſult of our frame in this degenerate ſtate. Nay, we ought even to rejoice when we are meanly eſteemed, and deſpiſed, as having then an opportunity offered of imitating him who was *meek and lowly in heart*, and of *finding reſt to our ſouls* thereby.

Seventhly, It may conduce to eradicate that tendency which every man has to think himſelf a nonpareil, in ſome reſpect or other, to conſider natural productions, flowers, fruits,

fruits, gems, &c. It would be very abſurd to affirm of one of theſe, that it was a nonpareil in its kind, becauſe it is endued with great beauty and luſtre; much leſs therefore ought we to fancy this of that degree of beauty, parts, virtue, which happen to be our lot, and which is certainly magnified beyond the truth in our own eyes, from the intereſt which we have in ourſelves.

Eighthly, There is ſcarce a more effectual method of curbing oſtentation and ſelf-conceit, than frequently to impoſe upon one's ſelf a voluntary ſilence, and not to attempt to ſpeak, unleſs where a plain reaſon requires it. Voluntary ſilence is, in reſpect of oſtentation and ſelf-conceit, what faſting is, in reſpect of luxury and ſelf-indulgence. All perſons, who ſpeak much, and with pleaſure, intend to engage the attention, and gain the applauſe, of the audience; and have an high opinion of their own talents. And if this daily, I may ſpeak hourly, ſource and effect of vain-glory was cut off, we might with much greater facility get the victory over the reſt. When a perſon has, by this means, reduced himſelf to a proper indifference to the opinions of the world, he may by degrees abate of the rigour of his ſilence, and ſpeak naturally and eaſily, as occaſion offers, without any explicit motive; juſt as when faſting, and other ſeverities, have brought our appetites within due bounds, we may be directed by them in the choice and quantity of common wholeſome foods.

Ninthly, The doctrine of philoſophical free-will is the cauſe and ſupport of much pride and ſelf-conceit; and this ſo much the more, as it is a doctrine not only allowed, but even inſiſted upon and required, and made eſſential to the diſtinction between virtue and vice. Hence men are commanded, as it were, to ſet a value upon their own actions, by eſteeming them their own in the higheſt ſenſe of the words, and taking the merit of them to themſelves. For philoſophical free-will ſuppoſes, that God has given to each man a ſphere of action, in which he does not interpoſe; but leaves man to act entirely from himſelf, independently of his Creator; and as, upon this foundation, the aſſertors of philoſophical free-will aſcribe all the demerit of actions to men, ſo they are obliged to allow men to take the merit of good actions to themſelves, *i. e.* to be proud and ſelf-conceited. This is the plain conſequence of the doctrine of philoſophical free-will. How far this objection againſt it over-balances the objections brought againſt the oppoſite doctrine of mechaniſm, I do not here conſider. But it was neceſſary, in treating of the methods of attaining true humility, to ſhew in what relation the doctrine of free-will ſtood to this ſubject.

But we are not to ſuppoſe, that every man, who maintains philoſophical free-will, does alſo claim the merit of his good actions to himſelf. The ſcriptures are ſo full and explicit in aſcribing all that is good to God, and the heart of a good man concurs ſo readily with them, that he will rather expoſe himſelf to any perplexity of underſtanding, than to the charge of ſo great an impiety. Hence it is, that we ſee, in the writings of many good men, philoſophical free-will aſſerted, on one hand; and merit diſclaimed, on the other; in both caſes, with a view to avoid conſequences apparently impious; though

though it be impoſſible to reconcile theſe doctrines to each other. However, this ſubjection of the underſtanding to the moral principle is a noble inſtance of humility, and rectitude of heart.

As the aſſertors of philoſophical free-will are not neceſſarily proud, ſo the aſſertors of the doctrine of mechaniſm are much leſs neceſſarily humble. For, however they may, in theory, aſcribe all to God; yet the aſſociations of life beget the idea and opinion of *ſelf* again and again, refer actions to this ſelf, and connect a variety of applauſes and complacencies with theſe actions. Nay, men may be proud of thoſe actions, which they directly and explicitly aſcribe to God, *i. e.* proud, that they are inſtruments in the hand of God for the performing ſuch actions. Thus the phariſee, in our Saviour's parable, though he thanked God, that he was no extortioner, &c. yet boaſted of this, and made it a foundation for deſpiſing the publican. However, the frequent recollection, that all our actions proceed from God; that we have nothing which we did not receive from him; that there can be no reaſon in ourſelves, why he ſhould ſelect one, rather than another, for an inſtrument of his glory in this world, &c. and the application of theſe important truths to the various real circumſtances of our lives; muſt greatly accelerate our progreſs to humility and ſelf-annihilation. And, when men are far advanced in this ſtate, they may enjoy quiet and comfort, notwithſtanding their paſt ſins and frailties; for they approach to the paradiſaical ſtate, in which our firſt parents, though naked, were not aſhamed. But the greateſt caution is requiſite here, leſt by a freſh diſobedience we come to know evil as well as good again, and, by deſiring to be gods, to be independent, make the return of ſhame, puniſhment, and myſtical death, neceſſary for our readmiſſion to the tree of life.

Tenthly, It will greatly recommend humility to us, to conſider how much miſery a diſpoſition to glory in our ſuperiority over others may hereafter occaſion. Let it be obſerved therefore, that every finite perfection, how great ſoever, is at an infinitely greater diſtance from the infinite perfection of God, than from nothing; ſo that every finite being may have, and probably has, infinitely more ſuperiors than inferiors. But the ſame diſpoſition, which makes him glory over his inferiors, muſt make him envy his ſuperiors: he will therefore have, from this his diſpoſition, infinitely more cauſe to grieve, than to rejoice. And it appears from this way of conſidering things, that nothing could enable us to bear the luſtre of the inviſible world, were it opened to our view, but humility, ſelf-annihilation, and the love of God, and of his creatures, in and through him.

Eleventhly, If we may be allowed to ſuppoſe all God's creatures ultimately and indefinitely happy, according to the third ſuppoſition made above for explaining the infinite goodneſs of God, this would unite the profoundeſt humility with the higheſt gratification of our deſires after honour. For this makes all God's creatures equal in the eye of their Creator; and therefore, as it obliges us to call the vileſt worm our ſiſter, ſo it transfers upon us the glory of the brighteſt archangel; we are all equally made *to inherit all things*, are all equally *heirs of God, and coheirs with Chriſt.*

SECT.

SECT. V.

OF THE REGARD DUE TO THE PLEASURES AND PAINS OF SELF-INTEREST IN FORMING THE RULE OF LIFE.

PROP. CLXIV.

The Pleaſures of Self-intereſt ought not to be made a primary Purſuit.

SELF-INTEREST is of three kinds, as has been already explained, viz.

Firſt, groſs ſelf-intereſt, or the purſuit of the means for obtaining the pleaſures of ſenſation, imagination, and ambition.

Secondly, Refined ſelf-intereſt, or the purſuit of the means for obtaining the pleaſures of ſympathy, theopathy, and the moral ſenſe.

Thirdly, Rational ſelf-intereſt, or the purſuit of ſuch things, as are believed to be the means for obtaining our greateſt poſſible happineſs, at the ſame time that we are ignorant, or do not conſider, from what particular ſpecies of pleaſure this our greateſt poſſible happineſs will ariſe.

Now it is my deſign, under this propoſition, to ſhew, that none of theſe three kinds of ſelf-intereſt ought to be cheriſhed and indulged as the law of our natures, and the end of life; and that even rational ſelf-intereſt is allowable, only when it tends to reſtrain other purſuits, that are more erroneous, and deſtructive of our true happineſs.

I begin with the arguments againſt groſs ſelf-intereſt.

Firſt, then, We ought not to purſue the means of obtaining the pleaſures of ſenſation, imagination, and ambition, primarily, becauſe theſe pleaſures themſelves ought not to be made primary purſuits, as has been ſhewn in the three laſt ſections. The means borrow all their luſtre from the ends by aſſociation; and, if the original luſtre of the ends be not ſufficient to juſtify our making them a primary purſuit, the borrowed one of the means cannot. In like manner, if the original luſtre be a falſe light, an *ignis fatuus*, that miſleads and ſeduces us, the borrowed one muſt miſlead and ſeduce alſo. And indeed, though we ſometimes reſt in the means for obtaining the pleaſures of ſenſation, imagination, and ambition, and deſire riches, poſſeſſions of other kinds, power, privileges, accompliſhments, bodily and mental, for their own ſakes, as it were; yet, for the moſt part, they introduce an explicit regard to theſe exploded pleaſures; and conſequently muſt increaſe the corruption and falſe cravings, of our minds; and, if they did not, their borrowed luſtre would gradually languiſh, and die away, ſo that they would ceaſe to excite deſire. It is to be added, that, if they be conſidered and purſued as means, they will be uſed as ſuch, *i. e.* will actually involve us in the enjoyment of unlawful pleaſures.

Secondly,

Secondly, The treaſuring up the means of happineſs bears a very near relation to ambition. Thoſe who deſire great degrees of riches, power, learning, &c. deſire alſo that their acquiſitions ſhould be known to the world. Men have a great ambition to be thought happy, and to have it in their power to gratify themſelves at pleaſure; and this oſtentatious deſign is one principal motive for acquiring all the ſuppoſed means of happineſs. The reaſons therefore, which exclude ambition, muſt contribute to exclude ſelf-intereſt alſo.

Thirdly, Groſs ſelf-intereſt has a manifeſt tendency to deprive us of the pleaſures of ſympathy, and to expoſe us to its pains. Rapaciouſneſs extinguiſhes all ſparks of good-will and generoſity, and begets endleſs reſentments, jealouſies, and envies. And indeed a great part of the contentions, and mutual injuries, which we ſee in the world, ariſe, becauſe either one or both of the contending parties deſire more than an equitable ſhare of the means of happineſs. It is to be added, that groſs ſelf-intereſt has a peculiar tendency to increaſe itſelf from the conſtant recurrency, and conſequent augmentation, of the ideas and deſires that relate to *ſelf*, and the excluſion of thoſe that relate to others.

Now this inconſiſtency of groſs ſelf-intereſt with ſympathy would be ſome argument againſt it, barely upon ſuppoſition, that ſympathy was one neceſſary part of our natures, and which ought to have an equal ſhare with ſenſation, imagination, and ambition; but as it now begins to appear from the excluſion of theſe, and other arguments, that more than an equal ſhare is due to ſympathy, the oppoſition between them becomes a ſtill ſtronger argument againſt ſelf-intereſt.

Fourthly, There is, in like manner, an evident oppoſition between groſs ſelf-intereſt, and the pleaſures of theopathy, and of the moral ſenſe, and, by conſequence, an inſuperable objection to its being made our primary purſuit, deducible from theſe eſſential parts of our nature.

Fifthly, Groſs ſelf-intereſt, when indulged, devours many of the pleaſures of ſenſation, and moſt of thoſe of imagination and ambition, *i. e.* many of the pleaſures from which it takes its riſe. This is peculiarly true and evident in the love of money; but it holds alſo, in a certain degree, with reſpect to the other ſelfiſh purſuits. It muſt therefore deſtroy itſelf in part, as well as the pleaſures of ſympathy, theopathy, and the moral ſenſe, with the refined ſelf-intereſt grounded thereon. And thus it happens, that in very avaricious perſons nothing remains but ſenſuality, ſenſual ſelfiſhneſs, and an uneaſy hankering after money, which is a more imperfect ſtate, than that in which they were at their firſt ſetting off in infancy. Some of the ſtronger and more ordinary ſenſible pleaſures and pains, with the deſires after them, muſt remain in the moſt ſordid, as long as they carry their bodies about with them, and are ſubjected to the cravings of the natural appetites, and to the impreſſions of external objects. But a violent paſſion for money gets the better of all reliſh for the elegancies and amuſements of life, of the deſire of honour, love, and eſteem, and even of many of the ſenſual gratifications.

Now

Now it cannot be, that a purſuit which is ſo oppoſite to all the parts of our nature, ſhould be intended by the author of it for our primary one.

Sixthly, Men, in treaſuring up the means of happineſs without limits, ſeem to go upon the ſuppoſition, that their capacity of enjoying happineſs is infinite; and conſequently that the ſtock of happineſs, laid up for them to enjoy hereafter, is proportional to the ſtock of means, which they have amaſſed together. But our capacity for enjoying happineſs is narrow and fluctuating; and there are many periods, during which no objects, however grateful to others, can afford us pleaſure, on account of the diſorder of our bodies and minds. If the theory of theſe papers be admitted, it furniſhes us with an eaſy explanation of this matter, by ſhewing that our capacity for receiving pleaſure depends upon our aſſociations, and upon the ſtate of the medullary ſubſtance of the brain; and conſequently that it muſt fail often, and correſpond very imperfectly to the objects, which are uſually called pleaſurable ones.

Seventhly, It is very evident in fact, that ſelf-intereſted men are not more happy than their neighbours, whatever means of happineſs they may poſſeſs. I preſume indeed, that experience ſupports the reaſoning already alleged; but, however that be, it certainly ſupports the concluſion. Nay, one ought to ſay, that covetous men are, in general, remarkably miſerable. The hardſhips, cares, fears, ridicule and contempt, to which they ſubject themſelves, appear to be greater evils, than what fall to the ſhare of mankind at an average.

Eighthly, One may put this whole matter in a ſhort and obvious light, thus: the purſuit of the means of happineſs cannot be the primary one, becauſe, if all be means, what becomes of the end? Means, as means, can only be pleaſant in a derivative way from the end. If the end be ſeldom or never obtained, the pleaſure of the means muſt languiſh. The intellectual pleaſures, that are become ends by the entire coaleſcence of the aſſociated particulars, fade from being diluted with the mixture of neutral circumſtances, unleſs they be perpetually recruited. A ſelfiſh expectation therefore, which is never gratified, muſt gradually languiſh.

I come now, in the ſecond place, to ſhew that refined ſelf-intereſt, or the purſuit of the means for obtaining the pleaſures of ſympathy, theopathy, and the moral ſenſe, ought not to be made a primary purſuit.

A perſon who is arrived at this refined ſelf-intereſt, muſt indeed be advanced ſome ſteps higher in the ſcale of perfection, than thoſe who are immerſed in groſs ſelf-intereſt; inaſmuch as this perſon muſt have overcome, in ſome meaſure, the groſs pleaſures of ſenſation, imagination, and ambition, with the groſs ſelf-intereſt thereon depending, and have made ſome conſiderable progreſs in ſympathy, theopathy, and the moral ſenſe, before he can make it a queſtion whether the purſuit of refined ſelf-intereſt ought to be his primary purſuit or no. However, that it ought not, that this would detain him, and even bring him lower in the ſcale of perfection, will appear from the following reaſons.

Firſt, Many of the objections which have been brought againſt groſs ſelf-intereſt, retain their force againſt the refined, though in a leſs degree. Thus refined ſelf-intereſt puts us upon treaſuring up the ſame means as the groſs; for the perſons, who are influenced by it, conſider riches, power, learning, &c. as means of doing good to men, bringing glory to God, and enjoying comfortable reflections in their own minds in conſequence thereof. But the deſire of riches, power, learning, muſt introduce ambition, and other defilements, from the many corrupt aſſociations that adhere to them. In like manner, refined ſelf-intereſt has, like the groſs, a tendency to deſtroy the very pleaſures from which it took its riſe, *i. e.* the pleaſures of ſympathy, theopathy, and the moral ſenſe; it cannot afford happineſs, unleſs the mind and body be properly diſpoſed; it does not, in fact, make men happy; but is the parent of diſſatisfaction, murmurings, and aridity; and, being profeſſedly the purſuit of a bare means, involves the abſurdity of having no real end in view. It may not be improper here for the reader juſt to review the objections made above to groſs ſelf-intereſt.

Secondly, Refined ſelf-intereſt, when indulged, is a much deeper and more dangerous error than the groſs, becauſe it ſhelters itelf under ſympathy, theopathy, and the moral ſenſe, ſo as to grow through their protection; whereas the groſs ſelf-intereſt, being avowedly contrary to them, is often ſtifled by the increaſe of benevolence and compaſſion, of the love and fear of God, and of the ſenſe of duty to him.

Thirdly, It is allied to, and, as it were, part of the foregoing objection, which yet deſerves a particular conſideration, that the pride attending on refined ſelf-intereſt, when carried to a certain height, is of an incorrigible, and, as it were, diabolical nature. And, upon the whole, we may obſerve, that as groſs ſelf-intereſt, when it gets poſſeſſion of a man, puts him into a lower condition than the mere ſenſual brutal one, in which he was born; ſo refined ſelf-intereſt, when that gets poſſeſſion, depreſſes him ſtill farther, even to the very confines of hell. However, it is ſtill to be remembered, that ſome degree muſt ariſe in the beginning of a religious courſe; and that this, if it be watched and reſiſted, is an argument of our advancement in piety and virtue. But the beſt things, when corrupted, often become the worſt.

I come now, in the laſt place, to conſider what objections lie againſt rational ſelf-intereſt, as our primary purſuit.

Now here it may be alleged, Firſt, That as we cannot but deſire any particular pleaſure propoſed to us, as long as the aſſociations, which formed it, ſubſiſt in due ſtrength; ſo, when any thing is believed to be the means of attaining our greateſt poſſible happineſs, the whole frame of our acquired nature puts us upon purſuing it. Rational ſelf-intereſt muſt therefore always have a neceſſary influence over us.

Secondly, It may be alleged, that I have myſelf made rational ſelf-intereſt the baſis of the preſent inquiry after the rule of life, having ſuppoſed all along, that our greateſt poſſible happineſs is the object of this rule.

And

And it certainly follows hence, that rational ſelf-intereſt is to be put upon a very different footing from that of the groſs and refined; agreeably to which the ſcriptures propoſe general and indefinite hopes and fears, and eſpecially thoſe of a future ſtate, and inculcate them as good and proper motives of action. But then, on the other hand, the ſcriptures inculcate many other motives, diſtinct from hope and fear; ſuch as the love of God and our neighbour, the law of our minds, &c. *i. e.* the motives of ſympathy, theopathy, and the moral ſenſe, as explained in this work. And we may ſee from the reaſoning uſed in reſpect of groſs and refined ſelf-intereſt, that a conſtant attention to that which is the moſt pure and rational, to the moſt general hopes and fears, would extinguiſh our love of God and our neighbour, as well as the other particular deſires, and augment the ideas and deſires, which centre immediately and directly in *ſelf*, to a monſtrous height. Rational ſelf-intereſt may therefore be ſaid to lie between the impure motives of ſenſation, imagination, ambition, groſs ſelf-intereſt, and refined ſelf-intereſt, on the one hand, and the pure ones of ſympathy, theopathy, and the moral ſenſe, on the other; ſo that when it reſtrains the impure ones, or cheriſhes the pure, it may be reckoned a virtue; when it cheriſhes the impure, or damps the pure, a vice. Now there are inſtances of both kinds, of the firſt in groſsly vicious perſons, of the laſt in thoſe that have made conſiderable advancement in piety and virtue. In like manner, the impure motives of ſenſation, imagination, &c. differ in degree of impurity from each other; and therefore may be either virtues or vices, in a relative way of ſpeaking. It ſeems, however, moſt convenient, upon the whole, to make rational ſelf-intereſt the middle point; and this, with all the other reaſoning of this paragraph, may ſerve to ſhew, that it ought not to be cultivated primarily. But I ſhall have occaſion to conſider this matter farther under the next propoſition but one, when I come to deduce practical obſervations on ſelf-intereſt and ſelf-annihilation.

It may be reckoned a part of the groſs and refined ſelf-intereſts, to ſecure ourſelves againſt the hazards of falling into the pains of the other ſix claſſes, and a part of rational ſelf-intereſt, to provide againſt our greateſt danger; and it might be ſhewn in like manner, that neither ought theſe to be primary purſuits.

PROP. CLXV.

A ſtrict Regard to the Precepts of Benevolence, Piety, and the moral Senſe, favours even groſs Self-intereſt; and is the only Method, by which the refined and rational can be ſecured.

HERE we may obſerve,

Firſt, That ſince the regard to benevolence, piety, and the moral ſenſe, procures the pleaſures of ſenſation, imagination, and ambition, in their greateſt perfection for the moſt part; it muſt favour groſs ſelf-intereſt, or the purſuit of the means of theſe.

Secondly, This regard has, in many caſes, an immediate tendency to procure theſe means, *i. e.* to procure riches, power, learning, &c. And though it happens ſometimes, that a man muſt forego both the means for obtaining pleaſure, and pleaſure itſelf, from a regard to duty; and happens often, that the beſt men have not the greateſt ſhare of the means; yet it ſeems that the beſt men have, in general, the faireſt proſpect for that competency, which is moſt ſuitable to real enjoyment. Thus, in trades and profeſſions, though it ſeldom is obſerved, that men eminent for piety and charity amaſs great wealth (which indeed could not well conſiſt with theſe virtues); yet they are generally in affluent or eaſy circumſtances, from the faithful diſcharge of duty, their prudence, moderation in expences, &c. and ſcarce ever in indigent ones. A ſenſe of duty begets a deſire to diſcharge it; this recommends to the world, to the bad as well as to the good; and, where there are inſtances apparently to the contrary, farther information will, for the moſt part, diſcover ſome ſecret pride, negligence, or imprudence, *i. e.* ſomething contrary to duty, to which the perſon's ill ſucceſs in reſpect of this world may be aſcribed.

Thirdly, A regard to duty plainly gives the greateſt capacity for enjoyment; as it ſecures us againſt thoſe diſorders of body and mind, which render the natural objects of pleaſure inſipid or ungrateful.

Fourthly, As to refined ſelf-intereſt, or the purſuit of the means for obtaining the pleaſures of ſympathy, theopathy, and the moral ſenſe, it appears at firſt ſight, that a due regard to theſe muſt procure for us both the end, and the means.

Fifthly, However the groſs or refined ſelf-intereſt may, upon certain occaſions, be diſappointed, the rational one never can, whilſt we act upon a principle of duty. Our future happineſs muſt be ſecured thereby. This the profane and profligate, as far as they have any belief of God, providence, or a future ſtate (and I preſume, that no one could ever arrive at more than ſcepticiſm and uncertainty in theſe things), allow, as well as the devout and pious chriſtian. And, when the rational ſelf-intereſt is thus ſecured, the diſappointments of the other two become far leſs grievous, make far leſs impreſſion upon the mind. He that has a certain reverſion of an infinite and eternal inheritance, may be very indifferent about preſent poſſeſſions.

PROP. CLXVI.

To deduce practical Obſervations on Self-intereſt and Self-annihilation.

SELF-INTEREST being reckoned by ſome writers the only ſtable point upon which a ſyſtem of morality can be erected, and ſelf-annihilation by others the only one in which man can reſt, I will here endeavour to reconcile theſe two opinions, giving at the ſame time both a general deſcription of what paſſes in our progreſs from ſelf-intereſt to ſelf-annihilation, and ſome ſhort hints of what is to be approved or condemned in this practice.

Firſt,

Firſt, then, The vicious pleaſures of ſenſation, imagination, and ambition, being often very expenſive, are checked by the groſſeſt of all the ſelf-intereſts, the mere love of money; and the principle upon which men act in this caſe is eſteemed one ſpecies of prudence. This may be tolerated in others, where it is not in our power to infuſe a better motive; but, in a man's ſelf, it is very abſurd to have recourſe to one, which muſt leave ſo great a defilement, when others that are purer and ſtronger, rational ſelf-intereſt particularly, are at hand.

Secondly, The deſire of bodily and mental accompliſhments, learning particularly, conſidered as means of happineſs, often checks both the forementioned vicious pleaſures, and the love of money. Now this kind of ſelf-intereſt is preferable to the laſt indeed; but it cannot be approved by any that are truly ſolicitous about their own reformation and purification.

Thirdly, Groſs ſelf-intereſt ſometimes excites perſons to external acts of benevolence, and even of piety; and though there is much hypocriſy always in theſe caſes, yet an imperfect benevolence or piety is ſometimes generated in this way. However, one cannot condemn this procedure in the higheſt degree.

Fourthly, As refined ſelf-intereſt ariſes from benevolence, piety, and the moral ſenſe; ſo, converſely, it promotes them in various ways. But, then, as it likewiſe checks their growth in various other ways, it cannot be allowed in many caſes, and is, upon the whole, rather to be condemned than approved. More favour may be ſhewn to it, where it reſtrains the vicious pleaſures of ſenſation, imagination, and ambition.

Fifthly, Rational ſelf-intereſt puts us upon all the proper methods of checking the laſt-named vicious pleaſures with groſs and refined ſelf-intereſt, and begetting in ourſelves the virtuous diſpoſitions of benevolence, piety, and the moral ſenſe. This part of our progreſs is extremely to be approved, and eſpecially the laſt branch of it.

Sixthly, The virtuous diſpoſitions of benevolence, piety, and the moral ſenſe, and particularly that of the love of God, check all the foregoing ones, and ſeem ſufficient utterly to extinguiſh them at laſt. This would be perfect ſelf-annihilation, and reſting in God as our centre. And, upon the whole, we may conclude, that though it be impoſſible to begin without ſenſuality, and ſenſual ſelfiſhneſs, or to proceed without the other intermediate principles, and particularly that of rational ſelf-intereſt; yet we ought never to be ſatisfied with ourſelves, till we arrive at perfect ſelf-annihilation, and the pure love of God.

We may obſerve alſo, that the method of deſtroying *ſelf*, by perpetually ſubſtituting a leſs and purer ſelf-intereſt for a larger and groſſer, correſponds to ſome mathematical methods of obtaining quantities to any required degree of exactneſs, by leaving a leſs and leſs error *ſine limite*. And though abſolute exactitude may not be poſſible in the firſt caſe, any more than in the laſt; yet a degree ſufficient for future happineſs is certainly attainable by a proper uſe of the events of this life.

SECT.

SECT. VI.

OF THE REGARD DUE TO THE PLEASURES AND PAINS OF SYMPATHY IN FORMING THE RULE OF LIFE.

PROP. CLXVII.

The Pleaſures of Sympathy improve thoſe of Senſation, Imagination, Ambition, and Self-intereſt; and unite with thoſe of Theopathy, and the moral Senſe; they are ſelf-conſiſtent, and admit of an unlimited Extent: they may therefore be our primary Purſuit.

THAT the pleaſures of ſympathy improve thoſe of ſenſation, imagination, ambition, and ſelf-intereſt, by limiting and regulating them, appears from the four laſt ſections.

Their union and entire coincidence with thoſe of theopathy are evident, inaſmuch as we are led by the love of good men to that of God, and back again by the love of God to that of all his creatures in and through him; alſo as it muſt be the will of an infinitely benevolent being, that we ſhould cultivate univerſal unlimited benevolence.

In like manner, they may be proved to unite and coincide with the pleaſures of the moral ſenſe, both becauſe they are one principal ſource of the moral ſenſe, and becauſe this, in its turn, approves of and enforces them entirely.

In order to prove their unlimited extent, let us ſuppoſe, as we did before of ſenſation, that a perſon took all opportunities of gratifying his benevolent deſires; that he made it his ſtudy, pleaſure, ambition, and conſtant employment, either to promote happineſs, or leſſen miſery, to *go about doing good.*

Firſt, then, It is very plain, that ſuch a perſon would have a very large field of employment. The relations of life, conjugal, parental, filial, to friends, ſtrangers, enemies, to ſuperiors, equals, inferiors, and even to brutes, and the neceſſities of each, are ſo numerous, that, if we were not greatly wanting in benevolent affections, we ſhould have no want of fit objects for them.

Secondly, As the occaſions are ſufficient to engage our time, ſo we may, in general, expect ſucceſs. Not only the perſons themſelves, to whom we intend to do ſervice, may be expected to concur, but others alſo, in general; inaſmuch as benevolence gains the love and eſteem of the beholders, has a perſuaſiveneſs and prevalence over them, and engages them to co-operate towards its ſucceſs. It is very neceſſary indeed, that all benevolent perſons ſhould guard againſt the ſallies of pride, ſelf-will, and paſſion,

paſſion, in themſelves, *i. e.* take care that their benevolence be pure; alſo that it be improved by piety, and the moral ſenſe; elſe it is probable, that they will meet with many diſappointments. But this is no argument againſt the unlimited nature of benevolence: it only tends to exclude the mixture and defilement of ill diſpoſitions; and to ſhew the neceſſary connection of the love of our neighbour with that of God, and with the divine ſignature of conſcience, which I all along contend for. When our benevolence is thus pure, and thus directed, it will ſeldom fail of gaining its purpoſe. And yet diſappointments muſt ſometimes happen to the pureſt benevolence; elſe our love of God, and reſignation to his will, which is the higheſt principle of all, could not be brought to perfection. But then this will happen ſo rarely as to make no alteration in our reaſonings, with reſpect to the general ſtate of things; which kind of reaſoning and certainty is all that we are qualified for in our preſent condition.

Thirdly, As the benevolent perſon may expect both ſufficient employment and ſucceſs, in general; ſo it does not appear from the experience of thoſe who make the trial, that the reliſh for theſe pleaſures languiſhes, as in other caſes; but, on the contrary, that it gathers ſtrength from gratification. We hear men complaining frequently of the vanity and deceitfulneſs of the other pleaſures after poſſeſſion and gratification, but never of thoſe of benevolence, when improved by religion, and the moral ſenſe. On the contrary, theſe pleaſures are greater in enjoyment than expectation; and continue to pleaſe in reflection, and after enjoyment. And the foregoing hiſtory of aſſociation may enable us to diſcover how this comes to paſs. Since the pleaſures of benevolence are, in general, attended with ſucceſs, and are conſiſtent with, and productive of, the ſeveral inferior pleaſures in their due degree, as I have already ſhewn, and alſo are farther illuminated by the moral and religious pleaſures, it is plain, that they muſt receive freſh recruits upon every gratification, and therefore increaſe perpetually, when cultivated as they ought to be.

The ſelf-conſiſtency of benevolence appears from the peculiar harmony, love, eſteem, and mutual co-operation, that prevail amongſt benevolent perſons; alſo from the tendency that acts of benevolence, proceeding from *A* to *B*, have to excite correſpondent ones reciprocally from *B* to *A*, and ſo on indefinitely. We may obſerve farther, that, when benevolence is arrived at a due height, all our deſires and fears, all our ſenſibilities for ourſelves, are more or leſs transferred upon others by our love and compaſſion for them; and, in like manner, that when our moral ſenſe is ſufficiently eſtabliſhed and improved, when we become influenced by what is fit and right, our imperfect ſenſibility for others leſſens our exorbitant concern for ourſelves by being compared with it, at the ſame time that compaſſion takes off our thoughts from ourſelves. And thus benevolence to a ſingle perſon may ultimately become equal to ſelf-intereſt, by this tendency of ſelf-intereſt to increaſe benevolence, and reciprocally of benevolence to leſſen ſelf-intereſt; though ſelf-intereſt was at firſt infinitely greater than benevolence, *i. e.* we, who come into the world entirely ſelfiſh, earthly, and *children of wrath*, may at laſt be exalted to

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the glorious liberty of the ſons of God, by learning to love our neighbours as ourſelves: we may learn to be as much concerned for others as for ourſelves, and as little concerned for ourſelves, as for others; both which things tend to make benevolence and ſelf-intereſt equal, however unequal they were at firſt.

And now a new ſcene begins to open itſelf to our view. Let us ſuppoſe, that the benevolence of *A* is very imperfect; however, that it conſiderably exceeds his malevolence; ſo that he receives pleaſure, upon the whole, from the happineſs of *B*, *C*, *D*, &c. *i. e.* from that of the ſmall circle of thoſe, whom he has already learnt to call his neighbours. Let us ſuppoſe alſo, that *B*, *C*, *D*, &c. though affected with a variety of pains, as well as pleaſures, are yet happy, upon the whole; and that *A*, though he does not ſee this balance of happineſs clearly, yet has ſome comfortable general knowledge of it. This then is the happineſs of good men in this preſent imperfect ſtate; and it is evident, that they are great gainers, upon the whole, from their benevolence. At the ſame time it gives us a faint conception of *A*'s unbounded happineſs, on ſuppoſition that he conſidered every man as his friend, his ſon, his neighbour, his ſecond ſelf, and loved him as himſelf; and that his neighbour was exalted to the ſame unbounded happineſs as himſelf by the ſame unlimited benevolence. Thus *A*, *B*, *C*, *D*, &c. would all become, as it were, new ſets of ſenſes, and perceptive powers, to each other, ſo as to increaſe each other's happineſs without limits; they would all become *members of the myſtical body of Chriſt*; all have an equal care for each other; all increaſe in love, and come to their *full ſtature*, to perfect manhood, *by that which every joint ſupplieth:* happineſs would circulate through this myſtical body without end, ſo as that each particle of it would, in due time, arrive at each individual point, or ſentient being, of the great whole, that each would *inherit all things*.

To ſtrengthen our preſumptions in favour of benevolence, as the primary purſuit of life, ſtill more; let it be conſidered, that its pleaſures lie open to all kinds and degrees of men, ſince every man has it in his power to benefit others, however ſuperior or inferior; and ſince we all ſtand in need of each other. And the difference which nature has put between us and the brutes, in making us ſo much more dependent upon, and neceſſary to, each other from the cradle to the grave, for life, health, convenience, pleaſure, education, and intellectual accompliſhments, ſo much leſs able to ſubſiſt ſingly, or even in ſmall bodies, than the brutes, may be conſidered as one mark of the ſuperior excellence of the ſocial pleaſures to man. All the tendencies of the events of life, ordinary and extraordinary, of the relations of life, of the foregoing pleaſures and pains, to connect us to each other, to convert accidental, natural, inſtituted aſſociations into permanent coaleſcenſes (for all this is effected by the power of aſſociation ſo much ſpoken of in theſe papers), ſo that two ill men can ſcarce become known to each other familiarly, without conceiving ſome love, tenderneſs, compaſſion, complacence for each other, are arguments to the ſame purpoſe. And

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our love to relations and friends, that have particular failings, teaches us to be more candid towards others, who have the like failings. At the ſame time it ſhews the conſiſtency of benevolence with itſelf, and its tendency to improve itſelf; that we love, eſteem, aſſiſt, and encourage the benevolent more than others; ſo that a benevolent action not only excites the receiver to a grateful return, but alſo the by-ſtander to approve and reward; and the benevolent man receives an hundred fold even in this world. But it would be endleſs to purſue this. Benevolence is indeed the grand deſign and purport of human life, of the preſent probationary ſtate; and therefore every circumſtance of human life muſt point to it, directly or indirectly, when duly conſidered.

Cor. 1. Since benevolence now appears to be a primary purſuit, it follows, that all the pleaſures of malevolence are forbidden, as being ſo many direct hinderances and bars to our happineſs. The pleaſures of ſenſation, imagination, ambition, and ſelf-intereſt, may all be made conſiſtent with benevolence, when limited by, and made ſubject to it, at leaſt in this imperfect ſtate; but thoſe of malevolence are quite incompatible with it. As far as malevolence is allowed, benevolence muſt be deſtroyed; they are heat and cold, light and darkneſs, to each other. There is, however, this exception; that where wiſhing evil to ſome, diſpoſes us be more benevolent upon the whole, as in the caſe of what is called a juſt indignation againſt vice, it may perhaps be tolerable in the more imperfect kinds of men, who have need of this direction and incitement to keep them from wandering out of the proper road, and to help them forward in it. But it is extremely dangerous to encourage ſuch a diſpoſition of mind by ſatire, invective, diſpute, however unworthy the opponent may be, as theſe practices generally end in rank malevolence at laſt. *The wrath of man worketh not the righteouſneſs of God.*

Cor. 2. As we muſt forego the pleaſures of malevolence, ſo we muſt patiently and reſolutely endure the pains of benevolence, particularly thoſe of compaſſion. But we ſhall not be loſers upon either of theſe accounts. The pleaſures of the moral ſenſe, which reſult from theſe virtues, will in the firſt caſe compenſate for what we forego, and in the laſt overbalance what we endure. Beſides which, mercy and forgiveneſs are themſelves pleaſures, and productive of many others in the event; and compaſſion generally puts us upon ſuch methods, as both make the afflicted to rejoice, and beget in ourſelves a ſtronger diſpoſition to rejoice with them. However, we may learn from theſe two corollaries, that as our paſſage through the four inferior, and, as it were, forbidden, claſſes of pleaſure and pain, is not entire ſelf-denial and ſufferance, ſo ſome degrees of theſe are neceſſary in reſpect of the three ſuperior claſſes. We muſt *weep with thoſe that weep*, as well as *rejoice with thoſe that rejoice.* In like manner, theopathy, and the moral ſenſe, are the occaſions of ſome pain, as well as of great and laſting pleaſure; as will appear hereafter. Now all this mixture of pain with pleaſure in each claſs, as alſo the difficulty which we find in bringing the inferior claſſes into a

due ſubordination to the ſuperior, are conſequences and marks of our fallen and degenerate ſtate.

Cor. 3. As benevolence is thus ſupported by many direct arguments, ſo there are ſimilar and oppoſite arguments, which ſhew that malevolence is the bane of human happineſs; that it occaſions miſery to the doer, as well as to the ſufferer; that it is infinitely inconſiſtent with itſelf, and with the courſe of nature, and that it is impoſſible, that it ſhould ſubſiſt for ever. Now theſe become ſo many indirect ones for benevolence, and for our making it the ſupreme pleaſure and end of our lives. In order to make this appear more fully, let us take a ſurvey of human life on the reverſe ſide to that which we have before conſidered. We ſhall there ſee, that injuries are increaſed in various ways by reciprocation, till at laſt mutual ſufferings oblige both parties to deſiſt; that the courſe and conſtitution of nature give us numberleſs admonitions to forbear; and that the hand of every man, and the power of every thing, is againſt the malevolent: ſo that, if we ſhould ſuppoſe the beings *A*, *B*, *C*, *D*, &c, to be purely malevolent, to have each of them an indefinite number of enemies, they would firſt ceaſe from their enmity on account of their mutual ſufferings, and become purely ſelfiſh, each being his own ſole friend and protector; and afterwards, by mutual good offices, endear themſelves to each other; ſo that at laſt each would have an indefinite number of friends, *i. e.* be indefinitely happy. This is indeed a kind of ſuppoſition; but its obvious correſpondence with what we ſee and feel in real life, is a ſtrong argument both of the infinite goodneſs of God, and of the conſequent doctrine of the tendency of all beings to unlimited happineſs through benevolence. For the beings *A*, *B*, *C*, *D*, &c. could no more ſtop at pure ſelfiſhneſs, or any other intermediate point, than they could reſt in pure malevolence. And thus the arguments, which exclude pure malevolence, neceſſarily infer pure unlimited benevolence.

PROP. CLXVIII.

To deduce practical Rules for augmenting the benevolent Affections, and ſuppreſſing the malevolent ones.

For this purpoſe we ought, Firſt, Diligently to practiſe all ſuch acts of friendſhip, generoſity, and compaſſion, as our abilities of any kind extend to; and rigorouſly to refrain from all ſallies of anger, reſentment, envy, jealouſy, &c. For though our affections are not directly and immediately ſubject to the voluntary power, yet our actions are; and conſequently our affections alſo mediately. He that at firſt practiſes acts of benevolence by conſtraint, and continues to practiſe them, will at laſt have aſſociated ſuch a variety of pleaſures with them, as to transfer a great inſtantaneous pleaſure upon them, and beget in himſelf the affections from which they naturally flow.

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In like manner, if we abſtain from malevolent actions, we ſhall dry up the ill paſſions, which are their ſources.

Secondly, It will be of great uſe frequently to reflect upon the great pleaſures and rewards attending on benevolence, alſo upon the many evils preſent and future, to which the contrary temper expoſes us. For thus we ſhall likewiſe transfer pleaſure and pain by aſſociation upon theſe tempers reſpectively; and rational ſelf-intereſt will be made to beget pure benevolence, and to extinguiſh all kinds and degrees of malevolence.

Thirdly, It is neceſſary to pray frequently and fervently (*i. e.* as far as we can excite fervour by our voluntary powers) for others, friends, benefactors, ſtrangers, enemies. All exertions of our affections cheriſh them; and thoſe made under the more immediate ſenſe of the divine attributes have an extraordinary efficacy this way, by mixing the love, awe, and other exalted emotions of mind attending our addreſſes to God, with our affections towards men, ſo as to improve and purify them thereby. Petitions for the increaſe of our benevolence, and ſuppreſſion of our malevolence, have the ſame tendency.

Fourthly, All meditations upon the attributes of God, and particularly upon his infinite benevolence to all his creatures, have a ſtrong tendency to refine and augment our benevolent affections.

Fifthly, The frequent conſideration of our own miſery, helpleſſneſs, ſinfulneſs, entire dependence upon God, &c. raiſes in us compaſſion for others, as well as concern, and earneſt deſires and prayers, for ourſelves. And compaſſion is, in this imperfect probationary ſtate, a moſt principal part of our benevolent affections.

PROP. CLXIX.

To deduce practical Rules for the Conduct of Men towards each other in Society.

Since benevolence is now proved to be a primary purſuit, it follows, that we are to direct every action ſo as to produce the greateſt happineſs, and the leaſt miſery, in our power. This is that rule of ſocial behaviour, which univerſal unlimited benevolence inculcates.

But the application of this rule in real life is attended with conſiderable difficulties and perplexities. It is impoſſible for the moſt ſagacious and experienced perſons to make any accurate eſtimate of the future conſequences of particular actions, ſo as, in all the variety of circumſtances which occur, to determine juſtly, which action would contribute moſt to augment happineſs, and leſſen miſery. We muſt therefore, inſtead of this moſt general rule, ſubſtitute others leſs general, and ſubordinate to it, and which admit of a more commodious practical application. Of this kind are the ten rules that follow. Where they coincide, we may ſuppoſe them to add ſtrength to each other;

where they are oppoſite, or ſeemingly ſo, to moderate and reſtrain one another; ſo as that the ſum total ſhall always be the beſt direction in our power for promoting the happineſs, and leſſening the miſery, of others.

The firſt rule is obedience to the ſcripture precepts in the natural, obvious, and popular meaning of them. That this muſt, in general, contribute to public good, needs no proof: piety and benevolence evidently coincide here, as in other caſes. The ſcripture precepts are indeed themſelves, *the rule of life*. But then there is the ſame ſort of difficulty in applying them accurately to particular caſes, as in applying the above-mentioned moſt general rule, by means of an eſtimate of the conſequences of actions. It is impoſſible, in many particular caſes, from the nature of language, to determine whether the action under conſideration come preciſely under this or that ſcripture precept, interpreted literally, as may appear from the endleſs ſubtleties and intricacies of caſuiſtical divinity. However, it cannot but be that the common and popular application muſt, for the moſt part, direct us to their true intention and meaning. Let every man therefore, in the particular circumſtances of real life, recollect the ſcripture precepts, and follow them in their firſt and moſt obvious ſenſe, unleſs where this is ſtongly oppoſite to ſome of the following rules; which yet will ſeldom happen.

Secondly, Great regard muſt be had both to our own moral ſenſe, and to that of others. This rule coincides remarkably with the foregoing. They are together the chief ſupports of all that is good, even in the moſt refined and philoſophical, as well as in the vulgar; and therefore muſt not be weakened, or explained away.

Thirdly, It is very proper in all deliberate actions to weigh, as well as we can, the probable conſequences on each ſide, and to ſuffer the balance to have ſome influence in all caſes, and the chief where the other rules do not interfere much, or explicitly. But to be determined by our own judgments as to conſequences, in oppoſition to the two foregoing rules, or to thoſe that follow, ſavours much of pride, and is often only a cloak for ſelf-intereſt and maliciouſneſs.

Fourthly, The natural motions of good-will, compaſſion, &c. muſt have great regard paid to them, leſt we contract a philoſophical hardneſs of heart, by endeavouring or pretending to act upon higher and more extenſively beneficial views, than vulgar minds, the ſofter ſex, &c. Some perſons carry this much too far on the other ſide, and encourage many public miſchiefs, through a falſe miſguided tenderneſs to criminals, perſons in diſtreſs through preſent groſs vices, &c. For the mere inſtantaneous motions of good-will and compaſſion, which are generated in ſo many different ways in different perſons, cannot be in all more than a good general direction for promoting the greateſt good.

Fifthly, The rule of placing ourſelves in the ſeveral ſituations of all the perſons concerned, and inquiring what we ſhould then expect, is of excellent uſe for directing, enforcing, and reſtraining our actions, and for begetting in us a ready, conſtant ſenſe of what is fit and equitable.

Sixthly,

Sixthly, Perſons in the near relations of life, benefactors, dependents, and enemies, ſeem to have, in moſt caſes, a prior claim to ſtrangers. For the general benevolence ariſes from our cultivation of theſe particular ſources of it. The root muſt therefore be cheriſhed, that the branches may flouriſh, and the fruit arrive to its perfection.

Seventhly, Benevolent and religious perſons have, all other circumſtances being equal, a prior claim to the reſt of mankind. Natural benevolence itſelf teaches this, as well as the moral ſenſe. But it is likewiſe of great importance to the public, thus to encourage virtue. Not to mention, that all opportunities and powers become more extenſively beneficial, by being entruſted with deſerving perſons.

Eighthly, Since the concerns of religion, and a future ſtate, are of infinitely more importance than thoſe which relate to this world, we ought to be principally ſolicitous about the eſtabliſhment and promotion of true and pure religion, and to make all our endeavours concerning temporal things ſubſervient to the precepts for teaching all nations, and for carrying the everlaſting goſpel to the ends of the earth.

Ninthly, We ought to pay the ſtricteſt regard to truth, both with reſpect to affirmations and promiſes. There are very few inſtances, where veracity of both kinds is not evidently conducive to public good, and falſehood in every degree pernicious. It follows therefore, that, in caſes where appearances are otherwiſe, the general regard to truth, which is of ſo much conſequence to the world, ought to make us adhere inviolably to it; and that it is a moſt dangerous practice to falſify, as is often done, from falſe delicacy, pretended or even real officiouſneſs, falſe ſhame, and other ſuch diſingenuous motives, or even from thoſe, that border upon virtue. The harm which theſe things do, by creating a mutual diffidence, and diſpoſition to deceive, in mankind, is exceedingly great; and cannot be counterbalanced by the preſent good effects, aſſigned as the reaſons for this practice. Yet ſtill the degrees are here, as in other caſes, ſo inſenſible, and the boundaries ſo nice, that it is difficult, or even impoſſible, to give any exact rule. A direct falſehood ſeems ſcarce to admit a toleration, whatever be thrown into the oppoſite ſcale; unleſs in caſes of madneſs, murder to be prevented, &c. Equivocations, concealments, pretences, are in general unjuſtifiable; but may perhaps be ſometimes allowed. The wiſdom of the ſerpent joined to the innocence of the dove, or chriſtian prudence to chriſtian ſimplicity and charity, will generally enable men to avoid all difficulties. There is ſcarce any thing which does greater violence to the moral ſenſe in well educated perſons, than diſingenuity of any kind, which is a ſtrong argument againſt it. Lies and liars are particularly noted in the prophetical writings, and the great ſin of idolatry is repreſented under this image. As to falſe oaths, affirmative or promiſſory, there ſeems to be no poſſible reaſon ſufficient to juſtify the violation of them. The third commandment, and the reverence due to the divine majeſty, lay an abſolute reſtraint here.

Tenthly, Obedience to the civil magiſtrate is a ſubordinate general rule of the utmoſt importance. It is evidently for the public good, that every member of a ſtate

ſhould

ſhould ſubmit to the governing power, whatever that be. Peace, order, and harmony, reſult from this in the general; confuſion and miſchief of all kinds from the contrary. So that though it may and muſt be ſuppoſed, that diſobedience, in certain particular caſes, will, as far as the ſingle act, and its immediate conſequences, are conſidered, contribute more to public good, than obedience; yet, as it is a dangerous example to others, and will probably lead the perſon himſelf into other inſtances of diſobedience afterwards, &c. Diſobedience in every caſe becomes deſtructive of public happineſs upon the whole. To this we may add, that as part of our notions of, and regards to, the Deity, are taken from the civil magiſtrate; ſo, converſely, the magiſtrate is to be conſidered as God's vicegerent on earth; and all oppoſition to him weakens the force of religious obligations, as well as of civil ones; and if there be an oath of fidelity and ſubmiſſion, or even a bare promiſe, this will give a farther ſanction. Laſtly, the precepts of the New Teſtament given under very wicked governors, and the whole tenor of it, which ſuppoſes chriſtians to have higher views, and not to intermeddle with the kingdoms of this world, enjoin an implicit ſubmiſſion.

We ought therefore, in conſequence of this tenth rule, to reverence all perſons in authority; not to paſs haſty cenſures upon their actions; to make candid allowances on account of the difficulties of government, the bad education of princes, and perſons of high birth, and the flatteries, and extraordinary temptations, with which they are ſurrounded; to obſerve the laws ourſelves, and promote the obſervance of them, where the penalties may be evaded, or are found inſufficient; to look upon property as a thing abſolutely determined by the laws; ſo that though a man may and ought to recede from what the law would give him, out of compaſſion, generoſity, love of peace, view of the greater good to the whole, &c. yet he muſt never evade, ſtrain, or in any way do violence to the laws, in order to obtain what he may think his own according to equity; and wherever he has offended, or is judged by lawful authority to have offended, he muſt ſubmit to the puniſhment, whatever it be.

Here two things may be objected in reſpect of this tenth rule: Firſt, That the duty to magiſtrates ought to be deduced from the origin of civil government. Secondly, That it is lawful to reſiſt the ſupreme magiſtrate openly, in thoſe caſes, where the good conſequences of open reſiſtance appear in the ultimate reſult to overbalance the ill conſequences.

To the firſt I anſwer, that we here ſuppoſe benevolence to be the rule of duty, public good the end of benevolence, and ſubmiſſion to magiſtrates the means of promoting the public good. Unleſs therefore ſomething can be objected to one of theſe three poſitions, the concluſion, that ſubmiſſion to magiſtrates is a duty, muſt ſtand. It appears to me alſo, that this method of deducing obedience to magiſtrates is much more ſimple and direct, than that from the origin of civil government. For the real origin of civil government having been either the gradual tranſition and degeneration of parental patriarchal authority (which being originally directed by pure love, and ſupported by abſolute

abſolute authority, can never be paralleled now) into ſmall monarchies in the ancient world, of which we know nothing accurately; or the uſurped power of conquerors and tyrants; or the delegated power of thoſe, who in difficult and factious times have gained over the minds of the populace to themſelves, and balanced the intereſts and ambition of particulars againſt one another; it ſeems that little of uſe to public happineſs can be drawn from theſe patterns, where the perſons concerned were either very little ſolicitous about public happineſs, or very little qualified to make a proper eſtimate of the beſt methods of attaining it, or, laſtly, were obliged to comply with the prejudices, and eſtabliſhed cuſtoms, of an ignorant head-ſtrong multitude. The only pattern of great uſe and authority appears to be the *Jewiſh* theocracy. As to the fictitious ſuppoſition, that a ſet of philoſophers, with all their natural rights about them, agree to give up certain of theſe, in order to preſerve the reſt, and promote the good of the whole, this is too large a field. Beſides, public good muſt either be made the criterion of natural rights, and of the obligation to give them up, &c. which would bring this hypotheſis to coincide with the direct obvious conſiderations above-mentioned; or, if any other criterion be aſſumed, the determinations will be falſe. This method of reaſoning has been adopted too ſervilely, by the force which aſſociation has over the human mind, from the technical methods of extending human laws to caſes not provided for explicitly, and particularly from the reaſonings made uſe of in the civil law. However, the writers of this claſs have delivered many excellent particular precepts, in relation to the duties both of public and of private life; and therefore have deſerved well of the world, notwithſtanding that their foundation for the laws of nature and nations be liable to the foregoing objections.

Secondly, It is ſaid, that there are certain caſes, in which open reſiſtance is lawful. And it muſt be owned, that where there is no oath of allegiance, or where that oath is plainly conditional, caſes may be put, where reſiſtance with all its conſequences ſeems more likely to produce public good, than non-reſiſtance. If therefore a man can lay his hand upon his heart, and fairly declare, that he is not influenced by ambition ſelf-intereſt, envy, reſentment, &c. but merely by tenderneſs and good-will to the public, I cannot preſume to ſay, that he is to be reſtrained, or that chriſtianity, that *perfect law of liberty*, whoſe end is *peace* and *good-will to men*, ſhould be made an obſtruction to any truly benevolent endeavours, where chriſtian *liberty* is not made uſe of as *a cloak for maliciouſneſs*. But theſe caſes are ſo rare, that it is needleſs to give any rules about them. In public diſturbances, when men's paſſions are up, there are ſo many violences on all hands, that it is impoſſible to ſay, which ſide one would wiſh to have uppermoſt; only there is always a prejudice in favour of the laſt eſtabliſhment, becauſe the minds of the multitude may be quieted ſooner by getting into the former road. Rules of this kind can only be ſuppoſed to relate to thoſe that are diſpoſed to obey them, which are very few in compariſon. If one could ſuppoſe, that all would obey implicitly, no diſturbance could ariſe; if all diſobey, it is infinite anarchy.

Therefore

Therefore, of all the intermediate ſuppoſitions, thoſe ſeem to be the beſt, in which moſt obey. In ſhort, it appears to be the duty of a good chriſtian to ſit ſtill, and ſuffer the children of this world to diſpute and fight about it; only ſubmitting himſelf to the powers in being, whatever they are (they cannot be entitled to leſs regard than the heathen emperors, to whom the apoſtles enjoined obedience) for the ſake of peace and quietneſs to himſelf and others; and, as much as in him lies, moderating the heats and animoſities of parties againſt each other. However, I do not mean, that thoſe who, according to the conſtitution of a government, have an executive or legiſlative power lodged with them, ſhould not exert it with authority. As to the caſe of oaths, no view of public good can be ſufficient to ſuperſede ſo ſecret an obligation. And thus it is not only allowed to, but even required of, a good chriſtian, to be active in the defence of an eſtabliſhment, to which he has given an oath to that purpoſe.

Other rules, beſides the ten foregoing, might be aſſigned, or theſe expreſſed in a different way. I have put down thoſe which appear to me to be, in fact, the chief principles of ſocial conduct to wiſe and good men. They muſt all be ſuppoſed to influence and interpret each other. Let a man only diveſt himſelf of all ſelf-regards, as much as poſſible, and love his neighbour as himſelf, and God above all, and he will generally find ſome point, and that without much difficulty or perplexity, in which all theſe rules unite to produce the greateſt good, upon the whole, to all the perſons concerned.

I proceed next to conſider briefly the ſeveral principal relations of life, and the duties ariſing from them, according to the foregoing or ſuch like rules.

The firſt of theſe is that of huſband and wife. The loving our neighbour as ourſelves begins here. This is the firſt inſtance of it; and, where this love is mutual and perfect, there an entire equality of the two ſexes takes place. The authority of the man is only a mark of our preſent degenerate ſtate, by reaſon of which dominion muſt be placed ſomewhere, and therefore in the man, as being of greater bodily ſtrength and firmneſs of mind. But this is that kind of right or property, which men are obliged to give up, though women are alſo obliged to acknowledge it. Suppoſe the ſexes to ſhare all their joys and griefs perfectly, to have an entire concern for each other, and eſpecially for each other's eternal welfare, and they are, as it were, reinſtated in paradiſe; and the dominion of the man over the woman, with her ſubjection, and conſequent reluctance, can only take place again upon their mutual tranſgreſſion. And though in this imperfect ſtate it ſeems impoſſible, from the theory above given, for any one to love another, in every branch of deſire and happineſs, entirely as himſelf; yet there appear to be ſuch near approaches to it in benevolent, devout, married perſons, united upon right motives, as to annihilate all conſiderable, or even perceptible diſtinction. It is of the utmoſt importance, that this grand foundation of all benevolence be duly laid, on account both of public and private happineſs. The chief or only means of doing this is religion. Where both parties have it in a high degree, they cannot fail of

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mutual happineſs; ſcarce, if one have it: where both are greatly defective in this principal article, it is almoſt impoſſible but diſſenſions, uneaſineſs, and mutual offences, ſhould ariſe.

The ſecond great relation of life is that of parents to children; the principal duty of which is the giving a right education, or the imprinting ſuch aſſociations upon the minds of children, as may conduct them ſafe through the labyrinths of this world to a happy futurity. Religion therefore here again appears to be the one only neceſſary thing. It is the deſign of the preſent chapter to ſhew, that it contributes as certainly to give us the *maximum* of happineſs in this world, at leaſt the faireſt proſpect of it, as to ſecure it in the next. So that a parent muſt be led to the inculcating virtue in every view. The chief errors in education are owing to the want of this perſuaſion in a practical way; or to a falſe tenderneſs and opinion of the parent, whereby he is led to believe, or flatter himſelf, that his child's nature is not ſo degenerate and corrupt, as to require frequent corrections and reſtraints, with perpetual encouragements and incentives to virtue by reward, example, advice, books, converſation, &c. Otherwiſe it would appear from the hiſtory of the mind, its affections and paſſions, before given, that few children would miſcarry. Where due care is taken from the firſt, little ſeverity would ordinarily be neceſſary; but, in proportion as this care is neglected in the firſt years, a much greater degree of care, with high degrees of ſeverity both bodily and mental, become abſolutely requiſite to preſerve from miſery here and hereafter. We ſee that men of the ordinary ſtandard in virtue are ſeldom brought to a ſtate of repentance and ſalvation, without great ſufferings, both bodily and mental, from diſeaſes, ſad external accidents, deaths of friends, loſs of fortunes, &c. How then can it be ſuppoſed, that children can be brought into the right way, without analogous methods, both bodily and mental, though gentler indeed, in proportion as the child's age is more tender? And this ought to make all affectionate parents labour from the earlieſt dawnings of underſtanding and deſire, to check the growing obſtinacy of the will; curb all ſallies of paſſion; impreſs the deepeſt, moſt amiable, reverential, and awful apprehenſions of God, a future ſtate, and all ſacred things; reſtrain anger, jealouſy, ſelfiſhneſs; encourage love, compaſſion, generoſity, forgiveneſs, gratitude; excite, and even compel to, ſuch induſtry as the tender age will properly admit. For one principal end and difficulty of life is to generate ſuch moderate, varying, and perpetually actuating motives, by means of the natural ſenſible deſires being aſſociated with, and parcelled out upon foreign objects, as may keep up a ſtate of moderate cheerfulneſs, and uſeful employment, during the whole courſe of our lives: whereas ſenſual, blind, and uninformed deſire preſſes violently for immediate gratification, is injurious to others, and deſtroys its own aims, or, at the beſt, gives way only to ſpleen and diſſatisfaction.

As to the other duties towards children, ſuch as care of their preſent and future health of body, proviſion of external neceſſaries and conveniencies for them, &c. they are

ſufficiently obvious, and can ſcarce be neglected by thoſe, who are truly ſolicitous about the principal point, a religious education.

The duties of children to parents are ſubmiſſion, obedience, gratitude even to the worſt. For it can ſcarce be ſuppoſed, that children have not great obligations to their parents, upon the whole. And as the love of parents to children may ſerve to give parents a feeling conviction of the infinite benevolence of God our heavenly Father, ſo the ſubmiſſion of children to parents is the pattern of, and introduction to, true religion; and therefore is of infinite importance to be duly paid. Which may ſerve as an admonition both to parents, to ſhew themſelves fit vicegerents of God, and to children to give them the reſpect due to them as ſuch.

As the reciprocal duties between parents and children are patterns of the reciprocal duties between ſuperiors and inferiors of all kinds; ſo the duties and affections between brethren and ſiſters are our guides and monitors in reſpect of equals: both which things are intimated in theſe and ſuch like ſcripture phraſes; *intreat an elder as a father, the younger men as brethren; love as brethren*, &c. The ſeveral events of childhood, the conjunction of intereſts, the examples of others, &c. impreſs upon us a greater concern, love, compaſſion, &c. for all perſons nearly related to us in blood, than for others in like circumſtances. And though the ultimate ratio of duty is to love every man equally, becauſe we are to love every man as ourſelves; yet ſince our condition here keeps us in ſome degree the neceſſary ſlaves of ſelf-love, it follows that neither ought we to love all perſons equally, but our relations, friends, and enemies, preferably to utter ſtrangers; leſt, in endeavouring to love all equally, we come not to love others more, but our brethren leſs, than we did before.

The cleaving of our affections to all with whom we have frequent pleaſing intercourſes, with mutual obligations, is the foundation of friendſhip; which yet cannot ſubſiſt long, but amongſt the truly religious. And great care ought to be taken here, not to have men's perſons in admiration, not to eſteem our friend a nonpareil. There is great pride and vanity in this, juſt as in the like opinions concerning ourſelves, our children, poſſeſſions, &c. Such intimacies, by exalting one above meaſure in our love and eſteem, muſt depreſs others; and they generally end in jealouſies and quarrels, even between the two intimates. All men are frail and imperfect, and it is a great injury to any man, to think more highly of him than he deſerves, and to treat him ſo. Our regards cannot continue long ſtrained up to an unnatural pitch. And if we conſider, that we all have a proper buſineſs in life, which engages us in a variety of chriſtian actions, and conſequently of friendſhips and intimacies, this peculiar attachment of one perſon to another of the ſame ſex will appear inconſiſtent with the duties of life. Where the ſexes are different, ſuch an attachment is either with a view to marriage, or elſe it becomes liable to ſtill greater objections.

As to enemies, the forgiving them, praying for them, doing them good offices, compaſſion to them as expoſing themſelves to ſufferings by a wrong behaviour, the

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ſenſe of our having injured them, which is generally the caſe more or leſs, &c. have in generous and religious men a peculiar tendency to excite love and compaſſion for them.

The laſt relation which I ſhall conſider is that of magiſtrates, *i. e.* the perſons who in each ſociety have the legiſlative or executive powers, or both, committed to them. The duty ariſing from this relation may be diſtinguiſhed into two branches. Firſt, That towards the perſons over whom the magiſtrate preſides; ſecondly, that towards other ſtates.

In reſpect of the firſt, we may at once affirm, that the principal care of a magiſtrate, of the father of a people, is to encourage and enforce benevolence and piety, the belief and practice of natural and revealed religion; and to diſcourage and reſtrain infidelity profaneneſs, and immorality, as much as poſſible. And this,

Firſt, Becauſe the concerns of another world are of infinitely greater importance than any relating to this; ſo that he who wiſhes well to a people, and preſides over them for their good, cannot but be chiefly ſolicitous and induſtrious in this particular.

Secondly, Becauſe even the preſent well-being of ſtates depends entirely upon the private virtues of the ſeveral ranks and orders of men. For the public happineſs is compounded of the happineſs of the ſeveral individuals compoſing the body politic; and the virtues of induſtry, temperance, chaſtity, meekneſs, juſtice, generoſity, devotion, reſignation, &c. have a tendency to promote the happineſs both of the perſons that poſſeſs them, and of others.

It will therefore be the duty of the magiſtrate, in making and executing laws, to inquire which method appears to be moſt conducive to virtue in the people, to purſue this ſimply and ſteadily, and not to doubt but that all the ſubordinate ends of government, as thoſe of increaſing the riches and power of the ſtate, promoting arts and ſciences, &c. will be obtained in ſuch degrees as they ought, as are productive of real happineſs to the people, by the ſame means. But where it is doubtful what method is moſt conducive to virtue, there the ſubordinate ends are to be taken into conſideration, each according to its value: juſt as in the caſe of ſelf-intereſt in individuals; where benevolence, piety, and the moral ſenſe, are entirely ſilent, there cool, rational ſelf-intereſt may, and, as it appears, ought to be admitted as a principle of action.

As to foreign ſtates, they, and conſequently the magiſtrates which preſide over them, are under the ſame obligations, as private perſons are in reſpect of each other. Thus, ſince a private perſon, in order to obtain his own greateſt happineſs, even in this world, muſt obey the precepts of benevolence, piety, and the moral ſenſe, with an abſolute and implicit confidence in them; ſo ſtates, *i. e.* their governors or repreſentatives, ought to deal with each other according to juſtice, generoſity, charity, &c. even from the mere principle of intereſt. For the reaſon is the ſame in both caſes. If individuals be all members of the ſame myſtical body, much more are ſtates, *i. e.* large collections of individuals. They ought therefore to have the ſame care for each

other, as for themſelves; and whoever is an aggreſſor, or injurious, muſt expect to ſuffer, as in private life. *They that take the ſword ſhall periſh by the ſword. He that leadeth into captivity muſt go into captivity. Babylon muſt receive double for all her inſults upon other nations*, &c. All which is verified by obſervation, both in regard to private perſons, and to ſtates, as far as it is reaſonable for us to expect to ſee it verified, in this our ignorance of the real quantities of virtue and vice, and of happineſs and miſery. But in all obſervations of this kind we ought conſtantly to bear in mind, that God's *judgments are unſearchable, and his ways paſt finding out*, in particular caſes, though ſufficiently manifeſt in the general courſe and tenor of things. By the laſt he ſhews us his moral attributes, his providence, and his relation to us as our governor; by the firſt he humbles the pride, raſhneſs, and ſelf-conceit, of human underſtanding.

It may not perhaps be improper here to ſay ſomething concerning the lawfulneſs of war. Now this regards either the magiſtrate, or the ſubject. Firſt, then, it is very evident, that as private perſons are, in general, prohibited by the law of Chriſt to revenge themſelves, reſiſt evil, &c. ſo are ſtates, and conſequently, magiſtrates. But then as private perſons have, under chriſtianity, that *perfect law of liberty*, a power to puniſh injuries done to themſelves, oppoſe violence offered to themſelves, &c. when their view in this is a ſincere regard to others, as affected by theſe injuries and violences, ſo magiſtrates have a power, and by conſequence lie under an obligation, of the like kind, where the real motive is tenderneſs to their own people in a juſt cauſe, or a regard to the general welfare of their own ſtate, and the neighbouring ones. Secondly, Though it ſeems entirely unjuſtifiable for private perſons to enter upon the profeſſion of war wantonly, and with a view to riches, honours, &c. eſpecially ſince ſo much violence and cruelty, and ſo many temptations, attend this profeſſion; yet where a perſon is already engaged, and has very urgent reaſons reſtraining him from withdrawing, or receives a particular command from a lawful magiſtrate, it ſeems to be allowable, or even his duty.

SECT.

SECT. VII.

OF THE REGARD DUE TO THE PLEASURES AND PAINS OF THEOPATHY IN FORMING THE RULE OF LIFE.

PROP. CLXX.

The Love of God regulates, improves, and perfects all the other Parts of our Nature; and affords a Pleaſure ſuperior in Kind and Degree to all the reſt: it is therefore our primary Purſuit, and ultimate End.

In what manner the precepts of piety regulate, improve, and perfect the four inferior claſſes of pleaſure, viz. thoſe of ſenſation, imagination, ambition, and ſelf-intereſt, has been ſhewn already in this chapter. But the precepts of piety are thoſe which teach us, what homage of our affections, and external actions, ought to be addreſſed to the Deity in a direct and immediate manner; and it will appear under the two next propoſitions, in which the affections and actions enjoined by piety are particularly conſidered, that all theſe terminate ultimately in the love of God, and are abſorbed by it: the love of God does therefore regulate, improve, and perfect all the four inferior claſſes of pleaſure.

The ſame thing is evident with reſpect to the whole of our natures, in a ſhorter manner, and according to the uſual ſenſe, in which the phraſe of the *love of God* is taken. For the perpetual exertion of a pleaſing affection towards a being infinite in power, knowledge, and goodneſs, and who is alſo our friend and father, cannot but enhance all our joys, and alleviate all our ſorrows; the ſenſe of his preſence and protection will reſtrain all actions, that are exceſſive, irregular, or hurtful; ſupport and encourage us in all ſuch as are of a contrary nature; and infuſe ſuch peace and tranquillity of mind, as will enable us to ſee clearly, and act uniformly. The perfection therefore of every part of our natures muſt depend upon the love of God, and the conſtant comfortable ſenſe of his preſence.

With reſpect to benevolence, or the love of our neighbour, it may be obſerved, that this can never be free from partiality and ſelfiſhneſs, till we take our ſtation in the divine nature, and view every thing from thence, and in the relation which it bears to God.

God. If the relation to ourſelves be made the point of view, our proſpect muſt be narrow, and the appearance of what we do ſee diſtorted. When we conſider the ſcenes of folly, vanity, and miſery, which muſt preſent themſelves to our ſight in this point; when we are diſappointed in the happineſs of our friends, or feel the reſentment of our enemies; our benevolence will begin to languiſh, and our hearts to fail us; we ſhall complain of the corruption and wickedneſs of that world, which we have hitherto loved with a benevolence merely human; and ſhew by our complaints, that we are ſtill deeply tinctured with the ſame corruption and wickedneſs. This is generally the caſe with young and unexperienced perſons, in the beginning of a virtuous courſe, and before they have made a due advancement in the ways of piety. Human benevolence, though *ſweet in the mouth*, is *bitter in the belly*; and the diſappointments which it meets with, are ſometimes apt to incline us to call the divine goodneſs in queſtion. But he who is poſſeſſed of a full aſſurance of this, who loves God with his whole powers, as an inexhauſtible fountain of love and beneficence to all his creatures, at all times, and in all places, as much when he chaſtiſes, as when he rewards, will learn thereby to love enemies, as well as friends; the ſinful and miſerable, as well as the holy and happy; to rejoice, and give thanks, for every thing which he ſees and feels, however irreconcileable, to his preſent ſuggeſtions; and to labour, as an inſtrument under God, for the promotion of virtue and happineſs, with real courage and conſtancy, *knowing that his labour ſhall not be in vain in the Lord.*

In like manner, the moral ſenſe requires a perpetual direction and ſupport from the love of God, in order to keep it ſteady and pure. When men ceaſe to regard God in a due meaſure, and to make him their ultimate end, having ſome other end, beyond which they do not look, they are very apt to relapſe into negligence and calloſity, and to act without any virtuous principle; and, on the other hand, if they often look up to him, but not with a filial love and confidence, thoſe *weighty matters of the law*, they *tithe mint, aniſe, and cumin*, and fill themſelves with endleſs ſcruples and anxieties about the lawfulneſs and unlawfulneſs of trivial actions: whereas he who loves God with all his heart, cannot but have a conſtant care not to offend him, at the ſame time that his amiable notions of God, and the conſciouſneſs of his love and ſincerity towards him, are ſuch a fund of hope and joy, as precludes all ſcruples that are unworthy of the divine goodneſs, or unſuitable to our preſent ſtate of frailty and ignorance.

We are next to ſhew, that the love of God affords a pleaſure which is ſuperior in kind and degree to all the reſt, of which our natures are capable. Now this will appear.

Firſt, Becauſe *God is light, and in him there is no darkneſs at all*; becauſe he is *love* itſelf, ſuch love as quite *caſts out all fear*. The love and contemplation of his perfection and happineſs will transform us into his likeneſs, into that image of him in which we were firſt made; will make us *partakers of the divine nature*, and conſequently of the perfection and happineſs of it. Our wills may thus be united to his will, and therefore rendered free from diſappointments; we ſhall, by degrees, ſee every thing as God ſees it, *i. e.* ſee every thing that he has made to be good, to be an object of pleaſure. It is true,

true, that all this, in its perfect ſenſe, in its ultimate ratio, can only be ſaid by way of anticipation: whilſt we carry theſe fleſhly tabernacles about with us, we muſt have croſſes to bear, frailties, and thorns in the fleſh, to ſtruggle with. But ſtill our ſtrength will at laſt be made perfect through weakneſs; and ſome devout perſons appear to have been ſo far transformed, in this life, as to acquieſce, and even rejoice, in the events of it, however afflicting apparently, to be freed from fear and ſolicitude, and to receive their daily bread with conſtant thankfulneſs, *with joy unſpeakable, and full of glory*. And though the number of theſe happy perſons has probably been very ſmall comparatively, though the path be not frequented and beaten; yet we may aſſure ourſelves, that it is in the power of all to arrive at the ſame ſtate, if their love and devotion be ſufficiently earneſt. All other loves, with all their defilements and idolatries, will die away in due order and proportion, in the heart, which yields itſelf to God: for they are all impure and idolatrous, except when conſidered as the methods appointed by God to beget in us the love of himſelf: they all leave ſtains; have a mixture of evil, as well as of good; they muſt all be tried and purified by the fire of his love, and paſs thereby from human to divine.

Secondly, God is our centre, and the love of him a pleaſure ſuperior to all the reſt, not only on account of the mixture of pain in all the reſt, as ſhewn in the laſt paragraph, but alſo becauſe they all point to it, like ſo many lines terminating in the ſame centre. When men have entered ſufficiently into the ways of piety, God appears more and more to them in the whole courſe and tenor of their lives; and by uniting himſelf with all their ſenſations, and intellectual perceptions, overpowers all the pains; augments, and attracts to himſelf, all the pleaſures. Every thing ſweet, beautiful, or glorious, brings in the idea of God, mixes with it, and vaniſhes into it. For all is God's; he is the only cauſe and reality; and the exiſtence of every thing elſe is only the effect, pledge, and proof, of his exiſtence and glory. Let the mind be once duly ſeaſoned with this truth, and its practical applications, and every the moſt indifferent thing will become food for religious meditation, a book of devotion, and a pſalm of praiſe. And when the purity and perfection of the pleaſures of theopathy, ſet forth in the laſt article, are added to their unlimited extent, as it appears in this, it is eaſy to ſee, that they muſt be far ſuperior to all the reſt both in kind and degree. We may ſee alſo, that the frame of our nature, and particularly its ſubjection to the power of aſſociation, has an obvious and neceſſary tendency to make the love of God, in fact, ſuperior to our other affections. If we ſuppoſe creatures ſubject to the law of aſſociation to be placed in the midſt of a variety of pleaſures and pains, the ſum total of the firſt being greater than that of the laſt, and to connect God with each as its ſole cauſe, pain will be overpowered by pleaſure, and the indefinite number of compound pleaſures reſulting from aſſociation be at laſt united entirely with the idea of God. And this our ultimate happineſs will be accelerated or retarded, according as we apply ourſelves more or leſs to the cultivation of the devout affections, to reading, and meditation upon divine ſubjects, to prayer

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and praiſe. Thus we ſhall the ſooner learn to join with the angels, and *ſpirits of juſt men made perfect*, in aſcribing *power, and riches, and wiſdom, and ſtrength, and honour, and glory, and bleſſing*, and every aſſociated luſtre, to their true fountain, *to God and the Lamb.*

Thirdly, As all the other pleaſures have a mixture of pain and impurity in them, and are all evidently means, not ends, ſo are the objects of them frequently taken from us; whereas no time, place, or circumſtance of life, can deprive us of, no height, depth, or creature of any kind, can ſeparate us from, the love of God. Our hearts may be turned to him in the greateſt external confuſion, as well as in the deepeſt ſilence and retirement. All the duties of life, when directed to God, become pleaſures; and by the ſame means, every the ſmalleſt action becomes the diſcharge of the proper duty of the time and place. Thus we may redeem our time, and turn it to the beſt advantage; thus we may convert every ſituation and event of life into preſent comfort, and future felicity.

Fourthly, When the love of God is made thus to ariſe from every object, and to exert itſelf in every action, it becomes of a permanent nature, ſuitable to our preſent frame; and will not paſs into deadneſs and diſguſt, as our other pleaſures do from repeated gratification.

It is true indeed, that novices in the ways of piety and devotion are frequently, and more experienced perſons ſometimes, affected with ſpiritual aridity and dejection; but then this ſeems to be either from pride, or ſpiritual ſelfiſhneſs, *i. e.* from the impurity of their love to God. They give themſelves up perhaps to raptures, and ecſtatic tranſports, from the preſent pleaſures which they afford, to the neglect of the great duties of life, of charity, friendſhip, induſtry; or they think themſelves the peculiar favourites of heaven on account of theſe raptures; and deſpiſe and cenſure others, as of inferior claſſes, in the ſchool of piety. Now theſe violent agitations of the brain cannot recur often without paſſing out of the limits of pleaſure into thoſe of pain; and particularly into the mental pains of moroſeneſs, jealouſy, fear, dejection, and melancholy. Both the greatneſs and the fameneſs of the pleaſures concur, as in other caſes, to convert them into pains. But it does not appear, that thoſe who ſeek God in all his works, and receive all the pleaſures and pains which the order of his providence offers, with thankfulneſs, and fidelity in their duty, as coming from his hand, would either want that variety, or that temperature, which in our preſent ſtate is neceſſary to make the love of God a perpetual fund of joy. And it ſeems peculiarly proper to remark here, that if the primitive chriſtians, inſtead of retiring into deſarts, caves, and cells, for the cultivation of ſpeculative devotion, had continued to ſhew forth and practiſe the love of God by expoſing themſelves to all ſuch difficulties and dangers, as had ariſen in the inceſſant propagation of the everlaſting goſpel, to *every nation, and kindred, and tongue, and people*, they would perhaps have rejoiced evermore, even in the greateſt tribulations, as the apoſtles, and their immediate followers, who *kept* their *firſt love*, ſeem

ſeem to have done; alſo that the preſent and future generations of chriſtians can never be delivered from ſuperſtitious fears and anxieties, from dryneſs, ſcrupuloſity, and dejection, till they *go into all the world, and preach the goſpel to every creature*, according to our Saviour's laſt command. However, till this happy time comes, the alloy of the pleaſures of theopathy with pain ſerves to remind us of our fallen ſtate, and of the greatneſs of our fall, ſince our primary and pureſt pleaſures are ſubject to ſuch an alloy; and thus, learning compaſſion, humility, and ſubmiſſion to God, we ſhall be exalted thereby, and, after we have *ſuffered a while, be perfected, ſtabliſhed, ſtrengthened, ſettled.*

PROP. CLXXI.

To deduce practical Rules concerning the Theopathetic Affections, Faith, Fear, Gratitude, Hope, Truſt, Reſignation, and Love.

OF FAITH IN GOD.

THE firſt of the theopathetic affections is faith. *He that cometh to God muſt believe that he is; and that he is a rewarder of them that diligently ſeek him.* But this faith is of very different degrees, even in thoſe who equally acknowledge their belief of the exiſtence of God, and agree in their expreſſions concerning his nature and attributes, according as their ideas of this kind are more or leſs vivid and perfect, and recur more or leſs frequently in the events of life. It is probable indeed, that no man, eſpecially in a chriſtian country, can be utterly devoid of faith. The impreſſion made upon us in infancy, our converſation afterwards, the books that we read, and the wonders of the viſible world, all concur to generate ideas of the power and knowledge of God at leaſt, and to excite ſuch degrees of fear, as give a reality to the ideas, and extort ſo much of aſſent, that the moſt profeſſed atheiſts, did they reflect upon what paſſes in their thoughts, and declare it ſincerely, could not but acknowledge, that at certain times they are like *the devils*, who *believe and tremble.* After theſe come the perſons who dare not but own God in words, who have few or no objections to his nature and attributes, or who can even produce many arguments and demonſtrations in favour of them; and yet put away the thoughts of God as much as they are able. The next degree is of ſuch as try to *ſerve God and mammon* together, in various proportions; till at laſt we come to thoſe, whoſe *heart is perfect before God*, who love him with all their powers, and *walk in his preſence* continually. Now this laſt ſtate of faith is that which the ſcripture puts as equivalent to our whole duty: for in this laſt ſtate it comprehends, and coincides with, all the other theopathetic affections, when they are likewiſe carried to their ultimate perfection. In their firſt riſe they all differ from one another; in their laſt ſtate they all unite together, and may be expreſſed by the name of any ſingle one, when ſuppoſed perfect; though the moſt uſual, proper, and emphatic

appellation ſeems to be the phraſe of *the love of God*, as before noted. Let us now inquire by what methods men may be moſt accelerated in their progreſs from the firſt dawnings of faith in infancy to its ultimate perfection.

Firſt, then, An early acquaintance with the ſcriptures, and the conſtant ſtudy of them, is the principal means whereby this faith is firſt to be generated, and afterwards improved and perfected. God taught mankind before the flood, and for ſome ages afterwards, his exiſtence, nature, and attributes, by expreſs revelation; and therefore it cannot but be the proper method for begetting faith in children, who are more ignorant, and unqualified for rational deductions, than adults in the rudeſt ages of the world, to initiate them early in the records of religion. And though afterwards *the inviſible things of God* may be known by the viſible creation, yet the miracles delivered in the ſcriptures have a peculiar tendency to awaken the attention, and to add that force, luſtre, and veneration, to our ideas of God, and his attributes, which are the cauſes and concomitants of aſſent or faith, according to the theory of theſe papers. The ſame thing holds of the prophecies, precepts, promiſes, and threatenings, of the ſcriptures, in their reſpective degrees; and it ſeems, in a manner, impoſſible for any one to be perpetually converſant in them, without this happy influence. All thoſe perſons therefore, who are ſo far advanced in faith, as to cry out with the father of the lunatic in the goſpel, *Lord, I believe; help thou my unbelief*; ought, in conſequence of this prayer, to apply themſelves to the daily ſtudy of, and meditation upon, the ſcriptures. To which it is to be added, that as faith in Chriſt is alſo neceſſary, as well as faith in the one God and Father of all, and can be learnt no other way than from the ſcriptures, we ought upon this account alſo to eſteem them as the principal means, which God has put in our power, for the generation and improvement of our faith: *faith cometh by hearing, and hearing by the word of God.*

Secondly, To the ſtudy of the word of God muſt be joined that of his works. They are in all things analogous to each other, and are perpetually comments upon each other. I do not mean, that a man muſt be a deep philoſopher, in order to have faith in God; for, on the contrary, philoſophical reſearches, when purſued from curioſity or ambition, are *vain deceit*, and lead people to *make ſhipwreck of faith*. I would only recommend to every perſon, according to his knowledge and abilities, to conſider the works of God as his works; to refer all the power, wiſdom, and goodneſs in them, to him, as the ſole fountain of theſe; and to dwell upon the vaſtneſs, the luſtre, the beauty, the beneficence, which are obvious to vulgar as well as philoſophic eyes, till ſuch time as they have raiſed devotion in the heart. Such exerciſes would greatly aſſiſt to overcome that gloomineſs and ſcepticiſm, which ſometimes hang about our conceptions of the inviſible world, and by their reiterated impreſſions generate the cauſes of aſſent. We have examples of this in the Old Teſtament, particularly in the *Pſalms*; and the writers do not ſeem to have been eminent for any peculiar depth in curious inquiries. Men of the ordinary ranks in life in theſe times have as much probably

probably of the myſteries of nature unfolded to them, as great ſaints in ancient times; ſo that they want nothing to enable them to draw the ſame faith and devotion from the works of creation, but the ſame earneſt deſire to do it.

Thirdly, An upright heart, and a ſincere endeavour to do our whole duty, are neceſſary to ſupport our faith, after it is generated. While any ſin remains unconquered, while there are any ſecret miſgivings, the idea of God will be ſo uneaſy to the mind, as not to recur frequently; men will ſeek for refuge in vain amuſements; and the falſe hopes of this world will exclude the real ones of another, and make religion appear like a dream. This is the caſe with far the greateſt part of mankind; they *live rather by ſight than faith*; and are not ſufficiently aware, that a *little leaven leavens the whole lump*, and that one favourite purſuit of this world totally eclipſes thoſe glories of the other, that ſight of *the inviſible God*, which the *pure in heart*, like *Moſes*, are favoured with. The ſame partiality of our obedience and devotion is the cauſe, that the writings of the Old and New Teſtaments do not at once convince all, who peruſe them, of their divine authority, and of the conſequent truth of revealed religion. We judge of the frame of men's minds by that of our own, as appears from the theory of aſſociation; and whatever differs in a great degree from our own, puts on the appearance of ſomething romantic and incredible. This is evident in the daily intercourſes of human life. Corrupt and deſigning men put the falſeſt and moſt unnatural conſtructions upon the actions of the bulk of mankind, and often deceive themſelves thereby; and the bulk of mankind are quite at a loſs to conceive and believe the poſſibility of very heroical, generous, pious actions. And thus profane men turn into ridicule paſſages in the ſcriptures, which demand the higheſt admiration and applauſe; and men of inferior degrees of goodneſs, though they do not aſſent to this, are a little ſtaggered at it. But they who *will do the will* of God, will ſoon perceive the *doctrine* of the ſcriptures to be *from him*; they who will preſs forward to the perfection of *Moſes*, *Daniel*, St. *Peter*, or St. *Paul*, will not only acquit them readily of the charge of enthuſiaſm and impoſture, but will alſo ſee and feel experimentally ſuch unqueſtionable criterions of truth, ſuch a reality, in their words and actions, as will diſpel all the miſts of ſcepticiſm and infidelity, with regard either to natural or revealed religion.

It is much to be wiſhed, that theſe things were ſeriouſly weighed, and laid to heart, by thoſe half-pious perſons, who abſtain from groſs ſins, and *ſeek, though they do not ſtrive, to enter in at the ſtrait gate, who are not far from the kingdom of God.* Theſe perſons might, by a little more attention to the word and works of God in a practical way, and *caſting away the ſin that does moſt eaſily beſet them*, not only arrive at that *full aſſurance of faith*, which is our greateſt happineſs in this world, and the earneſt of an eternal crown hereafter, but alſo *let their light ſo ſhine before men, as that they, ſeeing their good works, would glorify their Father, which is in heaven.*

OF THE FEAR OF GOD.

The immediate conſequence of faith in God, in its imperfect ſtate, is fear. And though love does ariſe alſo, yet it is faint and tranſient for a long time, whereas the fear is ſtrong and vivid, and recurs generally with every recollection of the divine attributes. The cauſe of all this is unfolded in theſe papers. For, fear being the offspring of bodily pain, and this being much more acute than bodily pleaſure, the parent of love, it follows that fear muſt, in general, be ſtronger than love in their naſcent ſtate. The auguſt ideas of infinite time and ſpace, of the glories of heaven, and the torments of hell, of the great works of the creation, &c. which accompany the idea of God, farther contribute to agitate the mind, and to carry it within the limits of pain or fear. At the ſame time we ſee, that theſe terrifying ideas, when mixed with thoſe which generate love, and moderated by frequent recurrency, and other means, ſo as to fall back within the limits of pleaſure, muſt greatly increaſe our love, and other pleaſing affections, exerted towards the Deity. We are to inquire therefore, both how the fear of God may moſt effectually be generated, and how it may be converted moſt ſpeedily into love and delight in God. And the anſwer will be, that we muſt make uſe of the means before recommended for the generation and increaſe of faith, viz. the ſtudy of the word and works of God, and a ſincere endeavour to diſcharge the whole of our duty.

That the laſt is neceſſary to keep up the fear of God, may appear, inaſmuch as thoſe who continue to diſobey, muſt, by degrees, fall into inſenſibility and calloſity; the frequent returns of the ideas of guilt and fear make them ſit eaſier upon the mind, at the ſame time that the remaining uneaſineſs keeps theſe ideas, with all their aſſociates, out of view, in a great meaſure, as has been mentioned already.

OF GRATITUDE TOWARDS GOD.

Gratitude or thankfulneſs to God ariſes from the recollection of benefits received, juſt as that to men. And if we could ſee and feel practically and perpetually, that God is the ſole ſpring of all action, our gratitude to God would abſorb all kinds and degrees of it paid to men. Could we alſo look with the eye of faith into futurity, and be convinced really, that *eye hath not ſeen, nor ear heard, neither hath it entered into the heart of man to conceive, what things God has prepared for ſuch as love him,* that *all things work together for their good,* trials and afflictions as much, or more than any thing elſe, that every creature ſhall love, and bleſs, and praiſe God at laſt, and every one partake of the happineſs of all the reſt, whilſt yet we all, who are thus heirs of an exceſs of glory, perfection, and happineſs, are creatures of yeſterday, called forth from nothing by God's almighty word; if, farther, we conſider, that the Son of God became fleſh, took our infirmities and ſorrows, and at laſt died for us, God condeſcending thus to recommend

recommend and evidence his infinite love to us; our hearts could not but overflow with ſuch gratitude, as even to overpower our faith for a while. We ſhould then acknowledge, that all we are, and have, and hope for, are from him; we ſhould praiſe him for all the bleſſings paſt, preſent, and future, which we receive in our own perſons, or in thoſe of our fellow-creatures; and deſire nothing ſo ardently, as to be admitted into his preſence, and the ſociety of thoſe happy beings, who reſt not day and night, ſaying *holy, holy, holy, Lord God Almighty, which was, and is, and is to come.*

OF HOPE AND TRUST IN GOD, AND RESIGNATION TO HIS WILL.

Hope and truſt in God differ only in degree, the laſt being a firmer hope, and, as it were, an aſſurance of the favour of God to ourſelves in particular; and that he will provide for all our wants. Reſignation is the ſame hope and truſt exerted, notwithſtanding that preſent appearances may be contrary thereto: it is the ſubmiſſion of our own wills and judgments to God's, with an entire confidence in his care and goodneſs. Let us endeavour to place this hope, truſt, and reſignation, upon a ſure foundation, laid in the word and works of God.

Firſt, then, The ſcriptures give the ſtrongeſt and plaineſt aſſurances, that all thoſe who love and obey God here, will be admitted to pure, exalted, and eternal happineſs at the expiration of this life. If therefore *our hearts do not condemn us*, we *may have this confidence in him*; we may have an entire hope and truſt in him, as to the moſt weighty of all points, our eternal ſalvation. And though natural reaſon could not have diſcovered this ineſtimable hope to us, though it was not able *to bring life and immortality to light*, Chriſt being the only *ſure and ſteadfaſt anchor* of that hope, which reaches *beyond the veil* of death; yet it readily concurs with all the ſcripture declarations of this kind, and even affords a comfortable probability of itſelf, after we have once been enlightened by revelation.

Secondly, The ſcriptures, the voice of reaſon, and careful obſervation, all concur to aſſure us, that a ſecret providence attends upon the good; protects and bleſſes them in the events of the preſent life, ordinary and extraordinary; delivers them in great trials and afflictions; and diſpoſes every incident and circumſtance in ſuch a manner, as they would wiſh and deſire for themſelves, could they judge aright, and take the whole of things into their view. Now the full perſuaſion of this would be a moſt endearing motive to truſt and confidence in God. For the things of this life, however inconſiderable when compared to thoſe of another, do moſt ſenſibly affect even good men; and, till they can arrive at a due indifference to this world, it is highly requiſite, that they ſhould turn their exceſs of ſenſibility into a motive to gratitude and truſt.

Thirdly, The aſſurance that all our afflictions are the chaſtiſements of our heavenly Father, and equally productive of happineſs with the other events of our lives, as mentioned

tioned in the laſt paragraph, enables us to reſign ourſelves. The higheſt act of this kind is, for the moſt part, in the article of death, when we are ſurrounded with infirmity, pain, and darkneſs, and when all inferior comforts muſt be given up. Now this theopathetic affection of reſignation, though it is in its firſt ſtate painful, and difficult to corrupt nature; yet in its progreſs it becomes eaſy, and at laſt affords the deepeſt peace and ſatisfaction. By reſigning all, we are delivered from every anxiety and diſquietude, and enter upon the next period of our exiſtence, with an impartiality and freedom, that qualifies us to enjoy whatever the order of providence beſtows. And unleſs we were exerciſed with ſome trials and temptations of this kind, unleſs our wills were ſometimes diſappointed, we ſhould at laſt be ſwallowed up by mere wilfulneſs, and purſue every object of deſire with an unconquerable eagerneſs and obſtinacy: we ſhould alſo idolize ourſelves, as the authors of our ſucceſs and bleſſings; or, at the utmoſt, ſhould look no farther than the courſe of nature, and blind unmeaning fate; whereas by learning a ready compliance with the will of God, however unexpected, we become partakers of his happineſs; for his will can never be diſappointed.

Fourthly, Thoſe perſons who believe the goodneſs of God, according to the third of the ſuppoſitions before-mentioned, *i. e.* who believe that he will advance all his creatures to unlimited happineſs ultimately, may much more eaſily reſign themſelves to God, in all reſpects, ſpiritual as well as temporal on that account. But it appears, that very pious perſons have an entire reſignation, without any diſtinct conception or belief of this hypotheſis. They know and feel, as it were, that God is infinitely good, and that *the judge of all the earth muſt do right*; and, in this confidence, they leave the myſteries of his providence, his unſearchable judgments, to be unfolded in his own time, preſerving themſelves from diſquietude by an humble religious ſcepticiſm. But if it ſhould pleaſe God to diſplay the riches of his mercy in the full diſcovery and eſtabliſhment of the doctrine of univerſal reſtoration, in the latter times, which are now approaching, it will become us firſt to receive it with the higheſt gratitude, and then to uſe it as a means of accelerating our progreſs towards the abſolute reſignation of ourſelves, and all our fellow-creatures, into the hands of God.

Fifthly, As the conſiderations contained in the four laſt paragraphs may contribute to beget hope, truſt, and reſignation in us, ſo all the foregoing theopathetic affections, and particularly gratitude, with all the means of obtaining them, conſpire to the ſame purpoſe, as will be eaſily ſeen.

OF THE LOVE OF GOD.

The love of God may be conſidered as the laſt of the theopathetic affections, as before remarked; for they all end in it, and it is the ſum total of them all. In its firſt riſe, it muſt, like all the reſt of them, reſemble the ſympathetic one of the ſame name; and thus it differs from the reſt in *their* firſt riſe, and is, as it were, contrary to fear.

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In its firſt riſe it is often tinctured with fondneſs and familiarity, and leans much towards enthuſiaſm; as, on the other hand, the fear is often at firſt a ſlaviſh ſuperſtitious dread. By degrees the fear and love qualify each other; and, by uniting with the other theopathetic affections, they all together coaleſce into a reverential, humble, filial love, attended with a peace, comfort, and joy, that paſs all belief of thoſe who have not experienced it; ſo that they look upon the diſcourſes and writings of thoſe who have, to be either hypocriſy, or romantic jargon. The book of *Pſalms* affords the ſublimeſt and moſt correct expreſſions of this kind, and can never be too much ſtudied by thoſe who would cheriſh, purify, and perfect in themſelves a devout frame of mind. And this ſingle circumſtance, excluſive of all other conſiderations, appears to me a moſt convincing proof of the divine authority of this book, and conſequently of the reſt of the books of the Old and New Teſtament. But they have all the ſame evidence in their favour, in their reſpective degrees; they are all helps to beget in us the love of God, and teſts whether we have it or no; and he who *meditates day and night in the law of God*, joining thereto the practical contemplation of his works, as preſcribed by the ſcriptures, and the *purification of his hands and heart*, will ſoon arrive at that devout and happy ſtate, which is ſignified by the love of God. I will here add ſome practical conſequences reſulting from what has been advanced concerning the theopathetic affections.

Firſt, then, Though an exceſs of paſſion of every kind, ſuch as is not under the command of the voluntary power, is to be avoided, as dangerous and ſinful; yet we muſt take care to ſerve God, with our affections, as well as our outward actions; and indeed, unleſs we do the firſt, we ſhall not long continue to do the laſt, the internal frame of our minds being the ſource and ſpring, from whence our external actions flow. God, who gives us all our faculties and powers, has a right to all; and it is a ſecret diſloyalty and infidelity, not to pay the tribute of our affections. They are evidently in our power, immediately or mediately; and therefore he who goes to his profeſſion, occupation, or amuſements, with more delight and pleaſure than to his exerciſes of devotion, his reading and meditation upon divine ſubjects, and his prayers and praiſes, whoſe *ſoul is not athirſt for the living God*, and *the water of life*, may aſſuredly conclude, that he is not arrived at the requiſite degree of perfection; that he ſtill hankers after *mammon*, though he may have ſome real deſires, and earneſt reſolutions, with reſpect to God.

Secondly, Though this be true in general, and a truth of the greateſt practical importance; yet there are ſome ſeaſons, in which all the theopathetic affections, and many, in which thoſe of the delightful kind, are languid, and that even in perſons that are far advanced in purity and perfection. Thus the enthuſiaſtic raptures, which often take place in the beginning of a religious courſe, by introducing an oppoſite, ſtate, diſqualify ſome; a *Judaical* rigour and exactitude in long exerciſes, bodily diſorders, &c. others, from feeling God to be their preſent joy and comfort. So that the

the fervours of devotion are by no means in exact proportion to the degree of advancement in piety; we can by no means make them a criterion of our own progreſs, or that of others. But then they are always ſome preſumption; and it is far better, that they ſhould have ſome mixture even of enthuſiaſm, than not take place at all. As to thoſe, who are in the dry and dejected ſtate, the fear of God is, for the moſt part, ſufficiently vivid in them. Let them therefore frequently recollect, that the fear of God is a ſcripture criterion and ſeal of the elect, as well as love. Let them conſider, that this trial muſt be ſubmitted to, as much as any other, till *patience have her perfect work*; that it is more purifying than common trials; that the ſtate of fear is far more ſafe, and a much ſtronger earneſt of ſalvation, than premature and ecſtatic tranſports; and that, if they continue faithful, it will end in love, probably during this life, certainly in another. Laſtly, That no feeble minded perſon may be left without comfort, if there be any one who doubts whether he either loves or fears God, finding nothing but dulneſs, anxiety and ſcrupuloſity, within him, he muſt be referred to his external actions, as the ſureſt criterion of his real intentions, in this confuſed and diſorderly ſtate of the affections; and at the ſame time admoniſhed not to depend upon his external righteouſneſs, which would breed an endleſs ſcrupuloſity, and an endeavour after an uſeleſs exactitude, but to take refuge in the mercy of God through Jeſus Chriſt.

Laſtly, The cultivation of the love of God in ourſelves by the methods here recommended, and all others that ſuit our ſtate and condition, with a prudent caution to avoid enthuſiaſm on one hand, and ſuperſtition on the other, is the principal means for preſerving us from dejection of every kind, and freeing us, if we be fallen into it. Worldly ſorrows muſt by degrees die away, becauſe worldly deſires, their ſources will. And this progreſs will be much accelerated by the impreſſions of a contrary nature, which gratitude, hope, love towards God, will make upon the mind. As to the dejection, which relates to another world, it generally ends, as has been frequently remarked already, in the oppoſite ſtate, being its own remedy and cure; but all direct endeavours after the true and pure love of God muſt aſſiſt. It is much to be wiſhed, that low-ſpirited perſons of all kinds would open themſelves without reſerve to religious friends, and particularly to ſuch as have paſſed through the ſame dark and diſmal path themſelves, and, diſtruſting their judgments, would reſign themſelves for a time to ſome perſon of approved experience and piety. Theſe would be like guardian angels to them; and as our natures are ſo communicative, and ſuſceptible of infection good and bad, they would by degrees infuſe ſomething of their own peaceable, cheerful, and devout ſpirit into them. But all human ſupports and comforts are to be at laſt reſigned; we muſt have no *Comforter, no God, but one*; and happy are they who make haſte towards this central point, in which alone we can *find reſt to our ſouls*.

SCHOLIUM.

SCHOLIUM.

If we conſider the love of the world, the fear of God, and the love of God, in the firſt ratio which they bear to each other, it will appear, that the love of the world is infinitely greater than the fear of God, and the fear infinitely greater than the love; ſo that the fear of God is a middle proportional between the love of the world and the love of God, in the firſt or naſcent ratio of theſe affections. In like manner, if we take their laſt ratio, or that in which the love of the world, and the fear of God, vaniſh into the love of God, the love of the world will be infinitely leſs than the fear of God, and the fear infinitely leſs than the love; ſo that the fear of God will ſtill be a middle proportional between the love of the world and the love of God. Let us ſuppoſe the fear of God to be a middle proportional between the love of the world and the love of God in all the intermediate ſtates of theſe affections, from their firſt riſe in infancy, till their ultimate abſorption and evaneſcence in the love of God, and ſee how this ſuppoſition will tally with experience, and how each affection varies in reſpect of the other two. Call therefore the love of the world W, the fear of God F, and the love of God L. Since then $W : F :: F : L$, $W = \frac{F^2}{L}$. If now F be ſuppoſed to remain the ſame $W :: \frac{1}{L}$, *i. e.* every diminution of the love of the world will increaſe the love of God, and *vice verſa*; ſo that, if the love of the world be nothing, the love of God will be infinite, alſo infinitely greater than the fear, *i. e.* we ſhall be infinitely happy. If, on the contrary, the love of the world be greater than the love of God, the fear will alſo be greater than it, and our religion be chiefly anxiety and ſuperſtition. If, farther, F, ſuppoſed ſtill to remain the ſame, be greater than W, it is our trueſt intereſt to diminiſh W as much as we can, becauſe then the gain in L is far greater than the loſs in W. If L remain the ſame, then $W = F^2$, *i. e.* every increaſe of W will increaſe F alſo, *i. e.* every increaſe of the love of the world will increaſe the fear of God, which therefore, ſince the love is not increaſed by ſuppoſition, muſt incline to a ſuperſtitious dread: as, on the contrary, if W vaniſhes, F muſt vaniſh alſo, *i. e.* the love of the world and fear being both annihilated, we ſhall receive pure happineſs, of a finite degree, from the love of God. If W remain the ſame, then $F^2 :: L$, *i. e.* every acceſſion made to the fear of God will be the cauſe of a greater acceſſion to the love, and every acceſſion to the love the cauſe of only a leſs acceſſion to the fear, *i. e.* we ſhall be gainers upon the whole by all motives either to the fear or love of God, loſers by all contrary motives. For if F be ſuppoſed even infinite, L will be infinito-infinite, *i. e.* will abſorb it infinitely; and, if F be infiniteſimal, L will be infinito-infiniteſimal, *i. e.* we ſhall become mere ſelfiſh worldlings which is the caſe with thoſe practical atheiſts, who ſucceed in their endeavours to put God, and a future ſtate, out of their thoughts, that they may give themſelves up to this world. W now occupies the place of L,

and extinguiſhes both F and it, *i. e.* ſelf and the world are their God. Upon the whole, it follows from this ſpeculation concerning the quantities W, F, and L, that W ought to be diminiſhed, and F and L to be increaſed, as much as poſſible, that ſo W may be indefinitely leſs than F, and F indefinitely leſs than L, *i. e.* we ourſelves indefinitely happy in the love of God, by the previous annihilation of ſelf and the world. And it may not perhaps be quite unuſeful to have repreſented this moſt important of all concluſions, with the ſteps that lead to it, in this new and compendious light.

PROP. CLXXII.

To deduce practical Rules concerning the Manner of expreſſing the theopathetic Affections by Prayer, and other religious Exerciſes.

THERE cannot be a more fatal deluſion, than to ſuppoſe, that religion is nothing but a divine philoſophy in the ſoul; and that the foregoing theopathetic affections may exiſt and flouriſh there, though they be not cultivated by devout exerciſes and expreſſions. Experience, and many plain obvious reaſons, ſhew the falſehood and miſchievous tendency of this notion; and the theory of theſe papers may furniſh us with other reaſons to the ſame purpoſe, of a deeper and more ſubtle nature. It follows from this theory, that no internal diſpoſitions can remain long in the mind, unleſs they be perpetually nouriſhed by proper aſſociations, *i. e.* by ſome external acts. This therefore may be conſidered as a ſtrong argument for frequent prayer.

But, Secondly, Though God be in himſelf infinite in power, knowledge, goodneſs, and happineſs, *i. e.* acquainted with all our wants, ready and able to ſupply them, and incapable of change through our entreaties and importunities; yet, as he repreſents himſelf to us both in his word and works in the relation of a father and governor, our aſſociated nature compels us, as it were, to apply to him in the ſame way as we do to earthly fathers and governors; and, by thus compelling us, becomes a reaſon for ſo doing. If God's incomprehenſible perfection be ſuppoſed to exclude prayer, it will equally exclude all thoughts and diſcourſes concerning him; for theſe are all equally ſhort and unworthy of him; which is direct atheiſm.

Thirdly, Though the hypotheſis of mechaniſm may ſeem at firſt ſight to make prayer ſuperfluous and uſeleſs; yet, upon farther conſideration, it will be found quite otherwiſe. For if all things be conducted mechanically, *i. e.* by means; then prayer may be the means of procuring what we want. Our ignorance of the manner in which things operate, is not the leaſt evidence againſt their having a real operation. If all be conducted mechanically, ſome means muſt be made uſe of for procuring our wants. The analogy of all other things intimates, that theſe means muſt proceed in part from man. The analogy taken from the relations of father and governor ſuggeſts prayer.

It follows therefore, according to the mechanical hypotheſis, that prayer is one of the principal means, whereby we may obtain our deſires.

Fourthly, If all theſe reaſons were ſet aſide, the preſſing nature of ſome of our wants would extort prayers from us, and therefore juſtify them.

Fifthly, In like manner, the theopathetic affections, if they be ſufficiently ſtrong, will break forth into prayers and praiſes, as in the authors of the *Pſalms*, and other devout perſons.

Laſtly, The ſcriptures direct and command us to pray, *to pray always, in every thing to give thanks*; and ſupport the foregoing and ſuch like reaſons for prayer and praiſe. And this removes all doubt and ſcruple, if any ſhould remain from the infinite nature and majeſty of God. We may be ſatisfied from the ſcriptures, that we have the privilege to pray, to expoſe all our wants, deſires, joys, and griefs, to our Creator; and that he will hear us, and help us.

As to the time, manner, and requiſites of prayer, we may make the following obſervations.

Firſt, That words are of great uſe in the moſt private prayer, becauſe of the aſſociations transferred upon them, and which therefore they excite in the mind. But then, as there are internal ſentiments and combinations of theſe, to which no words can correſpond, we muſt not confine the noble privilege of prayer and praiſe to our languages, which are the offspring of the confuſion at *Babel*. There are therefore proper ſeaſons and occaſions for mental prayer, for the tendency and aſpiration of the heart to God without words, as well as for vocal prayer. And indeed all private vocal prayer ſeems to admit of and require mental prayer, at ſhort intervals, in order to fix our attention, and exalt our affections, by giving ſcope to the ſecondarily automatic workings of a devout heart.

Secondly, Forms of prayer, compoſed by perſons of a devout ſpirit, are of uſe to all at certain times, for aſſiſting the invention, and exciting fervency; and in the beginning of a religious courſe they ſeem to be neceſſary, as they certainly are for children. But it would be a great hindrance to the growth and perfection of our devotion, always to keep to forms. The heart of every particular perſon alone knows its own bitterneſs, its deſires, guilt, fears, hopes, and joys; and it will be impoſſible to open ourſelves without reſerve, and with a filial love and confidence in God, unleſs we do it of ourſelves, in ſuch words as the then preſent ſtate of mind, when under a vigorous ſenſe of the divine preſence, ſhall ſuggeſt.

Thirdly, A regularity as to the times of private devotion helps to keep perſons ſteady in a religious courſe, and to call them off again and again from purſuing and ſetting their hearts upon the vanities of the world. And we may affirm in particular, that the morning and evening ſacrifice of private prayer and praiſe ought never to be diſpenſed with, in ordinary caſes, not even by perſons far advanced in the ways of piety. It ſeems alſo very conſonant to the true ſpirit of devotion, to have ſet hours of

prayer in the courſe of the day, as memorials and means of begetting this ſpirit, which, however, cannot be obſerved by the bulk of the world with exactneſs. Laſtly, It will be of great uſe to accuſtom ourſelves to certain ejaculations upon the various particular occaſions, that occur in the daily courſe of each perſon's buſineſs and profeſſion. It is true indeed, that all theſe rules are of the nature of *Judaical* rites and ceremonies; but then let it be conſidered, that even in chriſtian countries every man muſt be a *Jew* in effect, before he can arrive at *chriſtian* liberty, and be able to worſhip God *in ſpirit, and in truth*, and indeed in order to arrive thither. Times, forms, and rules of devotion, are ſchool-maſters that ſerve to bring us to Chriſt. As for thoſe perſons who are ſo far advanced, as to walk with God continually, who ſanctify the minuteſt actions by a perpetual dedication of them to God, I do not preſume to inſtruct them. *Their anointing teaches them all things.*

Fourthly, The matter of our prayers muſt be different, according to the ſtate that we are in; for in prayer we ought always to lay our real caſe, whatever it be, before God. Confeſſion of ſins, and petition for graces, are the moſt uſeful and requiſite for young penitents, and muſt always have a conſiderable ſhare in thoſe who are farther advanced. But when the heart overflows with joy and gratitude to God, and tender love to others, which is more frequently the caſe with thoſe, who have *kept* their *firſt love* for ſome time, it is eaſy to ſee, that praiſe and interceſſion muſt be moſt natural and ſuitable. Temporal wants ought not to be forgotten. We are to acknowledge God in every thing; conſider him as our father, and only friend, upon all occaſions; place no confidence in our own wiſdom or ſtrength, or in the courſe of nature; have moderate deſires, and be ready to give up even theſe. Now prayer, with expreſs acts of reſignation, in reſpect of external things, has a tendency to beget in us ſuch diſpoſitions. However, I do not extend this to ſuch perſons as are reſigned to God in all things, temporal and ſpiritual, for themſelves as well as for others, who deſiring nothing but that the will of God may be done, ſee alſo that it is done, acquieſce and rejoice in it.

Fifthly, Prayer muſt always be accompanied by faith, *i. e.* we muſt not only look up to God, as our ſole refuge, but as an effectual one. He that believes the exiſtence and attributes of God really and practically, will have this entire confidence, ſo as to be aſſured that the thing deſired of God will be granted, either preciſely as deſired, or in ſome way more ſuitable to his circumſtances; an act of reſignation being here joined to one of faith. How far our Saviour's directions, concerning faith in prayer, are an encouragement and command to expect the preciſe thing deſired, is very doubtful to me. However, we may certainly learn from his example, that reſignation is a neceſſary requiſite in prayer; that we ought always to ſay, *Nevertheleſs not my will, but thine be done.*

Sixthly, Public prayer is a neceſſary duty, as well as private. By this we publicly profeſs our obedience to God through Chriſt; we excite and are excited by others to fervency in devotion, and to chriſtian benevolence; and we have a claim to the promiſe

miſe of Chriſt to thoſe who are aſſembled together in his name. The chriſtian religion has been kept alive, as one may ſay, during the great corruption and apoſtaſy, by the public worſhip of God in churches; and it is probable, that religious aſſemblies will be much more frequent than they now are, whenever it ſhall pleaſe God to put it into the hearts of chriſtians to proceed to the general converſion of all nations. We ought therefore to prepare ourſelves for, and haſten unto, this glorious time, as much as poſſible, by joining together in prayers for this purpoſe; and *ſo much the more, as we ſee the day approaching.*

Laſtly, Family prayer, which is ſomething between the public prayers of each church, and the private ones of each individual, muſt be neceſſary, ſince theſe are. The ſame reaſons are eaſily applied. And I believe it may be laid down as a certain fact, that no maſter or miſtreſs of a family can have a true concern for religion, or be a child of God, who does not take care to worſhip God by family prayer. Let the obſervation of the fact determine.

SECT. VIII.

OF THE REGARD DUE TO THE PLEASURES AND PAINS OF THE MORAL SENSE IN FORMING THE RULE OF LIFE.

PROP. CLXXIII.

The moral Senſe ought to be made the immediate Guide of our Actions on all ſudden Emergencies; and therefore its Pleaſures may be conſidered as making Part of our primary Purſuit.

In deducing rules for ſocial conduct above, I laid down the moral ſenſe as one, which ought to have great influence in the moſt explicit and deliberate actions. Now this is, in ſome meaſure, ſufficient to prove, that its pleaſures make part of our primary purſuit. I here propoſe to ſhew, that the moral ſenſe ought not only to have ſome, but the ſole influence, on emergent occaſions; and this will be a farther recommendation of its pleaſures.

That the moral ſenſe is ſuch an immediate guide, will appear for the following reaſons.

Firſt, Becauſe it offers itſelf in the various occurrencies of life, at the ſame time producing its credentials. For it warns us beforehand, and calls us to account afterwards; it condemns or acquits; it rewards by the pleaſures of ſelf-approbation, or puniſhes

puniſhes by the pains of ſelf-condemnation. It appears therefore with the authority of a judge, and alſo of one who knows the hearts; and, by conſequence, it claims to be God's vicegerent, and the forerunner of the ſentence which we may hereafter expect from him.

Secondly, The moral ſenſe is generated chiefly by piety, benevolence, and rational ſelf-intereſt; all which are explicit guides of life in deliberate actions. Since therefore theſe are excluded on ſudden occaſions, through the want of time to weigh and determine, it ſeems highly reaſonable to admit the moral ſenſe, which is their offspring, and whoſe dictates are immediate, for their ſubſtitute.

Thirdly, The greatneſs, the permanency, and the calm nature of the pleaſures of the moral ſenſe, with the horrors, and conſtant recurrency, of the ſenſe of guilt, are additional arguments to ſhew, that theſe pleaſures and pains were intended for the guides of life, and the pleaſures for a primary purſuit.

Fourthly, The mechanical generation of the pleaſures and pains of the moral ſenſe may by ſome be thought an objection to the reaſoning here uſed; but it will appear otherwiſe, upon due conſideration, For all the things which have evident final cauſes, are plainly brought about by mechanical means; ſo that we may argue either way, viz. either from ſeeing the mechanical means, to the exiſtence of a final cauſe, not yet diſcovered; or from the exiſtence of a final cauſe, to that of the mechanical means, not yet diſcovered. Thus a perſon who ſhould take notice, that milk always appeared in the breaſts of the dam at the proper ſeaſon for the young animal, might conclude that this was effected mechanically; or, if he firſt ſaw, that milk muſt be brought mechanically into the breaſts, ſoon after the birth of the young, he might conclude, that this milk would be of ſome uſe; and, from a very little farther recollection, might perceive that it was for the nouriſhment of the new-born animal. In like manner, if any one ſees, that a power, like that of conſcience, muſt be generated in the human mind, from the frame of it, compared with the impreſſions made upon it by external objects, he may be aſſured, that this power muſt have ſome uſe; and a very little reflection upon the divine attributes, and the circumſtances of mankind, will ſhew that its peculiar uſe muſt be that of a guide and governor.

If we could ſuppoſe the moral ſenſe to be either an inſtinct impreſſed by God, or the neceſſary reſult of the eternal reaſons and relations of things, independent of aſſociation, it ought ſtill to be conſidered as a guide of life. For ſince the favourers of each of theſe ſuppoſitions maintain, that the moral ſenſe is entirely coincident with the precepts of benevolence and piety; it muſt, according to them, be made their ſubſtitute upon emergent occaſions.

PROP. CLXXIV.

To deduce practical Rules for the Regulation and Improvement of the moral Senſe.

THERE are three things principally neceſſary in the conduct of the moral ſenſe. Firſt, That it extend to all the actions of moment, which occur in the intercourſes of human life; and be a ready monitor to us on ſuch occaſions. Secondly, That it ſhould not deſcend to minute and trifling particulars; for then it would check benevolence, and turn the love of God into a ſuperſtitious fear. And, Thirdly, That its informations be in all caſes agreeable to piety and benevolence, whoſe ſubſtitute it is.

Now it will be eaſily ſeen, that, for the right conduct of our moral ſenſe in all theſe particulars, it will be neceſſary for us to be much employed in the practical ſtudy of the ſcriptures, and of the writings of good men of all denominations, in obſerving the living examples of ſuch, in calling ourſelves to account frequently, in prayer, and other exerciſes of devotion, in endeavouring to convert all the ſympathetic and theopathetic affections into the love of God, in aiming at a truly catholic and charitable ſpirit, and in walking faithfully, according to the dictates of benevolence, piety, and the moral ſenſe, ſuch as they are at preſent. For *to him that hath ſhall be given, and he ſhall have abundance.* Some of theſe directions are more particularly ſuited to correct one defect in the moral ſenſe, ſome another; but they will all conſpire in purifying and perfecting it.

General COROLLARIES *to the laſt* SEVEN SECTIONS.

COR. 1. We may now, by reviewing the ſeven laſt ſections, judge how much the chriſtian morality is ſuperior to the pagan, in ſublimity and purity. The pagan morality was comprehended under the four cardinal virtues of prudence, juſtice, fortitude, and temperance; and theſe were ſo explained and underſtood by the pagans, as to omit many neceſſary chriſtian virtues, and allow, or even recommend, ſome great enormities. I will claſs a few particulars of this kind under the reſpective heads of ſenſation, imagination, ambition, ſelf-intereſt, ſympathy, theopathy, and the moral ſenſe.

The pagan virtue of temperance prohibited all groſs exceſſes in eating and drinking, and many acts of lewdneſs. But it fell far ſhort of the chriſtian precepts, in regard to the external actions; and ſeems no ways to have extended to the regulation of the thoughts.

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The pagan fortitude enjoined great patience and perſeverance in difficulties, pains, and dangers. But it was, in part, founded in pride; and ſo was oppoſite to the chriſtian fortitude, whoſe ſtrength lies in its weakneſs, in a diffidence in ourſelves, and confidence in God. And how much the chriſtian was ſuperior in degree, as well as kind, may appear from the examples of the martyrs and confeſſors in the primitive times, who were of all ranks, profeſſions, ages, and ſexes, and of innumerable private perſons in the preſent, as well as all paſt ages of the church, who are able to *rejoice in tribulation*, and to do all things, through Chriſt that ſtrengtheneth them. They do not make a ſhew of themſelves to the world; that would be oſtentation, and vain-glory: but thoſe who deſire to be animated by, and to imitate, ſuch living examples, may find them in every chriſtian country in the world.

As to the pleaſures of imagination, there ſeems to have been no reſtraint laid upon them by the pagan morality. Curioſity, and the ſtudy of the arts and ſciences for their own ſakes, were even recommended.

Ambition was, in like manner, eſteemed virtuous; and many kinds and degrees of humility were treated with reproach and contempt.

Groſs ſelf-intereſt was allowed in a much greater degree by the pagans, than it is amongſt chriſtians. The pagans ſcarce knew what refined ſelf-intereſt was; and they did not at all apprehend, that any objection lay againſt rational ſelf-intereſt, or that a purer motive to action was neceſſary.

Their benevolence was chiefly a love of relations, benefactors, and their country. They fell far ſhort of univerſal unlimited benevolence, equal to ſelf-love; and they allowed, and even recommended, taking vengeance on enemies, as an heroic, noble action.

As to the theopathetic affections of faith, fear, gratitude, hope, truſt, reſignation, and love, with the expreſſions of theſe in prayer and praiſe, they knew nothing of them in general. Polytheiſm, and impure notions of their deities, had quite depraved and ſtarved all their theopathetic affections. They were deſtitute of love, and their fear was ſuperſtition.

Laſtly, The conſequence of all this muſt be, and accordingly was, a proportional imperfection in the moral ſenſe. It was deficient in moſt things, erroneous in many, and needleſsly ſcrupulous in ſome. It occupied the place of the deity; for the beſt amongſt the pagans idolized the innate ſenſe of *honeſty*, and the independent power of the mind, the *ſenſus honeſti*, and the τὸ ἐφ' ἡμῖν.

I do not deny but that ſome heathen moraliſts may now and then have expreſſed themſelves in a manner ſuperior to what I have here deſcribed. But I ſpeak of the general tenor of their writings, and deſire that may be compared with the general tenor of the ſcriptures, of the fathers, and of the chriſtian divines of all ages.

Cor. 2. By a like review of the ſeven laſt ſections, we may diſcern more clearly and fully the relative nature of the virtues and vices, which has been already taken notice

notice of; and thus both learn to be more candid and charitable in our judgments on the actions of others, and more earneſt and unwearied after perfection in ourſelves.

Cor. 3. Since it now appears fully, that the pleaſures and pains of the four firſt claſſes are to be ſubjected to thoſe of the three laſt, *i. e.* the pleaſures of thoſe foregone, and the pains accepted; whereas the pleaſures of theſe are to be choſen, and the pains avoided; I will here give, in one view, ſome principal motives to engage us thus to regulate our affections and actions.

Firſt, then, The great compoſure and peace of mind, which thoſe perſons enjoy, who make benevolence, piety, and the moral ſenſe, the rule of their lives, is a ſtrong inducement to us to imitate their example. As we deſire to learn all other arts from thoſe who practiſe them in the greateſt perfection, ſo ought we the art of living. The perſons in whom this peace is moſt obſervable, were the authors of the books of the Old and New Teſtaments; and theſe books may be diſtinguiſhed from all other books by this remarkable circumſtance, that the authors appear to have been quite free from that diſſatisfaction, doubt, care, and fear, which are ſo obvious in the diſcourſes and writings of other perſons. However, the ſame thing appears, in a leſs degree, in the diſcourſes of all good men, even heathens; as in the diſcourſes of *Socrates* preſerved by *Plato* and *Xenophon*; and may be obſerved in the conduct and behaviour of all ſuch, by thoſe who are converſant with them. Eminently pious and benevolent perſons ſeem to be in poſſeſſion of ſome great ſecret, ſome *catholicon*, or philoſopher's ſtone. They paſs through life, unhurt, as to the peace of their minds, by the evils of it; and find abundant matter for praiſe and thankſgiving to God in it. All which appears to be owing to their being guided by the true principle of action.

Secondly, Death is certain, and neceſſarily attended with many terrifying aſſociations; and a future ſtate muſt, even upon the ſlighteſt preſumption of its reality, be a matter of the greateſt concern to all thinking perſons. Now the frequent recurrency of theſe fears and anxieties muſt imbitter all guilty pleaſures, and even the more innocent trifling amuſements; which, though not glaringly oppoſite to duty, are yet beſides it, and foreign to it. And thus men live in bondage all their lives through the fear of death; more ſo than they are aware of themſelves (for men often neglect the fair examination of themſelves, ſo much as not to know their real ſtate, though obvious enough upon a due inquiry); and ſtill much more ſo, than they own and expreſs to others. But nothing can deliver men from this great evil, beſides entire rectitude of heart. While there is a conſciouſneſs of any wilful failure, of any unfairneſs, of prevarication with God, or a deſire and deſign to deceive one's ſelf, the terrors of religion rage with greater fury than in a ſtate of utter negligence, and diſregard to duty. A man cannot reſt, while he is double-minded, while he ſtrives and hopes to ſerve God and *mammon* together; but muſt either go forward in order to obtain true laſting peace, or backward to infatuate and ſtupefy himſelf. And this helps us to account for the foregoing obſervation on the behaviour of truly good men.

Thirdly, It appears from the very frame of our natures, that we are not qualified for any great degrees of happineſs here, nor for an uninterrupted continuance of any degree, nor for the frequent returns of any particular pleaſure, bodily or mental. From all which it will follow, that a general hope, mixed with the cares, fears, and ſorrows of compaſſion and contrition, is the only pleaſure, that is attainable, laſting, or ſuitable to our preſent circumſtances.

Fourthly, Beſides the fears relating to death, and a future ſtate, all perſons who ſerve the world, muſt have very great ones in reſpect of the things of the world. A man muſt be *crucified to the world*, before his heart can be at eaſe concerning its pleaſures, honours, and profits. And as our pains are, in general, more exquiſite than our pleaſures; ſo is fear, worldly fear, the offſpring of the firſt, greater in degree, than worldly hope, the offſpring of the laſt; and, if it recurs often, will overbalance it; and muſt make a great deduction, upon all ſuppoſitions. Now devotion to God, though it does leſſen the hopes of this world, as well as the fears; yet it ſeems to leſſen the fears in a much quicker ratio; however, it certainly takes off their edge, and leaves ſo much hope and pleaſure, as to be a foundation for the duty of thankfulneſs to God.

Fifthly, An upright heart is neceſſary to our having a real influencing ſenſe and conviction of the divine amiableneſs and benevolence, and, conſequently, to our peace and comfort. When any dread, or ſlaviſh fear, attends the conception of the divine nature, a man can never think himſelf ſafe; but will always have anxieties and miſgivings. And our ideas of God muſt always be thus tainted with ſuperſtition, whatever our theory be, if our hearts be not right before him. We ſhall weakly and wickedly ſuppoſe and fear, that he *is ſuch a one as we ourſelves are*, whatever declarations we make, whatever demonſtrations we poſſeſs, to the contrary. And as this cannot but caſt a gloom upon the whole courſe of nature to the wicked, ſo the contrary perſuaſion is the principal ſource of joy and comfort to the good. They do in earneſt believe God to be their friend and father; they love him with a ſincere, though imperfect love; and are eaſily led, from the conſciouſneſs and inward feeling of this, to conſider him as pure and infinite love. And all theſe four laſt obſervations, put together, but eſpecially that of this paragraph, account for the facts mentioned in the firſt.

SECT.

SECT. IX.

OF THE RULE OF FAITH.

PROP. CLXXV.

To inquire what Faith in natural and revealed Religion, or in the particular Tenets of Chriſtian Churches, is neceſſary for the Purification and Perfection of our Natures.

HAVING now ſhewn, that benevolence, piety, and the moral ſenſe, are to be the guides of life, and the compaſs by which we are to ſteer our courſe through the difficulties and dangers of this mixed, imperfect ſtate, it remains that we inquire, whether there be any rule of faith, reſulting or diſtinct from the foregoing rule of life, that is neceſſary to our preſent duty, or future ſalvation.

Firſt, then, Since piety is part of the foregoing rule of life, it is evident, that no one can comply with this rule, unleſs he be a ſincere deiſt at leaſt, *i. e.* unleſs he believe the exiſtence and attributes of God, his providence, a future ſtate, and the rewards and puniſhments of it.

Secondly, The evidence for the chriſtian religion ſeems to be ſo clear and ſtrong in all chriſtian countries, and that with reſpect to all ranks and conditions of men, that no perſon, who is previouſly qualified by benevolence, piety, and the moral ſenſe, in the manner deſcribed in the ſeven laſt ſections, can refuſe his aſſent to it. This I take to be a plain matter of obſervation, ſupported by the univerſal teſtimony of thoſe perſons, that attend to it; meaning by the chriſtian religion, the belief of the divine miſſion of *Moſes* and the prophets, of Chriſt and his apoſtles, or the truth of the ſcriptures. Whoever therefore conducts himſelf by the foregoing rule, muſt believe revealed religion, as well as natural, if born in a chriſtian country. All unbelievers, where there is ſo much evidence, I had almoſt ſaid all doubters, ſeem to be culpable in a very high degree.

Thirdly, As faith in Chriſt is the reſult of a right diſpoſition of mind in chriſtian countries; ſo is this right diſpoſition, in its turn, the reſult of believing in Chriſt; and they increaſe one another reciprocally without limits. And though ſome perſons in the heathen world were conducted to great degrees of benevolence, and uprightneſs of mind, and even to ſome degrees of piety; yet were theſe perſons exceedingly rare, and the degrees far inferior to what is ordinarily to be found in chriſtian countries. This

therefore is a ſtrong proof of the neceſſity of faith in revealed religion. All things elſe being alike, the perſon who believes in Chriſt will become ſuperior to him who does not, in proportion to the vigour of his faith. Which is alſo a plain and cogent reaſon, why thoſe, that are already chriſtians, ſhould labour to the utmoſt of their abilities in converting the barbarous nations, even though their preſent ignorance of revealed religion be excuſable in them. But there is far more reaſon to alarm and awaken, if poſſible, thoſe who diſbelieve in the midſt of light and evidence, *the loſt ſheep of the houſe of Iſrael*; ſince they not only want theſe motives and aſſiſtances to perfection, but are guilty of great prevarication and unfairneſs with themſelves, and ſhut their eyes againſt *the light, becauſe their deeds are evil.* If any unbeliever thinks this cenſure too ſevere, let him examine his own heart. Is he previouſly qualified by love to God, and to all the world, by a ſincere regard for, and obſervance of, natural religion? Is he chaſte, temperate, meek, humble, juſt, and charitable? Does he delight in God, in contemplating his providence, praying to him, and praiſing him? Does he believe a future ſtate, and expect it with hope and comfort? Is he not ſo fond of the praiſe of men, or ſo fearful of cenſure and ridicule, as to be aſhamed to own Chriſt? If the chriſtian religion be true, it muſt be of great importance; and, if of great importance, it is a duty of natural religion to inquire into it. The obligation therefore to examine ſeriouſly ſubſiſts in ſome degree, as long as there is any evidence for, any doubt of, the truth of revelation. For, if true, it muſt be of importance, whether we ſee that importance or not. He who determines, that it is of no importance, determines at once, that it is falſe. But it is too evident to all impartial obſervers, that thoſe who diſbelieve, or affect to diſbelieve, have not made a ſerious accurate inquiry; ſuch a one as they would make about a worldly concern of moment; but content themſelves, and endeavour to perplex others, with general objections, mixed, for the moſt part, with ridicule and raillery, things that are manifeſt hinderances in the ſearch after truth. However, this may be perhaps, too ſevere a cenſure, in reſpect of ſome; nay, we ought not to condemn any, but to conſider, that *to their own maſter they ſtand or fall.*

Fourthly, A nominal, or even a real, but merely hiſtorical and ſpeculative faith, is quite inſufficient, and falls infinitely ſhort of that which the foregoing rule of duty requires. And yet it is of ſome probable uſe to be reckoned among the number of believers, though a man be, for the preſent, inattentive; becauſe ſuch a one lies more in the way of conviction and influence; and is free from that great objection and difficulty to human nature, a reluctance to change even a nominal opinion. As to the perſon, who has a real, hiſtorical, ſpeculative faith, *i. e.* who ſees that the Old and New Teſtaments have the ſame and in many reſpects greater evidences for their truth and genuineneſs, than other books univerſally allowed, who is ready to acknowledge this, and to give reaſons for it of the ſame kind with thoſe that are admitted in ſimilar caſes, he poſſeſſes one of the principal requiſites for generating the true, practical, internal faith, *that overcomes the world*; and if he be not withheld by pride and ſelf-conceit,

conceit, ſo as to reſt in this hiſtorical faith, as ſufficient of itſelf, will make much quicker advances, *cæteris paribus*, towards the true living faith, than a perſon deſtitute of the hiſtorical one. For the true living faith is that vivid ſenſe and perception of God, our Saviour, a future ſtate, and the other related ideas, that make them appear at once as realities, and become powerful and inſtantaneous motives to action. But it is very evident, that an hiſtorical faith muſt, by impreſſing and uniting theſe ideas during the time that they are conſidered, and reflected upon, produce the effects, the reality, above-deſcribed, in the ſame manner as the intereſted love of God does at laſt generate the pure diſintereſted love. And the calamities and ſorrows of human life will be much more likely to ſtrike him who is poſſeſſed of an hiſtorical faith, than a perſon ignorant of the ſubject.

It muſt, however, be acknowledged, that the real practical faith is by no means in exact proportion to the hiſtorical. Perſons of good diſpoſitions, of humble minds, who *pray without ceaſing*, who have been much afflicted, &c. have impreſſions of the religious kind excited in them with more vigour and facility than others. Yet ſtill no man can have the practical faith without ſome degree of the hiſtorical; and thoſe who have little of the hiſtorical are liable to be ſhaken, to *be turned about by every wind of doctrine*, and to be carried into extravagancies by the zeal without knowledge. *What God hath joined together, let no man put aſunder.* It is the duty of every man, whether he have the practical faith or not, to inquire, to read the ſcriptures, and to meditate thereon; the neceſſary conſequence of which is an increaſe of the hiſtorical faith. It is alſo the duty of every chriſtian to give a reaſon for his faith, to preach the goſpel (for true chriſtians are a nation of prieſts in this ſenſe); which cannot be done without ſome knowledge of the hiſtorical evidences. Admitting therefore, that mere internal faith (if ſuch a thing be poſſible) did ſuffice to all other purpoſes, it will, however, be defective in this one moſt neceſſary duty of the chriſtian life. Though a mere good example will do much good, ye the ſame good example, accompanied with knowledge, and a rational faith, will do more.

Fifthly, It ſeems entirely uſeleſs to all good purpoſes, to the promotion of piety and benevolence, in the preſent ſtate of things, to form any creeds, articles, or ſyſtems of faith, and to require an aſſent to theſe in words or writing. Men are to be influenced, even in reſpect of the principal doctrines of God's providence, a future ſtate, and the truth of the ſcriptures, by rational methods only, not by compulſion. This ſeems acknowledged on all hands. Why then ſhould harſher methods be uſed in things of confeſſedly leſs importance? It is true, that magiſtrates have a power from God to inflict puniſhment upon ſuch as diſobey, and to confine the natural liberty of acting within certain bounds, for the common good of their ſubjects. But all this is of a nature very foreign to the pretences for confining opinions by diſcouragements and puniſhments.

Thoſe who believe neither natural nor revealed religion practically, will be held by no reſtraints; they will appear to conſent to any thing, juſt as their intereſt leads them.

And

And this is the caſe of a great part of the ſubſcribers in all chriſtian communities. They have a mere nominal faith only, at the time of ſubſcribing, not even a ſpeculative or hiſtorical one: or if they have any degree of ſerioufneſs, and good impreſſions, they muſt do proportional violence to theſe by performing a religious act out of a mere intereſted view.

If the perſon be an earneſt believer of naural religion, but an unbeliever in reſpect of revealed (to ſuppoſe this poſſible for argument's ſake), he will not attempt any office in the chriſtian miniſtry. However, he ought not to be deprived of *civil* privileges, whilſt ſo many wicked nominal chriſtians are ſuffered to enjoy them.

Suppoſe the perſon required to ſubſcribe to be a ſpeculative hiſtorical believer, why ſhould his future inquiries be confined? How can he inquire honeſtly, if they be? How can a perſon be properly qualified to ſtudy the word of God, and to ſearch out its meaning, who finds himſelf previouſly confined to interpret it in a particular manner? If the ſubject matter of the article be of great importance to be underſtood and believed, one may preſume, that it is plain, and needs no article; if of ſmall importance, why ſhould it be made a teſt, or inſiſted upon? If it be a difficult, abſtruſe point, no one upon earth has authority to make an article concerning it. We are all brethren; there is no father, no maſter, amongſt us; we are helpers of, not lords over, each other's faith. If we judge from other branches of learning, as natural philoſophy, or phyſic, we ſhall there find, that the pure evidence of the things themſelves is ſufficient to overcome all oppoſition, after a due time. The doctrines of gravitation, of the different refrangibility of the rays of light, of the circulation of the blood, &c. can never be believed to any uſeful practical purpoſe, till they be examined and underſtood; and thoſe, who now believe them, affirm, that this is all that is neceſſary for their univerſal reception. If they ſhould be miſtaken in this, free examination would be ſo much the more requiſite.

The apoſtles' creed is ſo plain and clear, except in the three articles concerning the deſcent of Chriſt into hell, the holy catholic church, and the communion of ſaints, that no one who believes the truth of the ſcriptures, can heſitate about it; not even how to interpret the three forementioned articles, in a ſenſe agreeable to the ſcriptures. It is quite uſeleſs therefore to require an aſſent even to theſe articles. As to the metaphyſical ſubtleties, which appear in the ſubſequent creeds, they can at beſt be only human interpretations of ſcripture words; and therefore can have no authority. Words refer to words, and to grammatical and logical analogies, in an endleſs manner, in theſe things; and all the real foundation which we have is in the words of ſcripture, and of the moſt ancient writers, conſidered as helps, not authorities. It is ſufficient therefore, that a man take the ſcriptures for his guide, and apply himſelf to them with an honeſt heart, and humble and earneſt prayer; which things have no connection with forms and ſubſcriptions.

Nay,

Nay, it ſeems needleſs, or enſnaring to ſubſcribe even to the ſcriptures themſelves. If to any particular canon, copy, &c. enſnaring, becauſe of the many real doubts in theſe things. If not, it is quite ſuperfluous from the latitude allowed. Yet ſtill it appears to me inconteſtable, that no careful impartial inquirer can doubt of the great truths of the ſcriptures, ſuch as the miraculous birth, life, death, reſurrection and aſcenſion of Chriſt, &c. or of the practical conſequences thence ariſing; and ſurely it cannot be neceſſarily requiſite, that a man ſhould believe more than theſe.

For, Laſtly, Let us ſuppoſe the perſon required to aſſent, or ſubſcribe, to be a real earneſt believer. It can ſcarce be ſuppoſed, that ſuch a perſon ſhould aſſent to any ſet of articles, ſo as honeſtly to affirm, that he would chooſe to expreſs his own ſenſe of the ſcripture language in theſe words. To ſtrain either the ſcriptures, or the articles, muſt be a very ungrateful taſk to an ingenuous man; and perhaps there may be ſo wide a difference in ſome inſtances in his opinion, that no ſtraining can bring them together. And thus ſome of the moſt earneſt believers are excluded from the chriſtian miniſtry, and from certain common privileges of ſociety, by a method, which ſuffers nominal wicked chriſtians to paſs without difficulty.

If it be objected, that, unleſs preachers ſubſcribe, they may teach different doctrines; I anſwer, that they do this, though they do ſubſcribe; and that in the moſt important practical points. If the ſcriptures cannot yet produce a true unity of opinion on account of our preſent ignorance, and the weakneſs and wickedneſs of our natures, how ſhould articles do this? Men can put as different ſenſes upon articles, as upon texts, and ſo diſpute without end. Which evidently appears to have been the caſe in the primitive church. Every deciſion, as ſoon as ſettled, became the ſource of a new diviſion between perſons, who yet ſtill agreed to the foregoing deciſion in words; till at laſt the whole efficacy and ſpirit of chriſtianity, was loſt in mere verbal diſputes. But the beſt anſwer is, that preachers ought entirely to confine themſelves to practical ſubjects, the deſcriptions of the virtues and vices, with the motives for and againſt each, the directions to attain the virtues, and avoid the vices; and this in all the various real circumſtances of human life. Learned inquiries have their uſe undoubtedly; but they are much better communicated to the learned world by the preſs, than to a mixed aſſembly by the pulpit. It is a kind of ſacrilege to rob God's flock of the nouriſhment due to them from public preachings, and, in its ſtead, to run out upon queſtions, that miniſter no profit to the hearers, at leaſt far the greateſt part.

As to the preſs, ſince all other men have the liberty of conveying their thoughts to the public that way, it is ſurely unfitting, that the miniſters of the goſpel ſhould be deprived of it. And, indeed, to lay any reſtraints, looks like diſtruſting the cauſe. There is undoubtedly a very bad uſe made of the preſs, and *woe to thoſe by whom offences come* to the little ones that believe in Chriſt! But it is to be hoped and preſumed, that the power of the wicked to do harm is not equal to the power of the good to do good, in this or any other ſuch neutral method of communicating infection good and bad to the

the public. This would be to prefer barbarity and ignorance to the inſtruction and civilization of mankind. Learning, arts, and improvements of all kinds, are ſubſervient both to good and bad purpoſes; and yet ſtill the balance is probably on the ſide of good upon the whole, ſince God is all powerful, all wiſe, and all good. Theſe attributes muſt ever turn the ſcale to their own ſide, finitely in every finite portion of time, infinitely in infinite time. We need not fear therefore, but that true knowledge will at laſt be increaſed and prevail, that the wiſe and good will underſtand, the wicked be ſilenced and converted, and the church of Chriſt fill the whole earth. It is a great inſult offered to the truths of religion, to ſuppoſe that they want the ſame kind of aſſiſtance as impoſtures, human projects, or worldly deſigns. Let every man be allowed to think, ſpeak, and write, freely; and then the errors will combat one another, and leave truth unhurt.

Sixthly, Though creeds, articles, &c. ſeem to have no uſe now, but even to be prejudicial to the cauſe of truth in themſelves; yet it may be neceſſary to ſubmit to ſome forms of this kind in certain caſes; at leaſt, it no ways becomes a chriſtian to declaim againſt them in violent terms, or oppoſe them with bitterneſs, but merely, in a plain diſpaſſionate way, to repreſent the truth of the caſe, ſo as by degrees to draw men's zeal from theſe leſſer matters, and transfer it upon greater. *Let not him that eateth, deſpiſe him that eateth not; and let not him which eateth not, judge him that eateth.* There may be good relative reaſons in both caſes. And it may be, and probably is the truth, that in the early ages of the church, whilſt chriſtians were Judaizers, entangled in externals, groſs in their conceptions, &c. theſe forms were neceſſary, *cæteris manentibus.* But now they grow old, and ſeem ready to die away, and to give place to the worſhip of God *in ſpirit, and in truth*; in which there is no *Papiſt, Proteſtant, Lutheran, Calviniſt, Trinitarian, Unitarian, Myſtic, Methodiſt,* &c. but all theſe diſtinctions are carried away like the chaff of the ſummer threſhing-floors. We are all chriſtians, we received this denomination in apoſtolic times, and ought to ſeek no other. Only let us take care to depart from iniquity, to have the true ſeal of God in our foreheads, not the mark of the beaſt. The real converſion of the heart from the idolatrous worſhip of pleaſure, honour, and profit, of ſenſation, imagination, ambition, and ſelf-intereſt, to ſerve the living God, is the only thing of importance; *circumciſion and uncircumciſion are equally nothing. Let every man abide in the ſame calling wherein he was called.* Only, where a plain act of inſincerity is required, this approaches to the caſe of eating in the idol's temple, and gives great offence to others.

Seventhly, If we examine the doctrines which are chiefly conteſted among chriſtians by the oppoſite parties, it will appear, that the diſputes are, in great meaſure, verbal, and proceed from men's not knowing the true nature and uſe of words. Thus, if we conſider the doctrine of infallibility, the nature of words ſhews at once, that this could be of no uſe, ſince the deciſions of the infallible judge muſt be expreſſed in words, and conſequently be liable to be miſunderſtood by ſome or other of the readers, for the

the ſame reaſons as the ſcriptures are.—To ſay that Chriſt's body and blood are in the bread and wine ſo as that the ſenſible qualities of one become the ſenſible qualities of the other, would be to appeal to the ſenſes for aſſent, where they inſtantly reject the propoſition. To ſay that Chriſt's myſtical or glorified body is preſent in ſome way or other, is what no one can deny, becauſe nothing is really affirmed. The words ſeem to coaleſce into a verbal truth; but when we attempt to realize the propoſition, it vaniſhes. The ſcripture expreſſions concerning the myſtical body of Chriſt, and his union with the church, contain within them ſome moſt important and wonderful truths undoubtedly, but they are yet ſealed up from us.—In the diſputes concerning the trinity and incarnation of Chriſt, if the words *perſon*, *ſubſtance*, *nature*, &c. be uſed as in other caſes, or any way defined, the moſt expreſs contradictions follow: yet the language of the ſcriptures is moſt difficult, ſublime, and myſterious, in reſpect of the perſon of Chriſt; ſo that one cannot fall ſhort of paying all that honour to Chriſt, which the moſt orthodox believe to be required—As to the doctrine of the ſatisfaction of Chriſt, it appears that he has done all for us that one being can do for another; and that it would be a moſt unjuſtifiable and narrow way of expreſſing ourſelves, to confine the benefits received from Chriſt to that of mere example. But the firſt and moſt literal ſenſe of the words *ſacrifice*, *redemption*, &c. when realized, is evidently impoſſible; and we do not ſeem to be able to give any better general ſenſe to theſe words, than by ſaying, that they ſignify, that the ſufferings of one being are, by the order of God, made the means of happineſs to another. To adopt the ideas of *debt*, *wrath of God*, &c. in a ſtrict ſenſe, is anthropomorphitiſm.——The introduction of new, unſcriptural, technical terms ſeems ſcarce juſtifiable, unleſs as far as one chriſtian brother may thereby endeavour to make the harmony and analogy of the ſcripture language to itſelf, and to the courſe of nature, more evident to another. But this is all *private interpretation*. And it often happens in theſe caſes, that an hypotheſis is taken up haſtily, in order to reconcile the ſcripture to itſelf, like thoſe philoſophical ones, which are not drawn from a number of concurring facts, but merely accommodated to a few particular appearances.

CHAP. IV.

Of the EXPECTATIONS *of* MANKIND, *here and hereafter, in* CONSEQUENCE *of their* OBSERVANCE *or* VIOLATION *of the* RULE *of* LIFE.

SECT. I.

OF THE EXPECTATIONS OF INDIVIDUALS IN THE PRESENT LIFE.

PROP. CLXXVI.

It is probable, that moſt or all Men receive more Happineſs than Miſery in their Paſſage through the preſent Life.

SOME evidences for this propoſition have been given above, where it was alleged as one of the proofs of the goodneſs of God. Here we may conſider it, both as deducible from thoſe evidences, and from the goodneſs of God, previouſly eſtabliſhed upon independent principles.

For if we ſuppoſe God to be both infinitely benevolent, and the ſole cauſe of all things; if, farther, the relative appellations of governor, friend, and father, may with propriety be made the foundation of our inquiries into his diſpoſitions in general (all which I have endeavoured to prove above); we can ſcarce ſuppoſe, but that the remarkable period of our exiſtence, which commences at our birth, and ends with the death of the body, which we then brought into the world with us, will, upon the whole, afford us more pleaſure than pain. This is, at leaſt, our firſt and moſt natural preſumption, in the view of things here conſidered. However, it muſt always be remembered, that we are not proper judges of ſuch high ſpeculations; and that an over-balance of miſery in this life, or any other, is perfectly conſiſtent with the infinite goodneſs of God, even according to our ways of reaſoning, upon ſuppoſition that all his creatures become happy upon the whole at laſt, finitely or infinitely.

I chooſe therefore to reſt this propoſition chiefly upon certain intimations, and indirect evidences thereof, which are ſcattered up and down in the ſcriptures. Such are the bleſſing of God conferred upon *all* his creatures at their creation, his covenant with them *all* at the flood, the precepts to *all* to praiſe him, the mention of his being *loving*

to

to every man, of remembering mercy in judgment, not being *extreme to mark what is done amiſs*, &c. Theſe are no direct proofs of the propoſition here advanced; but they leave ſuch impreſſions of love and mercy upon the mind, and ſeem intended to put us into ſuch a way of thinking and reaſoning, as lead to it. They afford therefore ſome preſumption in its favour, ſince nothing contrary thereto is to be found any where either in the word or works of God.

The murmurings, and bitter outcries, of men in a ſtate of ſuffering, are no more an evidence againſt this propoſition, than the extravagant mirth, and chimerical hopes, of unexperienced perſons, during health and proſperity, are for it. Neither of theſe take in the whole of the caſe.

PROP. CLXXVII.

The Balance cannot be much in Favour even of the moſt happy, during the preſent Life.

For, Firſt, This is agreeable to the general experience of mankind. It is obvious, that life is chequered with good and evil in ſuch degrees and varieties, as that the firſt cannot prevail much. Agreeably to this, the experienced and diſpaſſionate, in reviewing their paſt life, will at leaſt affirm, that the happineſs has not greatly exceeded the miſery. And indeed the difficulty of proving the foregoing propoſition is a very ſufficient evidence for this.

Secondly, The diſorderly ſtate of the external world, and the imperfection of our bodies, with their tendency to corruption, do not permit, that happineſs ſhould much exceed miſery in the preſent life; and may be conſidered as the efficient inſtrumental cauſe of this. Bodily pain muſt in many caſes be impreſſed upon us by external objects; both this, and bodily pleaſure, lay the foundation for intellectual pains, and for irregular paſſions, which lead back again to pain, bodily and mental; our bodies muſt return to duſt, and every manifeſt approach thereto muſt be attended with ſuffering; and the unknown internal ſtructure of the brain, the great inſtrument of ſenſe and thought, is ſuch, as ſubjects us, from innumerable ſecret unavoidable cauſes, to paſs into the limits of pain. All which is only ſaying in other words, that we are fallen creatures.

Thirdly, In our preſent circumſtances, all other things remaining as they are, it is requiſite for us not to have any great over-balance of happineſs in this life; and this may be conſidered as the final cauſe. For we may hope, by this perpetual mixture of miſery with our happineſs, to be the ſooner and the more perfectly freed from that ſelf-love, groſs or refined, which every kind and degree of happineſs, even the moſt ſpiritual, contributes to generate in us; and to make the greater progreſs in learning the virtues of benevolence, compaſſion, humility, fear of God, ſubmiſſion to his will, earneſt application to him, faith, hope, love towards him.

Fourthly, The whole tenor of the ſcriptures ſhews both in a direct and indirect way, that we ought not, cannot expect any great or laſting happineſs in this life.

We ought therefore, whenever falſe flattering hopes, with relation to our future condition in this life, riſe up to view in our imaginations, and tempt us, inſtantly to reject them; and, in the language of the ſcriptures, *to rejoice as though we rejoiced not*; to remember that we *are ſtrangers and pilgrims here*, that we only *dwell in tabernacles, have no continuing city*, but *expect one to come, the new Jeruſalem*, of which we are denizens, *where our treaſure and hearts ought to be*. The beſt and moſt religious perſons ought to expect, and even to deſire this *daily bread* of ſorrow and affliction, this *bleſſedneſs of thoſe that mourn*, and *to watch and pray* againſt the temptations of proſperity, leſt the day of death ſhould come upon them unawares, *as a thief in the night, while they are eating and drinking, marrying and giving in marriage.*

Cor. We might ſhew, by a like method of reaſoning, that if the miſery of this life ſhould, in certain caſes, outweigh the happineſs, it cannot, however, do this in any great degree. There muſt from the nature of our frame and circumſtances here, be many intervals of eaſe, cheerfulneſs, and even poſitive pleaſure. Dejection and deſpondency are therefore as unſuitable to our preſent ſituation, as a vain confidence, and fooliſh hope, of uninterrupted happineſs. We may learn alſo hence not to be terrified at any ſelf-denials or ſufferings for the ſake of religion, excluſively of thoſe arguments, which ſhew in a direct way, that religion promotes our preſent happineſs, as well as our future. Our very natures prevent the long continuance of exquiſite miſery. Miſery by continuance declines, and even paſſes into happineſs; and there muſt be, in every ſtate of long continuance, the frequent intervention of grateful ſenſations and ideas.

PROP. CLXXVIII.

Virtue has always the faireſt Proſpect, even in this Life; and Vice is always expoſed to the greateſt Hazards.

This has been the buſineſs of the laſt chapter to ſhew. But it is a truth, which is ſufficiently evident from common obſervation. Particular acts of virtue and vice often fail of their due reward and puniſhment, if we take in no more than a ſmall period of time after the act is performed. But then, if we take in the indefinite extent of this life, and eſtimate the natural expectations, it can ſcarce be doubted, but that every act of virtue is our greateſt wiſdom, even in reſpect of this world, every act of vice our greateſt folly. Now this general tendency of virtue and vice reſpectively may be conſidered as the principal evidence, which the light of nature, not ſubtilized or refined by deep ſpeculations, affords for the moral character of the Deity. The rewards which the courſe of nature beſtows upon virtue in general, and the fairneſs of the

proſpect

proſpect which it affords to the virtuous, ſhew that the virtuous are acceptable to the Deity; and we may conclude for like reaſons, that vice is odious in his ſight.

PROP. CLXXIX.

It does not ſeem at all probable, that Happineſs is exactly proportioned to Virtue in the preſent Life.

For, Firſt, Thoſe who ſuffer martyrdom for the ſake of religion cannot be ſaid to receive any reward in this life for this their laſt and greateſt act of fidelity.

Secondly, Many good men are exerciſed with ſevere trials, purified thereby, and removed into another ſtate in the courſe of this purification, or ſoon after it. Diſeaſes which end in death, are a principal means of ſuch purifications.

Thirdly, There are frequent inſtances of perſons free indeed from groſs vices, but void of great virtues, who from a favourable conjuncture of circumſtances in this world, ſuch as we may ſuppoſe attended the rich man in the parable, *fair ſumptuouſly every day*, and live in a ſtate of comparative eaſe and pleaſure.

Fourthly, The ſame thing ſeems to hold in certain rare inſtances, even of very vicious perſons; and one might almoſt conjecture, that Providence expoſes ſome inſtances of this kind to view in a notorious manner, that the apparent inequality of its diſpenſations here, in a few caſes, and the argument for a future ſtate thence deducible, may make the greater impreſſion upon us.

The reader may obſerve, that this propoſition is not contrary to the foregoing; and that the foregoing muſt be eſtabliſhed previouſly, before we can draw an argument for a future ſtate from this, and the moral character of the Deity, put together.

It is to be obſerved alſo of the reaſoning made uſe of under all the four propoſitions of this ſection, that it is rather probable, and concluſive, in a general way only, than demonſtrative and preciſe. However, the probability and preciſion are as great as is neceſſary in practical matters. The practical inferences would remain the ſame, though theſe were leſs.

SECT. II.

OF THE EXPECTATION OF BODIES POLITIC, THE JEWS IN PARTICULAR, AND THE WORLD IN GENERAL, DURING THE PRESENT STATE OF THE EARTH.

PROP. CLXXX.

It is probable, that all the preſent civil Governments will be overturned.

This may appear from the ſcripture prophecies, both in a direct way, *i. e.* from expreſs paſſages; ſuch as thoſe concerning the deſtruction of the image, and four beaſts, in *Daniel*; of Chriſt's *breaking all nations with a rod of iron, and daſhing them in pieces like a potter's veſſel*, &c. and from the ſupremacy and univerſal extent of the fifth monarchy, or kingdom of the ſaints, which is to be ſet up.

We may conclude the ſame thing alſo from the final reſtoration of the *Jews*, and the great glory and dominion promiſed to them, of which I ſhall ſpeak below.

And it adds ſome light and evidence to this, that all the known governments of the world have the evident principles of corruption in themſelves. They are compoſed of jarring elements, and ſubſiſt only by the alternate prevalence of theſe over each other. The ſplendour, luxury, ſelf-intereſt, martial glory, &c. which paſs for eſſentials in chriſtian governments, are totally oppoſite to the meek, humble, ſelf-denying ſpirit of chriſtianity; and whichſover of theſe finally prevails over the other, the preſent form of the government muſt be diſſolved. Did true chriſtianity prevail throughout any kingdom entirely, the riches, ſtrength, glory, &c. of that kingdom would no longer be an object of attention to the governors or governed; they would become a nation of prieſts and apoſtles, and totally diſregard the things of this world. But this is not to be expected: I only mention it to ſet before the reader the natural conſequence of it. If, on the contrary, worldly wiſdom and infidelity prevail over chriſtianity, which ſeems to be the prediction of the ſcriptures, this worldly wiſdom will be found utter fooliſhneſs at laſt, even in reſpect of this world; the governments, which have thus loſt their cement, the ſenſe of duty, and the hopes and fears of a future life, will fall into anarchy and confuſion, and be entirely diſſolved. And all this may be applied, with a little change, to the *Mahometan* and *heathen* governments. When chriſtianity comes to be propagated in the countries where theſe ſubſiſt, it will make

make ſo great a change in the face of affairs, as muſt ſhake the civil powers, which are here both externally and internally oppoſite to it; and the increaſe of wickedneſs, which is the natural and neceſſary conſequence of their oppoſition, will farther accelerate their ruin.

The diſſolution of ancient empires and republics may alſo prepare us for the expectation of a diſſolution of the preſent governments. But we muſt not carry the parellel too far here, and ſuppoſe that as new governments have ariſen out of the old ones, reſembling them in great meaſure, ſubſiſting for a certain time, and then giving place to other new ones, ſo it will be with the preſent governments. The prophecies do not admit of this; and it may be eaſily ſeen, that the ſituation of things in the great world is very different from what it has ever been before. Chriſtianity muſt now either be proved true, to the entire conviction of unbelievers; or, if it be an impoſture, it will ſoon be detected. And whichſoever of theſe turns up, muſt make the greateſt change in the face of affairs. I ought rather to have ſaid, that the final prevalence and eſtabliſhment of chriſtianity, which, being true, cannot but finally prevail, and be eſtabliſhed, will do this. But it may perhaps be of ſome uſe juſt to put falſe ſuppoſitions.

How near the diſſolution of the preſent governments, generally or particularly, may be, would be great raſhneſs to affirm. Chriſt will come in this ſenſe alſo *as a thief in the night*. Our duty is therefore to watch, and to pray; to be faithful ſtewards; to give meat, and all other requiſites, in due ſeaſon, to thoſe under our care; and to endeavour by theſe, and all other lawful means, to preſerve the government, under whoſe protection we live, from diſſolution, ſeeking the peace of it, and ſubmitting to every ordinance of man for the Lord's ſake. No prayers, no endeavours of this kind, can fail of having ſome good effect, public or private, for the preſervation of ourſelves or others. The great diſpenſations of Providence are conducted by means that are either ſecret, or, if they appear, that are judged feeble and inefficacious. No man can tell, however private his ſtation may be, but his fervent prayer may avail to the ſalvation of much people. But it is more peculiarly the duty of magiſtrates thus to watch over their ſubjects, to pray for them, and to ſet about the reformation of all matters civil and eccleſiaſtical, to the utmoſt of their power. Good governors may promote the welfare and continuance of a ſtate, and wicked ones muſt accelerate its ruin. The ſacred hiſtory affords us inſtances of both kinds, and they are recorded there for the admonition of kings and princes in all future times.

It may not be amiſs here to note a few inſtances of the analogy between the body natural, with the happineſs of the individual to which it belongs, and the body politic, compoſed of many individuals, with its happineſs, or its flouriſhing ſtate in reſpect of arts, power, riches, &c. Thus all bodies politic ſeem, like the body natural, to tend to deſtruction and diſſolution, as is here affirmed, through vices public and private, and to be reſpited for certain intervals, by partial, imperfect reformations,

reformations. There is no complete or continued ſeries of public happineſs on one hand, no utter miſery on the other; for the diſſolution of the body politic is to be conſidered as its death. It ſeems as romantic therefore for any one to project the ſcheme of a perfect government in this imperfect ſtate, as to be in purſuit of an univerſal remedy, a remedy which ſhould cure all diſtempers, and prolong human life beyond limit. And yet as temperance, labour, and medicines, in ſome caſes, are of great uſe in preſerving and reſtoring health, and prolonging life; ſo induſtry, juſtice, and all other virtues, public and private, have an analogous effect in reſpect of the body politic. As all the evils, which individuals ſuffer through the infirmity of the mortal body, and the diſorders of the external world, may, in general, contribute to increaſe their happineſs even in this life, and alſo are of great uſe to others; and as, upon the ſuppoſition of a future ſtate, death itſelf appears to have the ſame beneficial tendency in a more eminent degree than any other event in life, now conſidered as indefinitely prolonged; ſo the diſtreſſes of each body politic are of great uſe to this body itſelf, and alſo of great uſe to all neighbouring ſtates; and the diſſolutions of governments have much promoted the knowledge of true religion, and of uſeful arts and ſciences, all which ſeem, in due time and manner, intended to be entirely ſubſervient to true religion at laſt. And this affords great comfort to benevolent and religious perſons, when they conſider the hiſtories of former times, or contemplate the probable conſequences of things in future generations.

PROP. CLXXXI.

It is probable, that the preſent Forms of Church Government will be diſſolved.

This propoſition follows from the foregoing. The civil and eccleſiaſtical powers are ſo interwoven and cemented together, in all the countries of *chriſtendom*, that if the firſt fall, the laſt muſt fall alſo.

But there are many prophecies, which declare the fall of the eccleſiaſtical powers of the chriſtian world. And though each church ſeems to flatter itſelf with the hopes of being exempted; yet it is very plain, that the prophetical characters belong to all. They have all left the true, pure, ſimple religion; and teach for doctrines the commandments of men. They are all merchants of the earth, and have ſet up a kingdom of this world, abounding in riches, temporal power, and external pomp. They have all a dogmatizing ſpirit, and perſecute ſuch as do not receive their own mark, and worſhip the image which they have ſet up. They all neglect Chriſt's command of preaching the goſpel to all nations, and even that of going to *the loſt ſheep of the houſe of Iſrael*, there being innumerable multitudes in all chriſtian countries, who have never been taught to read, and who are, in other reſpects alſo, deſtitute of the means of ſaving knowledge. It is very true, that the church of *Rome* is *Babylon the great, and the mother*

mother of harlots, and of the abominations of the earth. But all the reſt have copied her example, more or leſs. They have all received money, like *Gehazi*; and therefore the leproſy of *Naaman* will cleave to them, and to their ſeed for ever. And this impurity may be conſidered not only as juſtifying the application of the prophecies to all the chriſtian churches, but as a natural cauſe for their downfal. The corrupt governors of the ſeveral churches will ever oppoſe the true goſpel, and in ſo doing will bring ruin upon themſelves.

The deſtruction of the temple at *Jeruſalem*, and of the hierarchy of the *Jews*, may likewiſe be conſidered as a type and preſage of the deſtruction of that *Judaical* form of rites, ceremonies, and human ordinances, which takes place, more or leſs, in all chriſtian countries.

We ought, however, to remark here,

Firſt, That though the church of Chriſt has been corrupted thus in all ages and nations, yet there have been, and will be, in all, many who receive the ſeal of God, and worſhip him *in ſpirit, and in truth.* And of theſe as many have filled high ſtations, as low ones. Such perſons, though they have concurred in the ſupport of what is contrary to the pure religion, have, however, done it innocently, with reſpect to themſelves, being led thereto by invincible prejudices.

Secondly, Nevertheleſs, when it ſo happens, that perſons in high ſtations in the church have their eyes enlightened, and ſee the corruptions and deficiencies of it, they muſt incur the prophetical cenſures in the higheſt degree, if they ſtill concur, nay, if they do not endeavour to reform and purge out theſe defilements. And though they cannot, according to this propoſition, expect entire ſucceſs; yet they may be bleſſed with ſuch a degree, as will abundantly compenſate their utmoſt endeavours, and rank them with the prophets and apoſtles.

Thirdly, As this corruption and degeneracy of the chriſtian church has proceeded from the fallen ſtate of mankind, and particularly of thoſe nations to whom the goſpel was firſt preached, and amongſt whom it has been ſince received; ſo it has, all other things being ſuppoſed to remain the ſame, ſuited our circumſtances, in the beſt manner poſſible, and will continue to do ſo, as long as it ſubſiſts. God brings good out of evil, and draws men to himſelf in ſuch manner as their natures will admit of, by external pomp and power, by things not good in themſelves, and by ſome that are profane and unholy. He makes uſe of ſome of their corruptions, as means of purging away the reſt. The impurity of mankind is too groſs to unite at once with the ſtrict purity of the goſpel. The *Roman* empire firſt, and the *Goths* and *Vandals* afterwards, required, as one may ſay, ſome ſuperſtitions and idolatries to be mixed with the chriſtian religion; elſe they could not have been converted at all.

Fourthly, It follows from theſe conſiderations, that good men ought to ſubmit to the eccleſiaſtical *powers that be*, for conſcience ſake, as well as to the civil ones. They are both from God, as far as reſpects inferiors. Chriſt and his apoſtles obſerved

the law, and walked orderly, though they declared the deſtruction of the temple, and the change of the cuſtoms eſtabliſhed by *Moſes*. Both the *Babylonians*, who deſtroyed *Jeruſalem* the firſt time, and the *Romans*, who did it the ſecond, were afterwards deſtroyed themſelves in the moſt exemplary manner. And it is probable, that thoſe who ſhall hereafter procure the downfal of the forms of church-government, will not do this from pure love, and chriſtian charity, but from the moſt corrupt motives, and by conſequence bring upon themſelves, in the end, the ſevereſt chaſtiſements. It is therefore the duty of all good chriſtians to obey both the civil and eccleſiaſtical powers under which they were born, *i. e.* provided diſobedience to God be not enjoined, which is ſeldom the caſe; to promote ſubjection and obedience in others; gently to reform and rectify, and to pray for the peace and proſperity of their own *Jeruſalem*.

PROP. CLXXXII.

It is probable, that the Jews *will be reſtored to* Palæſtine.

This appears from the prophecies, which relate to the reſtoration of the *Jews* and *Iſraelites* to their own land. For,

Firſt, Theſe have never yet been fulfilled in any ſenſe agreeable to the greatneſs and glorioufneſs of them. The peace, power, and abundance of bleſſings, temporal and ſpiritual, promiſed to the *Jews* upon their return from captivity, were not beſtowed upon them in the interval between the reign of *Cyrus*, and the deſtruction of *Jeruſalem* by *Titus*; and ever ſince this deſtruction they have remained in a deſolate ſtate.

Secondly, The promiſes of reſtoration relate to the ten tribes, as well as the two of *Judah* and *Benjamin*. But the ten tribes, or *Iſraelites*, which were captivated by *Salmaneſer*, have never been reſtored at all. There remains therefore a reſtoration yet future for them.

Our ignorance of the place where they now lie hid, or fears that they are ſo mixed with other nations, as not to be diſtinguiſhed and ſeparated, ought not to be admitted as objections here. Like objections might be made to the reſurrection of the body; and the objections both to the one, and the other, are probably intended to be obviated by *Ezekiel*'s prophecy concerning the dry bones. It was one of the great ſins of the *Jews* to call God's promiſes in queſtion, on account of apparent difficulties and impoſſibilities; and the *Sadducees*, in particular, erred concerning the reſurrection, becauſe *they knew not the ſcriptures, nor the power of God.* However, it is our duty to inquire, whether the ten tribes may not remain in the countries where they were firſt ſettled by *Salmaneſer*, or in ſome others.

Thirdly, A double return ſeems to be predicted in ſeveral prophecies.

Fourthly,

Fourthly, The prophets who lived ſince the return from *Babylon*, have predicted a return in ſimilar terms with thoſe who went before. It follows therefore, that the predictions of both muſt relate to ſome reſtoration yet future.

Fifthly, The reſtoration of the *Jews* to their own land ſeems to be predicted in the New Teſtament.

To theſe arguments, drawn from prophecy, we may add ſome concurring evidences, which the preſent circumſtances of the *Jews* ſuggeſt.

Firſt, then, The *Jews* are yet a diſtinct people from all the nations amongſt which they reſide. They ſeem therefore reſerved by Providence for ſome ſuch ſignal favour, after they have ſuffered the due chaſtiſement.

Secondly, They are to be found in all the countries of the known world. And this agrees with many remarkable paſſages of the ſcriptures, which treat both of their diſperſion, and of their return.

Thirdly, They have no inheritance of land in any country. Their poſſeſſions are chiefly money and Jewels. They may therefore transfer themſelves with the greater facility to *Palæſtine*.

Fourthly, They are treated with contempt and harſhneſs, and ſometimes with great cruelty, by the nations amongſt whom they ſojourn. They muſt therefore be the more ready to return to their own land.

Fifthly, They carry on a correſpondence with each other throughout the whole world; and conſequently muſt both know when circumſtances begin to favour their return, and be able to concert meaſures with one another concerning it.

Sixthly, A great part of them ſpeak and write the *Rabbinical Hebrew*, as well as the language of the country where they reſide. They are therefore, as far as relates to themſelves, actually poſſeſſed of an univerſal language and character; which is a circumſtance that may facilitate their return, beyond what can well be imagined.

Seventhly, The *Jews* themſelves ſtill retain a hope and expectation, that God will once more reſtore them to their own land.

Cor. 1. May not the two captivities of the *Jews*, and their two reſtorations, be types of the firſt and ſecond death, and of the firſt and ſecond reſurrections?

Cor. 2. Does it not appear agreeable to the whole analogy both of the word and works of God, that the *Jews* are types both of each individual in particular, on one hand, and of the whole world in general, on the other? May we not therefore hope, that, at leaſt after the ſecond death, there will be a reſurrection to life eternal to every man, and to the whole creation, which groans, and travails in pain together, waiting for the adoption, and glorious liberty, of the children of God?

Cor. 3. As the downfal of the *Jewiſh* ſtate under *Titus* was the occaſion of the publication of the goſpel to us Gentiles, ſo our downfal may contribute to the reſtoration of the *Jews*, and both together bring on the final publication and prevalence of the true

religion; of which I ſhall treat in the next propoſition. Thus the type, and the thing typified, will coincide; the firſt fruits, and the lump, be made holy together.

PROP. CLXXXIII.

The Chriſtian Religion will be preached to, and received by, all Nations.

THIS appears from the expreſs declarations of Chriſt, and from many of his parables, alſo from the declarations and predictions of the apoſtles, and particularly from the *revelation.* There are likewiſe numberleſs prophecies in the Old Teſtament, which admit of no other ſenſe, when interpreted by the events which have ſince happened, the coming of Chriſt, and the propagation of his religion.

The truth of the chriſtian religion is an earneſt and preſage of the ſame thing, to all who receive it. For every truth of great importance muſt be diſcuſſed and prevail at laſt. The perſons who believe can ſee no reaſons for their own belief, but what muſt extend to all mankind by degrees, as the diffuſion of knowledge to all ranks and orders of men, to all nations, kindred, tongues, and people, cannot now be ſtopped, but proceeds ever with an accelerated velocity. And, agreeably to this, it appears that the number of thoſe who are able to give a reaſon for their faith increaſes every day.

But it may not be amiſs to ſet before the reader in one view ſome probable preſumptions for the univerſal publication and prevalence of the chriſtian religion, even in the way of natural cauſes.

Firſt, then, The great increaſe of knowledge, literary and philoſophical, which has been made in this and the two laſt centuries, and continues to be made, muſt contribute to promote every great truth, and particularly thoſe of revealed religion, as juſt now mentioned. The coincidence of the three remarkable events, of the reformation, the invention of printing, and the reſtoration of letters, with each other, in time, deſerves particular notice here.

Secondly, The commerce between the ſeveral nations of the world is enlarged perpetually more and more. And thus the children of this world are opening new ways of communication for future apoſtles to ſpread the glad tidings of ſalvation to the uttermoſt parts of the earth.

Thirdly, The apoſtaſy of nominal chriſtians, and objections of infidels, which are ſo remarkable in theſe days, not only give occaſion to ſearch out and publiſh new evidences for the truth of revealed religion, but alſo oblige thoſe who receive it, to purify it from errors and ſuperſtitions; by which means its progreſs amongſt the yet heathen nations will be much forwarded. Were we to propagate religion, as it is now held by the ſeveral churches, each perſon would propagate his own orthodoxy, lay needleſs impediments and ſtumbling blocks before his hearers, and occaſion endleſs feuds and diſ-

ſenſions

ſenſions amongſt the new converts. And it ſeems as if God did not intend, that the general preaching of the goſpel ſhould be begun, till religion be diſcharged of its incumbrances and ſuperſtitions.

Fourthly, The various ſects which have ariſen amongſt chriſtians in late times, contribute both to purify religion, and alſo to ſet all the great truths of it in a full light, and to ſhew their practical importance.

Fifthly, The downfal of the civil and eccleſiaſtical powers, mentioned in the 181 and 182 propoſitions, muſt both be attended with ſuch public calamities, as will make men ſerious, and alſo drive them from the countries of *chriſtendom* into the remote parts of the world, particularly into the *Eaſt* and *Weſt Indies*; whither conſequently they will carry their religion now purified from errors and ſuperſtitions.

Sixthly, The reſtoration of the *Jews*, mentioned in the laſt propoſition, may be expected to have the greateſt effect in alarming mankind, and opening their eyes. This will be ſuch an accompliſhment of the prophecies, as will vindicate them from all cavils. Beſides which, the careful ſurvey of *Palæſtine*, and the neighbouring countries, the ſtudy of the *Eaſtern* languages, of the hiſtories of the preſent and ancient inhabitants, &c. (which muſt follow this event) when compared together, will caſt the greateſt light upon the ſcriptures, and at once prove their genuineneſs, their truth, and their divine authority.

Seventhly, Mankind ſeem to have it in their power to obtain ſuch qualifications in a natural way, as, by being conferred upon the apoſtles in a ſupernatural one, were a principal means of their ſucceſs in the firſt propagation of the goſpel.

Thus, as the apoſtles had the power of healing miraculouſly, future miſſionaries may in a ſhort time accompliſh themſelves with the knowledge of all the chief practical rules of the art of medicine. This art is wonderfully ſimplified of late years, has received great additions, and is improving every day, both in ſimplicity and efficacy. And it may be hoped, that a few theoretical poſitions, well aſcertained, with a moderate experience, may enable the young practitioner to proceed to a conſiderable variety of caſes with ſafety and ſucceſs.

Thus alſo, as the apoſtles had the power of ſpeaking various languages miraculouſly, it ſeems poſſible from the late improvements in grammar, logic, and the hiſtory of the human mind, for young perſons, by learning the names of viſible objects and actions in any unknown barbarous language, to improve and extend it immediately, and to preach to the natives in it.

The greateſt extenſiveneſs of the *Rabbinical Hebrew*, and of *Arabic*, of *Greek* and *Latin*, of *Sclavonic* and *French*, and of many other languages, in their reſpective ways, alſo of the *Chineſe* character, ought to be taken into conſideration here.

And though we have not the gift of prophecy, yet that of the interpretation of prophecy ſeems to increaſe every day, by comparing the ſcriptures with themſelves, the prophecies with the events, and, in general, the word of God with his works.

To

To this we may add, that when preachers of the goſpel carry with them the uſeful manual arts, by which human life is rendered ſecure and comfortable, ſuch as the arts of building, tilling the ground, defending the body by ſuitable clothing, &c. it cannot but make them extremely acceptable to the barbarous nations; as the more refined arts and ſciences, mathematics, natural and experimental philoſophy, &c. will to the more civilized ones.

And it is an additional weight in favour of all this reaſoning, that the qualifications here conſidered may all be acquired in a natural way. For thus they admit of unlimited communication, improvement, and increaſe; whereas, when miraculous powers ceaſe, there is not only one of the evidences withdrawn, but a recommendation and means of admittance alſo.

However, far it be from us to determine by anticipation, what God may or may not do! The natural powers, which favour the execution of this great command of our Saviour's, to preach the goſpel to all nations, ought to be perpetual monitors to us to do ſo; and, as we now live in a more adult age of the world, more will now be expected from our natural powers. The *Jews* had ſome previous notices of Chriſt's firſt coming, and good perſons were thereby prepared to receive him; however, his appearance, and entire conduct, were very different from what they expected; ſo that they ſtood in need of the greateſt docility and humility, in order to become diſciples and apoſtles. And it is probable, that ſomething analogous to this will happen at Chriſt's ſecond coming. We may perhaps ſay, that ſome glimmerings of the day begin already to ſhine in the hearts of all thoſe, who ſtudy and delight in the word and works of God.

PROP. CLXXXIV.

It is not probable, that there will be any pure or complete Happineſs, before the Deſtruction of this World by Fire.

That the reſtoration of the *Jews*, and the univerſal eſtabliſhment of the true religion, will be the cauſes of great happineſs, and change the face of this world much for the better, may be inferred both from the prophecies, and from the nature of the thing. But ſtill, that the great crown of glory promiſed to chriſtians muſt be in a ſtate ulterior to this eſtabliſhment, appears for the following reaſons.

Firſt, From the expreſs declarations of the ſcriptures. Thus St. *Peter* ſays, that the earth muſt be burnt up, before we are to expect *a new heaven, and new earth, wherein dwelleth righteouſneſs*; and St. *Paul*, that *fleſh and blood cannot inherit the kingdom of God*; the celeſtial, glorious body, made like unto that of Chriſt, at the reſurrection of the dead, being requiſite for this purpoſe.

Secondly, The preſent diſorderly ſtate of the natural world does not permit of unmixed happineſs; and it does not ſeem, that this can be rectified in any great degree, till the earth have received the baptiſm by fire.

But

But I preſume to affirm nothing particular in relation to future events. One may juſt aſk, whether Chriſt's reign of a thouſand years upon earth does not commence with the univerſal eſtabliſhment of chriſtianity; and whether the ſecond reſurrection, the new heavens and new earth, &c. do not coincide with the conflagration.

One ought alſo to add, with St. *Peter*, as the practical conſequence of this propoſition, that the diſſolution of this world by fire is the ſtrongeſt motive to an indifference to it, and to that holy converſation and godlineſs, which may fit us for *the new heavens, and new earth.*

SECT. III.

OF A FUTURE STATE AFTER THE EXPIRATION OF THIS LIFE.

PROP. CLXXXV.

It is probable from the mere Light of Nature, that there will be a future State.

I DO not here mean, that mankind in ancient times did diſcover a future ſtate, and reaſon themſelves into it. This, I apprehend, is contrary to the fact, a future ſtate having been taught all mankind by patriarchal revelations before or after the flood. Nor do I mean, that men could have done this without any aſſiſtance, primarily or ſecondarily, from revelation, and by mere unaſſiſted reaſon. This is a problem of too deep a nature to be determined concluſively; or, if it can, we ſhall determine for the oppoſite ſide, as it ſeems to me, as ſoon as our knowledge of the powers of the human mind is arrived at a ſufficient height. My deſign is only to ſhew, that the works of God are ſo far opened to us in the preſent age, that, when the queſtion concerning a future ſtate is put, we ought to determine for the affirmative, though the authority of his word be not taken into conſideration. Here then I obſerve,

Firſt, That it is not poſſible to produce any evidence againſt a future ſtate; ſo that the probability for it muſt at leaſt be equal to that againſt it, *i. e.* to the fraction $\frac{1}{2}$, if we ſpeak according to the preciſe language uſed in the doctrine of chances. We are apt indeed to conclude, that, becauſe what we ſee *is*, ſo what we ſee not, *is not*; and conſequently that there is no future ſtate, *i. e.* we make our ignorance of the means by which our exiſtence is preſerved after death, and of the manner in which we are to exiſt, an argument againſt it. But this is utterly inconcluſive. Our ignorance is a nothing, and therefore can be no foundation to go upon; and we have every day inſtances of the miſtakes which reaſoning from it would lead us into. If there be really a future

a future ſtate, it ſeems very poſſible, that its connection with other realities in this ſtate may afford preſumptions for it; and that it does ſo, I ſhall ſhew in the paragraphs that follow: but, if there be no future ſtate, this non-entity cannot have any properties or connections, upon which to erect an argument for it. We muſt therefore, previouſly to all probable arguments for a future ſtate, own that we are ignorant whence we came, and whither we go; and that our not being able to penetrate into the dark regions beyond death, were that abſolutely the caſe, would not be an evidence, that there is nothing in thoſe regions. That we can both penetrate thither, and diſcover ſomething in theſe regions, is my next buſineſs to ſhew. For,

Secondly, The ſubtle nature of ſenſation, thought, and motion, afford ſome poſitive preſumptions for a future ſtate. The connection of theſe with matter, and their dependence on it, are perhaps more fully ſeen in the foregoing account of vibrations and aſſociation, than in any other ſyſtem that has yet been produced. However, there remains one chaſm ſtill, viz. that between ſenſation, and the material organs, which this theory does not attempt to fill up. An immaterial ſubſtance may be required for the ſimpleſt ſenſation; and, if ſo, ſince it does not appear how this ſubſtance can be affected by the diſſolution of the groſs body at death, it remains probable, that it will ſubſiſt after death, *i. e.* that there will be a future ſtate.

Or if we take the ſyſtem of the materialiſts, and ſuppoſe matter capable of ſenſation, and conſequently of intellect, ratiocination, affection, and the voluntary power of motion, we muſt, however, ſuppoſe an elementary infiniteſimal body, in the embryo, capable of vegetating *in utero*, and of receiving and retaining ſuch a variety of impreſſions of the external world, as correſponds to all the variety of our ſenſations, thoughts, and motions; and, when the ſmallneſs and wonderful powers of this elementary body are conſidered in this view, it ſeems to me, that the depoſition of the groſs cruſt at death, which was merely inſtrumental during the whole courſe of life, is to be looked upon as having no more power to deſtroy it, than the accretion of this cruſt had a ſhare in its original exiſtence, and wonderful powers; but, on the contrary, that the elementary body will ſtill ſubſiſt, retain its power of vegetating again, and, when it does this ſhew what changes have been made in it by the impreſſions of external objects here, *i. e.* receive according to the deeds done in the *groſs* body, and reap as it has ſowed.

Or, if theſe ſpeculations be thought too refined, we may, however, from the evident inſtrumentality of the muſcles, membranes, bones, &c. to the nervous ſyſtem, and of one part of this to another, compared with the ſubtle nature of the principle of ſenſation, thought, and motion, infer in an obvious and popular, but probable way, that this principle only loſes its preſent inſtrument of action by death. And the reſtitution of our mental and voluntary powers, after their ceſſation or derangement by ſleep, apoplexies, maniacal and other diſorders, prepares for the more eaſy conception of the poſſibility and probability of the ſame thing after death. As therefore, before we enter upon any diſquiſitions of this kind, the probability for a future ſtate is juſt

equal

equal to that againſt it, *i. e.* each equal to the fraction $\frac{1}{2}$; ſo it ſeems, that the firſt ſtep we take, though it be through regions very faintly illuminated, does, however, turn the ſcale, in ſome meaſure, in favour of a future ſtate; and that, whether the principle of thought and action within us be conſidered in the moſt philoſophical light to which we can attain, or in an obvious and popular one.

Thirdly, The changes of ſome animals into a different form, after an apparent death, ſeem to be a ſtrong argument of the forementioned power of elementary animal bodies; as the growth of vegetables from ſeeds apparently putrefied is of a like power in elementary vegetable bodies. And all theſe phænomena, with the renewals of the face of nature, awaking from ſleep, recovery from diſeaſes, &c. ſeem in the vulgar, moſt obvious, and moſt natural way of conſidering theſe things, to be hints and preſumptions of a life after the extinction of this.

Fourthly, The great deſire of a future life, with the horror of annihilation, which are obſervable in a great part of mankind, are preſumptions for a future life, and againſt annihilation. All other appetites and inclinations have adequate objects prepared for them: it cannot therefore be ſuppoſed, that this ſum total of them all ſhould go ungratified. And this argument will hold, in ſome meaſure, from the mere analogy of nature, though we ſhould not have recourſe to the moral attributes of God; but it receives great additional force from conſidering him as our father and protector.

If it be ſaid, that this deſire is factitious, and the neceſſary effect of ſelf-love; I anſwer, that all our other deſires are factitious, and deducible from ſelf-love, alſo; and that many of thoſe which are gratified proceed from a ſelf-love of a groſſer kind. Beſides, ſelf-love is only to be deſtroyed by, and for the ſake of, the love of God, and of our neighbour. Now the ultimate prevalency of theſe is a ſtill ſtronger argument for a future life, in which we may firſt love God, and then our neighbour in and through him.

Fifthly, The pain which attends the child during its birth or paſſage into this world, the ſeparation and death of the *placenta*, by which the child received its nouriſhment *in utero*, with other circumſtances, reſemble what happens at death. Since therefore the child, by means of its birth, enters upon a new ſcene, has new ſenſes, and, by degrees, intellectual powers of perception, conferred upon it, why may not ſomething analogous to this happen at death? Our ignorance of the manner, in which this is to be effected, is certainly no preſumption againſt it; as all who are aware of the great ignorance of man, will readily allow. Could any being of equal underſtanding with man, but ignorant of what happens upon birth, judge beforehand that birth was an introduction to a new life, unleſs he was previouſly informed of the ſuitableneſs of the bodily organs to the external world? Would he not rather conclude, that the child muſt immediately expire upon ſo great a change, upon wanting ſo many things neceſſary to his ſubſiſtence, and being expoſed to ſo many hazards and impreſſions apparently unſuitable? And would not the cries of the child confirm him in all this?

And thus we may conclude, that our birth was even intended to intimate to us a future life, as well as to introduce us into the preſent.

Sixthly, It would be very diſſonant to the other events of life, that death ſhould be the laſt; that the ſcene ſhould conclude with ſuffering. This can ſcarce be reconciled to the beauty and harmony of the viſible world, and to the general prepollency of pleaſure over pain, and ſubſerviency of pain to pleaſure, before-mentioned. All the evils of life, of which we are judges, contribute ſome way to improve and perfect us. Shall therefore the laſt which we ſee, and the greateſt in our apprehenſions, quite extinguiſh our exiſtence? Is it not much more likely, that it will perfect all ſuch as are far advanced, and be a ſuitable correction and preparatory to the reſt? Upon ſuppoſition of a future eternal life, in which our happineſs is to ariſe from the previous annihilation of ourſelves, and from the pure love of God, and of our neighbour, it is eaſy to ſee how death may contribute more to our perfection, than any other event of our lives; and this will make it quite analogous to all the others. But that our lives ſhould conclude with a bitter morſel, is ſuch a ſuppoſition, as can hardly conſiſt with the benevolence of the Deity, in the moſt limited ſenſe, in which this attribute can be aſcribed to him.

Seventhly, All that great *apparatus* for carrying us from body to mind, and from ſelf-love to the pure love of God, which the doctrine of aſſociation opens to view, is an argument that theſe great ends will at laſt be attained; and that all the imperfect individuals, who have left this ſchool of benevolence and piety at different periods, will again appear on the ſtage of a life analogous to this, though greatly different in particular things, in order to reſume and complete their ſeveral remaining taſks, and to be made happy thereby. If we reaſon upon the deſigns of Providence in the moſt pure and perfect manner, of which our faculties are capable, *i. e.* according to the moſt philoſophical analogy, we ſhall be unavoidably led to this concluſion. There are the moſt evident marks of deſign in this *apparatus*, and of power and knowledge without limits every where. What then can hinder the full accompliſhment of the purpoſe deſigned? The conſideration of God's infinite benevolence, compared with the proſpect of happineſs to reſult to his creatures from this deſign, adds great ſtrength to the argument.

Eighthly, Virtue is, in general, rewarded here, and has the marks of the divine approbation; vice, the contrary. And yet, as far as we can judge, this does not always happen; nay, it ſeems to happen very ſeldom, that a good man is rewarded here in any exact proportion to his merit, or a vicious man puniſhed exactly according to his demerit. Now theſe apparent inequalities in the diſpenſations of providence, in ſubordinate particulars, are the ſtrongeſt argument for a future ſtate, in which God may ſhew his perfect juſtice and equity, and the conſiſtency of all his conduct with itſelf. To ſuppoſe virtue in general to be in a ſuffering ſtate, and vice in a triumphant one, is not only contrary to obvious facts, but would alſo, as it appears to me, deſtroy

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all our reaſoning upon the divine conduct. But if the contrary be laid down as the general rule, which is ſurely the language of ſcripture, as well as of reaſon, then the exceptions to this rule, which again both ſcripture and reaſon atteſt, are irrefragable evidences for a future ſtate, in which things will be reduced to a perfect uniformity. Now, if but ſo much as one eminently good or eminently wicked perſon can be proved to ſurvive after the paſſage through the gulph of death, all the reſt muſt be ſuppoſed to ſurvive alſo from natural analogy. The caſe of martyrs for religion, natural or revealed, deſerves a particular conſideration here. They cannot be ſaid to receive any reward for that laſt and greateſt act of obedience.

Ninthly, The voice of conſcience within a man, accuſing or excuſing him, from whatever cauſe it proceed, ſupernatural impreſſion, natural inſtinct, acquired aſſociations, &c. is a preſumption, that we ſhall be called hereafter to a tribunal; and that this voice of conſcience is intended to warn and direct us how to prepare ourſelves for a trial at that tribunal. This, again, is an argument, which analogy teaches us to draw from the relation in which we ſtand to God, compared with earthly relations. And it is a farther evidence of the juſtneſs of this argument, that all mankind in all ages ſeem to have been ſenſible of the force of it.

Tenthly, The general belief of a future ſtate, which has prevailed in all ages and nations, is an argument of the reality of this future ſtate. And this will appear, whether we conſider the efficient or the final cauſe of this general belief. If it aroſe from patriarchal revelations, it confirms the ſcriptures, and conſequently eſtabliſhes itſelf in the manner to be explained under the next propoſition. If it aroſe from the common parents of mankind after the flood, it appears at leaſt to have been an antediluvian tradition. If mankind were led into it by ſome ſuch reaſons and analogies as the foregoing, its being general is a preſumption of the juſtneſs of theſe reaſons. The truth of the caſe appears to be, that all theſe things, and probably ſome others, concurred (amongſt the reſt, apparitions of the dead, or the belief of theſe, dreams of apparitions, and the ſeeming paſſage to and from another world during ſleep, the body being alſo, as it were, dead at the ſame time); and that, as the other parts of the ſimple, pure, patriarchal religion degenerated into ſuperſtition and idolatry, ſo the doctrine of a future ſtate was adulterated with fictions and fables, as we find it among the *Greeks* and *Romans*, and other pagan nations.

As to the *Jews*, their high opinion of themſelves on account of the covenant made with their father *Abraham*, and repeated at *Sinai*, which in its firſt and literal ſenſe was merely temporal, contributed probably to make the more groſs and carnal amongſt them overlook the doctrine of a future ſtate, as atteſted either by reaſon or tradition. But when their captivity by *Nebuchadnezzar*, and other calamities, rendered this world contemptible and bitter to them, many, as the *Phariſees* and *Eſſenes*, had recourſe in earneſt to this great ſource of comfort; whilſt others, adhering ſervilely to the letter of the law, expected only temporal proſperity under a victorious *Meſſiah*. However, it is

not to be doubted, but that, before this, good *Jews*, particularly ſuch as did, or were ready to lay down their lives for the ſake of religion, had the ſupport of this belief; and it appears to me, that there are many things in the Old Teſtament, which both ſhew, that the doctrine of a future ſtate was the current opinion among the *Jews*; and alſo that it was attended with far leſs expectations, than amongſt chriſtians; whence it might eaſily be overlooked and neglected by carnal minds, as above noted. Their hearts were ſet upon temporal proſperity, for themſelves conſidered ſeparately, for their nation, for their poſterity: all which we muſt, however, ſuppoſe to be more ſuitable to their other circumſtances, and to thoſe of the world in general, when the whole of things is taken into conſideration, than if they had had more full and magnificent expectations after death.

As to the final cauſes of the belief of a future ſtate amongſt mankind, if we ſuppoſe, that theſe are either the better regulation of ſtates, and the public happineſs, or the private happineſs of each individual, they would be ſtrong arguments for the divine benevolence, and conſequently for a future ſtate; even though it be ſuppoſed, that the efficient cauſe was only the invention of thoſe men, who ſaw that this doctrine would be uſeful publicly and privately. For God muſt, at leaſt, have permitted this; according to the doctrine of theſe papers, muſt have cauſed it.

But, without entering into this examination of the efficient or final cauſes, we may affirm, that the mere general prevalence of the doctrine of a future ſtate is of itſelf a ſtrong preſumption of its truth. If it be true, it is natural, *i. e.* analogous to other things, to ſuppoſe that we ſhould have ſome general expectation of it, juſt as in other caſes, where we are nearly concerned; alſo that as mankind advance in knowledge and ſpirituality by the advanced age of the world, this doctrine ſhould be more and more opened to them. Now this is the fact; the doctrine of a future ſtate has, from the firſt memory of things in the poſtdiluvian world, been thus perpetually opened more and more. Therefore, *e converſo*, it is probable, that the doctrine itſelf is true.

It may objected to ſome of the arguments here alleged for a future ſtate, that they are applicable to brutes; and therefore that they prove too much. To this we may anſwer, that the future exiſtence of brutes cannot be diſproved by any arguments, as far as yet appears: let therefore thoſe which favour it be allowed their due weight, and only that. There are, beſides thoſe common to all animals, many which are peculiar to man, and thoſe very forcible ones. We have therefore much ſtronger evidence for our own future exiſtence than for that of brutes; which, again, is a thing very analogous to our circumſtances. It is ſomething more than mere curioſity, that makes benevolent perſons concerned for the future welfare of the brute creation; and yet they have ſo much to do nearer home, for themſelves, and their relatives, by way of preparation for a future ſtate, that it would be a great miſuſe of time to dwell upon ſuch foreign ſpeculations.

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The doctrine of tranſmigration may be conſidered as an argument for the future exiſtence of all animals in one view; though a moſt pernicious corruption of the practical doctrine of a future ſtate in another.

It may farther be objected to ſome part of the foregoing reaſoning, that the deſtruction of vegetables in ſo many various ways, that few, relatively ſpeaking, come to perfection, with the many irregularities of the natural world, ſhew that God does not, in fact, bring all his works to perfection. I anſwer, that if vegetable life be not attended with ſenſation (and we do not at all know, that it is), this, with infinite other phænomena of a like kind, may be no irregularity at all. The inanimate world may, according to the preſent conſtitution of things, however irregular that may ſeem to us, ſerve, in the beſt poſſible manner, to promote the happineſs of the animate. We are apt to eſtimate maturity in natural productions according to very narrow relative conſiderations. But, in truth, that herb or fruit is mature, which has anſwered its end in reſpect of animal life, the ſupport, for inſtance, of a peculiar ſet of inſects; and, if the particles of inanimate matter thus paſs through the bodies of vegetables and animals in an endleſs revolution, they may perform all the offices intended by God: or he may have fitted them for infinite other uſes and offices, of which we know nothing.

But if vegetables have ſenſation, which may indeed be a ſpeculation very foreign to us, but is what we cannot diſprove, then vegetables may be provided for in the ſame manner as animals. Or, if we ſuppoſe the argument to fail here, ſtill animals, *i. e.* thoſe allowed by all to be ſo, may live hereafter, though no vegetables do identically, and few according to the ordinary courſe of propagation by their ſeeds or ſhoots: or the argument may fail in reſpect of brute animals, and extend to man alone.

PROP. CLXXXVI.

The Chriſtian Revelation gives us an abſolute Aſſurance of a future State.

That the reader may ſee more fully the degree of evidence afforded by the ſcriptures to this moſt important doctrine, I will here make the following obſervations.

Firſt, then, A future ſtate is the plain and expreſs doctrine of the New Teſtament, in the obvious and literal ſenſe of the words. It reſts therefore upon the authority of the revelation itſelf. Hence all the miracles of Chriſt and his apoſtles, and, by conſequence, of *Moſes* and the prophets, all the prophecies of the ſcriptures, whoſe accompliſhment is already paſt, and viſible to us, become pledges and atteſtations of the truth of this doctrine. We cannot ſuppoſe, that God would have given ſuch powers and evidences, as muſt neceſſarily propagate and eſtabliſh this doctrine, was it not true. For this is the grand, and, as we may ſay, the only doctrine of the New Teſtament, and even of the Old, when interpreted by the New, as it ought to be.

And,

And, as this is the moſt convincing evidence even to philoſophical perſons, ſo it is almoſt the only one which can affect and ſatisfy the vulgar. But indeed what reſource can any man have in things above his capacity, beſides reſting on thoſe who have evidently more power, knowledge, and goodneſs, than himſelf, who have worked miracles, foretold things to come, preached and practiſed righteouſneſs?

All the miracles of both the Old and New Teſtament were performed by Chriſt in effect, *i. e.* by his power and authority. He therefore muſt be able to preſerve us from periſhing utterly; and the predictions of future ſtates in this world, which God gave to him, and he to his ſervant *John* and others, both before and after his coming, ſhew by their accompliſhment, that all his other predictions, and eſpecially the great one of a reſurrection to life eternal, will alſo be accompliſhed in due time.

Secondly, The perſons brought back to life again in the Old and New Teſtaments, and, above all, the reſurrection of Chriſt himſelf, have a great tendency to ſtrengthen the foregoing argument, and to remove all our doubts, fears, and jealouſies, concerning the reality of a future ſtate. The ſame may be ſaid of the hiſtories of *Enoch* and *Elijah*, and of the appearance of *Moſes* and *Elijah* at Chriſt's transfiguration. As there are no footſteps back again from the grave to life, our imagination ſtaggers, and our faith ſtands in need of a ſenſible, as well as a rational ſupport.

Thirdly, The great readineſs of the prophets and apoſtles, and of other good *Jews* and *Chriſtians* after their example, to ſuffer death for the ſake of their religion, is a ſingular comfort and encouragement to us. We are ſure from hence, that they believed a future ſtate themſelves; and they could not but know whether or no they had the power of working miracles, had ſeen Chriſt after his death, had received divine communications, &c. They muſt therefore have been poſſeſſed of theſe undeniable evidences for a future ſtate; they could neither be deceived themſelves in this matter, nor deceive others.

Fourthly, The whole hiſtory and inſtitutions of the *Jewiſh* people, when interpreted by chriſtianity, are types and prophecies of a future ſtate. And here the Old and New Teſtaments confirm and illuſtrate each other in the ſtrongeſt manner: and the Old Teſtament, when interpreted by the New, becomes entirely ſpiritual, and equally expreſſive, with the New, of the doctrine of a future ſtate. It may be obſerved of the *Pſalms* particularly, that the ſpiritual interpretation is to us, in the preſent times, more eaſy and natural upon the whole, than the literal and temporal one.

Fifthly, If we compare what was advanced above, concerning the elementary infiniteſimal body, with the ſcripture doctrine of the reſurrection of the body, and particularly with St. *Paul*'s account of it, 1 *Cor.* xv. there will appear ſuch a harmony and coincidence between the evidences from reaſon, and thoſe from ſcripture, as will greatly confirm both.

PROP.

PROP. CLXXXVII.

The Rewards and Puniſhments of a future Life will far exceed the Happineſs and Miſery of this, both in Degree and Duration.

HERE I will firſt conſider the ſuggeſtions of the light of reaſon; ſecondly, the declarations of the ſcriptures.

Firſt, then, As man appears, according to the light of reaſon, to be in a progreſſive ſtate, it may be conjectured, or even preſumed, that the rewards and puniſhments of a future life will exceed that happineſs and miſery, which are here the natural conſequences of virtue and vice. However, the light of reaſon is not clear and certain in this point: neither can it determine, whether the happineſs and miſery of the next life will be pure and unmixed, or no. It may indeed ſhew, that each man will receive according to his deſerts; but then, ſince there is no pure virtue or vice here, ſince alſo there may be room for both virtue and vice hereafter, the rewards and puniſhments of the next life may ſucceed each other at ſhort intervals, as in the preſent: or, if we adopt the mechanical ſyſtem throughout, then we can only hope and preſume, that God will ultimately make the happineſs of each individual to outweigh his miſery, finitely or infinitely; and ſhall be entirely uncertain, whether or no, at the expiration of this life, we ſhall paſs into another, in like manner, chequered with happineſs and miſery: and thus one of the principal motives to virtue and piety would be loſt.

It is true indeed, that the heathens had their *Elyſium* and *Tartarus*; but then theſe doctrines were probably the corrupted remains of ſome traditionary revelation; and ſo contribute to ſtrengthen the real doctrine of the Scriptures on this head, which I am to ſet forth in the next place.

The ſcriptures then repreſent the ſtate of the good hereafter, as attended with the pureſt and greateſt happineſs; and that of the wicked as being exquiſitely and eternally miſerable. And though the words tranſlated *eternal* and *for ever*, in the Old and New Teſtaments, do not ſeem to ſtand for an abſolute metaphyſical infinity of duration, as we now term it, yet they certainly import a duration of a great relative length, and may import any long period of time, ſhort of an abſolute eternity. The ſcriptures therefore, in their declarations concerning the degree and duration of future rewards and puniſhments, lay before us the ſtrongeſt motives to obedience; ſuch as, if duly conſidered, would rouſe and alarm our hopes and fears, and all our faculties, to the utmoſt; excite to the moſt earneſt prayers; and mortify inſtantly to the things of this world.

Now, though reaſon cannot diſcover this to us, or determine it abſolutely, as juſt now remarked; yet it approves it, when diſcovered and determined previouſly. At leaſt, it approves of the pure and indefinite happineſs of the good and acquieſces in the indefinite

indefinite puniſhment of the wicked. For we always ſeem ready to expect a ſtate of pure holineſs and happineſs from the infinite perfection of the Deity; and yet the preſent mixture of happineſs with miſery, and of virtue with vice, alſo any future degree of vice and miſery, may be reconciled to infinite perfection and benevolence, upon ſuppoſition that they be finally overpowered by their oppoſites: or, if we conſult the dictates of the moral ſenſe alone, without entering into the hypotheſis of mechaniſm, the pure miſery of the wicked, under certain limitations as to degree and duration, may be reconciled to the mercy of God, and will be required by his juſtice. But the moral ſenſe was certainly intended to warn us concerning futurity.

It will not be improper here to remark, that the ſcriptures favour our firſt notions concerning pure virtue and happineſs, by the mention of a paradiſaical ſtate, as the original one, in which man was placed; and by repreſenting our future happineſs, as a reſtoration to this ſtate. They take notice therefore of that greateſt of all difficulties, the introduction of evil into the works of an infinitely benevolent being; and by aſcribing it to ſin, the thing which is moſt oppoſite to God raiſe an expectation, that it muſt be entirely overcome at laſt.

PROP. CLXXXVIII.

It is probable, that the future Happineſs of the Good will be of a ſpiritual Nature; but the future Miſery of the Wicked may be both corporeal and mental.

These are points in which the ſcriptures have not been explicit. It is therefore our duty to beware of vain curioſity, and to arm ourſelves with a deep humility. We are not judges, what degree of knowledge is moſt ſuited to our condition. That there will be a future ſtate at all, has not been diſcovered, with certainty, to a great part of mankind; and we may obſerve in general, that God conceals from us all particular things of a diſtant nature, and only gives us general notices of thoſe that are near; and ſometimes not even ſo much as this, where a peculiar duty, or deſign of providence, requires otherwiſe. However, as we are obliged to read and meditate upon the ſcriptures, to examine our own natures, and to compare them with the ſcriptures, we ſeem authorized to make ſome inquiry into this high and intereſting point.

Now it appears from the foregoing theory, as well as from other methods of reaſoning, that the love of God, and of his creatures, is the only point, in which man can reſt; and that the firſt, being generated by means of the laſt, does afterwards purify, exalt, and comprehend it. In like manner, the ſcriptures place our ultimate happineſs in ſinging praiſes to God, and the Lamb; in becoming one with God, and members of Chriſt, and of each other; which phraſes have a remarkable agreement with the foregoing deductions from reaſon: and we ſeem authorized to conclude from both together, that the future happineſs of the bleſſed will conſiſt in contemplating, adoring,

adoring, and loving God; in obeying his commands; and, by ſo doing, miniſtering to the happineſs of others; rejoicing in it, and being partakers of it.

It ſeems probable alſo, both from ſome paſſages of the ſcriptures, and from the analogy of our natures, that our attachments to dear friends and relations, for whom we are *not to ſorrow as they that have no hope*, and our eſteem and affection for eminently pious perſons in former ages, for *Abraham*, *Iſaac*, and *Jacob*, and *the ſpirits of* other *juſt men made perfect*, will ſtill ſubſiſt on our arrival at the true *mount Sion*, and *the heavenly Jeruſalem*.

It may be conjectured farther, that the glorified body will not be capable of pleaſures that may be called corporeal, in the ſame ſenſe as the preſent bodily pleaſures are; but only ſerve as the eye and ear do to ſpiritual religious perſons, *i. e.* be a mere inſtrument and inlet to the refined pleaſures of benevolence and piety.

Is it not probable, that this earth, air, &c. will continue to be the habitations of the bleſſed? It ſeems to me, that a very wonderful agreement between philoſophical diſcoveries, and the ſcriptures, will appear hereafter. Some inſtances, and many hints, of this agreement may be ſeen in Mr. *Whiſton*'s works. Only let us always remember, that we muſt think and ſpeak upon the things of another world, much more imperfectly than children do concerning the pleaſures, privileges, and occupations of manhood.

With reſpect to the puniſhments of the wicked in a future ſtate, we may obſerve, that theſe may be corporeal, though the happineſs of the bleſſed ſhould not be ſo. For ſenſuality is one great part of vice, and a principal ſource of it. It may be neceſſary therefore, that actual fire ſhould feed upon the elementary body, and whatever elſe is added to it after the reſurrection, in order to burn out the ſtains of ſin. The elementary body may alſo perhaps bear the action of fire for ages, without being deſtroyed, like the *caput mortuum*, or *terra damnata*, of the chemiſts. For this *terra damnata* remains after the calcination of vegetable and animal ſubſtances by intenſe and long continued fires. The deſtruction of this world by fire, ſpoken of both in the ſcriptures, and in many profane writings, the phænomena of comets, and of the ſun and fixed ſtars, thoſe vaſt bodies of fire, which burn for ages, the great quantity of ſulphureous matter contained in the bowels of the earth, the deſtruction of *Sodom* and *Gomorrah* by fire and brimſtone, alluded to in the New Teſtament, the repreſentation of future puniſhment under the emblem of the fire of *Gehenna*, and, above all, the expreſs paſſages of ſcripture, in which it is declared, that the wicked ſhall be puniſhed by fire, even everlaſting fire, confirm this poſition concerning the corporeal nature of future puniſhment, as well as give light to one another.

The ſame conſiderations confirm the long duration of future puniſhment. For if the earth be ſuppoſed to be ſet on fire, either by the near approach of a comet, or by ſome general fermentation in its own bowels, juſt as the deluge was cauſed partly by waters from the heavens, partly by thoſe of the great deep, it may burn for many

revolutions, either in a planetary or a cometary orbit; and theſe may be the *ages of ages*, ſpoken of in the *Apocalypſe*. Farther, if the duration of Chriſt's reign upon earth for a thouſand years be eſtimated, as interpreters have with apparent reaſon eſtimated other durations in the prophetical writings, by putting a day for a year, then will this reign continue for 360,000 years. And ſince it appears to be previous to the puniſhment in the lake of fire, and limited, whereas that puniſhment is to endure *for ages of ages*, that is, for an indefinitely long period of time, one may perhaps conjecture, that this puniſhment is to be of longer duration than the reign of Chriſt upon earth for 360,000 years. But theſe things are mere conjectures. God has not been pleaſed to diſcover the kind, degree, or duration of future puniſhment in explicit terms. However, the ſacred writings concur every where with the voice of reaſon in alarming us to the utmoſt extent of our faculties, leſt we come into that place of torment. The puniſhments threatened to the body politic of the *Jews* have fallen upon it in the heavieſt and moſt exemplary manner. The *Jews*, conſidered as a body politic, have now been in a ſtate of ſuffering, without any interval of relaxation, for almoſt ſeventeen hundred years; during which time they have been like *Cain* the elder brother, who ſlew *Abel*, becauſe he was more righteous than himſelf, and his ſacrifice more acceptable than his own, fugitives and vagabonds over the face of the earth: they have been perſecuted and ſlain every where, having the indelible mark of circumciſion ſet upon them, to which they ſtill adhere moſt tenaciouſly, and which has been a principal means of preventing their apoſtatizing from their own religion, after they grow up to adult age. And this may ſerve as a type and evidence of the certainty and greatneſs of future puniſhment, ſhewing that it will be greater, and more laſting, than human foreſight could poſſibly have conjectured; juſt as their final reſtoration ſeems to preſage the final redemption and ſalvation of the moſt wicked. And therefore, according to that earneſt and affectionate admonition of our Saviour, *He that hath ears to hear, let him hear.*

But if the puniſhments of another world ſhould be corporeal in ſome meaſure, there is ſtill the greateſt reaſon to believe, that they will be ſpiritual alſo; and that by ſelfiſhneſs, ambition, malevolence, envy, revenge, cruelty, profaneneſs, murmuring againſt God, infidelity, and blaſphemy, men will become tormenters to themſelves, and to each other; deceive, and be deceived; infatuate, and be infatuated; ſo as not to be able to repent, and turn to God, till the appointed time comes, if that ſhould ever be.

But we are not to ſuppoſe, that the degree, probably not the duration of future puniſhment, corporeal or mental, will be the ſame to all. It may alſo perhaps be, that there may be ſome alleviating circumſtances, or even ſome admixture of happineſs. Only the ſcriptures do not authorize any ſuch conjectures; and therefore we ought to proceed with the utmoſt caution, leſt we lead ourſelves or others into a fatal miſtake. And indeed, if the happineſs of the bleſſed be pure and unmixed, as the ſcriptures ſeem

to

to declare, and reaſon to hope, then may the miſery of the wicked be unmixed alſo. Nevertheleſs, ſince the goodneſs of God has no oppoſite, analogy does not here require that concluſion.

PROP. CLXXXIX.

It ſeems probable, that the Soul will remain in a State of Inactivity, though perhaps not of Inſenſibility, from Death to the Reſurrection.

Some religious perſons ſeem to fear, leſt by allowing a ſtate of inſenſibility to ſucceed immediately after death, for ſome hundreds, or perhaps thouſands of years, the hopes and fears of another world ſhould be leſſened. But we may affirm, on the contrary, that they would be increaſed thereby. For time, being a relative thing, ceaſes in reſpect of the ſoul, when it ceaſes to think. If therefore we admit of a ſtate of inſenſibility between death and the reſurrection, theſe two great events will fall upon two contiguous moments of time, and every man enter directly into heaven or hell, as ſoon as he departs out of this world, which is a moſt alarming conſideration.

That the ſoul is reduced to a ſtate of inactivity by the depoſition of the groſs body, may be conjectured from its entire dependence upon the groſs body for its powers and faculties, in the manner explained in the foregoing part of this work. It ſeems from hence, that neither the elementary body, nor the immaterial principle, which is generally ſuppoſed to preſide over this, can exert themſelves without a ſet of ſuitable organs. And the ſcriptures of the New Teſtament, by ſpeaking of the reſurrection of the body as ſynonymous to a future life, favour this conjecture. There are alſo many paſſages in the Old Teſtament, and ſome in the New, which intimate death to be a ſtate of reſt, ſilence, ſleep, and inactivity, or even of inſenſibility. However, there are other paſſages of ſcripture, which favour the oppoſite conjecture. It ſeems alſo, that motion, and conſequently perception, may not ceaſe entirely in the elementary body after death; juſt as in the ſeeds of vegetables there is probably ſome ſmall inteſtine motion kept up, during winter, ſufficient to preſerve life, and the power of vegetation, on the return of the ſpring. And thus the good may be in a ſtate of reſt, tranquillity and happineſs, upon the whole rather pleaſant than painful, and the wicked in a contrary ſtate. Some imperfectly good perſons may alſo receive what remains of the neceſſary purification, during the interval between death and the reſurrection. And, upon the whole, we may gueſs, that though the ſoul may not be in an inſenſible ſtate, yet it will be in a paſſive one, ſomewhat reſembling a dream; and not exert any great activity till the reſurrection, being perhaps rouſed to this by the fire of the conflagration. For analogy ſeems to intimate, that the reſurrection will be effected by means ſtrictly natural. And thus every man may riſe in his own order, agreeably to the words of St. *Paul*.

However, let it be remembered, that all our notions concerning the intermediate ſtate are mere conjectures. It may be a ſtate of abſolute inſenſibility on one hand, or of great activity on the other. The ſcriptures are not explicit in this matter, and natural reaſon is utterly unequal to the taſk of determining in it. I have juſt hinted a middle opinion, as being more plauſible perhaps than either extreme. Such inquiries and diſquiſitions may a little awaken the mind, and withdraw it from the magical influences of this world: and, if the children of this world find a pleaſure and advantage in ruminating upon their views and deſigns in it, much more may the children of another world, by making that the ſubject of their meditations and inquiries.

SECT. IV.

OF THE TERMS OF SALVATION.

We have ſeen in the foregoing ſection the greatneſs of the rewards and puniſhments of a future life. Now this is a point of infinite importance to us to be practically and duly conſidered. It is of infinite practical importance to come within the terms of ſalvation at the day of judgment. Though all God's creatures ſhould be made happy at laſt indefinitely, yet ſtill there is in the way in which we do, and muſt, and ought to conceive of theſe things, an infinite practical difference, whether at the reſurrection we enter into the *new Jeruſalem*, and *the kingdom of heaven*, or whether we be caſt into *the lake of fire, whoſe ſmoke aſcendeth up for ever and ever*. Let us inquire therefore, what are the terms of ſalvation after this ſhort life is ended, *i. e.* what degree of purity and perfection is required of us here, in order to be reſcued from the miſeries of another world, and advanced into the glorious manſions of the bleſſed.

PROP. CXC.

It follows from the foregoing Theory of our intellectual Pleaſures and Pains, that the Bulk of Mankind are not qualified for pure unmixed Happineſs.

For the bulk of mankind are by no means ſo far advanced in ſelf-annihilation, and in the love of God, and of his creatures in and through him, as appears, from the tenor of the foregoing obſervations, to be required for the attainment of pure happineſs.

There

There are few, even in chriſtian countries, that ſo much as know what the true religion and purity of the heart is; at leaſt, that attend to it with care and earneſtneſs; and in pagan countries ſtill fewer by far. How exceedingly few then muſt that *little flock* be, whoſe wills are broken and ſubjected to the divine will, who delight in happineſs wherever they ſee it, who look upon what concerns themſelves with indifference, and are perpetually intent upon their Father's buſineſs, in any proper ſenſe of theſe words! And as experience ſhews us, that men are not carried from worldly-mindedneſs to heavenly-mindedneſs, nor advanced from lower degrees of the laſt to higher in general, but by paſſing through pain and ſorrow; ſo there is the greateſt reaſon from the mere light of nature to apprehend, that the bulk of mankind muſt ſuffer after death, before they can be qualified for pure and ſpiritual happineſs. If what we have felt here does not cure us of ſenſuality, ſelfiſhneſs, and malevolence, there is the greateſt reaſon from analogy to apprehend, that ſeverer puniſhments will be applied hereafter for that purpoſe.

PROP. CXCI.

It follows from the Declarations of the Scriptures, that the Bulk of Mankind are not qualified for the Manſions of the Bleſſed.

For, according to the ſcriptures, *the gate that leadeth to life is ſtrait, and there are few who find it*, even though they *ſeek to enter in*. The righteouſneſs of the Scribes and Phariſees, of the formal profeſſors, who yet are no adulterers, extortioners, &c. will not be in any wiſe ſufficient. *Many are called, and* but *few choſen*; and, agreeably hereto, the firſt fruits, which are a ſcripture type of the choſen or elect, are ſmall in compariſon of the lump. In like manner, the *Jews* are few in compariſon of the Gentiles; the one hundred and forty-four thouſand, in compariſon of all the tribes; the *Iſraelites*, in compariſon of all *Abraham*'s ſeed; *Elijah*, and the ſeven thouſand, in compariſon of the prieſts and worſhippers of *Baal*. Thus alſo *Noah*, and his family, alone, were preſerved at the deluge; and of the *Iſraelites* a remnant only is ſaved, whilſt the reſt are rejected. And the reaſon of this ſmallneſs of the elect, the thing here typified, appears from the conditions. For we muſt take up our croſs daily, hate father and mother, and even our own lives; elſe we cannot be Chriſt's diſciples. We cannot ſerve God and *mammon* together. We muſt ſeek the kingdom of God, and his righteouſneſs, firſt; hunger and thirſt after it; and leave all to follow Chriſt. We muſt be born again, *i. e.* have quite new diſpoſitions, and take pleaſure in works of piety and charity, as we formerly did in ſenſual enjoyments, in honour and profit; we muſt be transformed by the renewal of our minds, walk according to the ſpirit, have our hearts in heaven, and do all to the glory of God. We muſt pray always; rejoice in tribulation; count all things as dung in compariſon of the knowledge of Chriſt, and

him

him crucified; clothe the naked, feed the hungry, viſit the ſick, preach the goſpel in all nations. If there be ſtrife or vain-glory, ſchiſms or diviſions, amongſt us, we are ſtill carnal. If there be wrath, clamour, evil ſpeaking, covetouſneſs, we cannot inherit the kingdom of God. If we govern not our tongues, we deceive ourſelves; our religion is vain. The luſt of the fleſh, the luſt of the eye, and the pride of life, are inconſiſtent with the love of the Father, *i. e.* with happineſs, with freedom from tormenting fear. Though we give all our goods to feed the poor, and our bodies to be burnt, even ſuffer martyrdom, it profiteth nothing, unleſs we have that charity, that love, which ſeeketh not her own, but rejoiceth in the truth, &c. *i. e.* unleſs we become indifferent to ourſelves, and love God, and his truth, glory, and goodneſs, manifeſted in his creatures, alone. This world, with the bulk of its inhabitants, is all along in ſcripture repreſented as doomed to deſtruction, on account of the degeneracy, idolatry, wickedneſs, which every where prevail in it. The true *Jews* and chriſtians are a ſeparate people, in the world, not of the world, but hated and perſecuted by it, becauſe they ſhine as lights *in the midſt of a crooked and perverſe generation*, which cannot bear the light, &c. &c. for it would be endleſs to tranſcribe texts to this purpoſe. If a man has but courage to ſee and acknowledge the truth, he will find the ſame doctrine expreſſed or implied in every part of the Bible.

PROP. CXCII.

To apply the foregoing Doctrine, as well as we can, to the real Circumſtances of Mankind.

Here we may obſerve, Firſt, That, leſt the beſt of men, in conſidering the number and greatneſs of their ſins, and comparing them with the purity of the ſcripture precepts, and the perfection of God, ſhould not dare to look up to him with a filial truſt and confidence in him, leſt their hearts ſhould fail, Chriſt our Saviour is ſent from heaven, God manifeſt in the fleſh, that whoſoever believeth in him ſhould not periſh, but have everlaſting life; that, though our ſins be as ſcarlet, they ſhould by him, by means of his ſufferings, and our faith, be made as white as wool; and the great puniſhment, which muſt otherwiſe have been inflicted upon us according to what we call the courſe of nature, be averted. Faith then in Chriſt the righteous will ſupply the place of that righteouſneſs, and ſinleſs perfection, to which we cannot attain.

Secondly, And yet this faith does not make void the law, and ſtrict conditions, above deſcribed; but, on the contrary, eſtabliſhes them. For no man can have this faith in Chriſt, but he who complies with the conditions. To have a ſenſe of our ſins, to be humble and contrite, and in this ſtate of mind to depend upon Chriſt as the mediator between God and man, as able and willing to ſave us, which is true faith, argues ſuch a diſpoſition, as will ſhew itſelf in works. And if our faith falls ſhort of this, if it does not overcome the world, and ſhew itſelf by works, it is of no avail; it is like that of the

the devils, who *believe and tremble*. Men muſt labour therefore after this faith as much as after any other chriſtian grace, or rather as much as after all the others; elſe they cannot obtain it. For it contains all the other chriſtian graces; and we can never know, that we have it, but by our having the chriſtian graces, which are its fruits.

Thirdly, Hence it follows, that a mere aſſurance, or ſtrong perſuaſion, of a man's own ſalvation, is neither a condition, nor a pledge of it. The faith above deſcribed *is*; and ſo are all other chriſtian graces, love, fear, truſt, repentance, regeneration, &c. when duly advanced and improved, ſo as to beget and perfect each other. But there is great reaſon to fear, both from the foregoing theory of the human mind, and from plain experience, that ſuch a ſtrong perſuaſion may be generated, whilſt men continue in many groſs corruptions; and that eſpecially if they be firſt perſuaded, that this ſtrong perſuaſion or aſſurance of ſalvation is a condition and pledge of it, and be of ſanguine tempers. For, if they be of fearful and melancholy ones, a contrary effect may be expected. All this appears from the foregoing theory of aſſent and diſſent. Eager deſires are attended with hope in the ſanguine, the vain-glorious, and the ſelf-conceited; and this hope, as it increaſes, becomes a comfortable aſſurance and perſuaſion, drawing to itſelf by degrees the inward ſentiments, that attend upon aſſent. On the contrary, eager deſires in the ſcrupulous, ſuperſtitious, and dejected, end in fear and diſſent. But if this dejection ſhould paſs into the oppoſite ſtate, then the anxious diffidence may at once, as it were, paſs into its oppoſite, a joyful perſuaſion.

But the chief thing to be obſerved here is, that the ſcriptures no where make an aſſurance of ſalvation the condition or pledge of it. Unleſs therefore it could be ſhewn to be included in faith, love, fear, and other ſcriptural conditions, the doctrine of aſſurance, as it ſeems to be taught by ſome perſons, cannot be juſtified by the ſcriptures. But all the chriſtian graces may exiſt without an explicit aſſurance of, or even reflection upon, a man's own ſalvation; and fear, in particular, does not admit of this aſſurance. At the ſame time it ought to be remembered, that all acts of faith, love, truſt, gratitude, exerciſed towards God, leave peace and comfort in the mind; and that the frequent meditation upon the joys of another life, as our hope and crown, will excite us powerfully to obedience. We ought therefore to labour and pray moſt earneſtly for the perpetual increaſe of the hope of ſalvation; yet waiting patiently for it, if it ſhould be delayed through bodily indiſpoſition, or any other cauſe.

Fourthly, If it be aſked, where the privilege and advantage of faith lies, ſince works are neceſſary alſo, according to the foregoing account of it; I anſwer, Firſt, That the righteouſneſs and ſufferings of Chriſt, with our faith in them, are neceſſary to ſave us from our ſins, to enable us to perform our imperfect righteouſneſs; and, Secondly, That faith is propoſed by the ſcriptures as the means appointed by God for rendering imperfect righteouſneſs equivalent, in his ſight, to perfect, and even of transforming it into perfect, as ſoon as we are freed from that body of fleſh and death, which wars againſt the law of our minds. And, as faith thus improves righteouſneſs, ſo every degree

degree of righteouſneſs is a proportional preparative for faith; and, if it does not produce faith, will end in ſelf-righteouſneſs, and *Satanical* pride.

Fifthly, If it be alleged, in favour of the doctrine of juſtification by faith alone, and excluſively of works, that if the greateſt ſinner ſhould, in the midſt of his ſins and impieties, ſtop at once, and, with a deep ſenſe of them, earneſtly deſire forgiveneſs of God through Chriſt, firmly believing in him as his ſaviour, we cannot ſuppoſe, that God would reject him; I anſwer, that this deep ſenſe of ſin, this earneſt prayer, and firm belief, are things not to be attained in a ſhort ſpace of time, according to the uſual courſe of nature. A ſinner cannot be ſtopped at all in the career of his ſins, but by ſuffering; and there may indeed be a degree of ſuffering ſo great, as to work the due contrition in any given ſhort interval of time, according to the courſe of nature. But it does not appear from experience, that an effectual reformation is generally wrought in great ſinners by common calamities, not even by very ſevere ones; though the ſuffering, one may hope, is not loſt; but will here or hereafter manifeſt its good effects. However, ſome few there are, who, recovering from a dangerous ſickneſs, or other great affliction, ſhew that their change of mind was of a permanent nature; that they were made *new creatures*; and that they had a real practical faith, ſufficient to overcome the world, generated in them. Now, ſuch a faith, though it have not time to evidence itſelf by works, will undoubtedly be accepted by God; ſince he knows, that time alone is wanting.

Sixthly, It will be aſked then, What are we to do for thoſe unhappy perſons, who have neglected to make uſe of the means of grace in due time, and who are ſeized by ſome fatal diſeaſe in the midſt of their ſins? I anſwer, that we muſt exhort them to ſtrive to the utmoſt, to pray that they may pray with faith, with earneſtneſs, with humility, with contrition. As far as the dying ſinner has theſe graces, no doubt they will avail him, either to alleviate his future miſery, or to augment his happineſs. And it ſeems plainly to be the doctrine of the ſcriptures, that all that can be done, muſt be done in this life. After death we enter into a moſt durable ſtate of happineſs or miſery. We muſt here, as in all other caſes, leave the whole to God, who judgeth not as man judgeth. Our compaſſion is as imperfect and erroneous, as our other virtues, eſpecially in matters where we ourſelves are ſo deeply concerned. The greateſt promiſes are made to fervent prayer. Let therefore not only the dying perſon himſelf, but all about him, who are thus moved with compaſſion for him, fly to God in this ſo great diſtreſs; not the leaſt devout ſigh or aſpiration can be loſt. God accepts the widow's mite, and even a cup of cold water, when beſtowed upon a diſciple and repreſentative of Chriſt. And if the prayer, love, faith, &c. either of the ſinner himſelf, or of any one elſe, be ſufficiently fervent, he will give him repentance unto ſalvation. But how ſhall any of us ſay this of ourſelves? This would be to depend upon ourſelves, and our own abilities, inſtead of having faith in Chriſt alone.

Theſe

Theſe awakening conſiderations may be thought to lead to deſpair. But the deſpair ariſing from them appears to be infinitely ſafer, than that enthuſiaſtic faith, or rather preſumption, which is ſometimes the conſequence of the doctrine of juſtification by faith alone. If indeed a man's deſpair ſhould make him neglect God in his laſt moments, put away the thoughts of his ſins, and harden himſelf in a careleſs ſtupidity with reſpect to his future condition, this would be the worſt ſtate on this ſide the grave. But it is evident, that the foregoing conſiderations, have no ſuch tendency. Where a man is ſo terrified, that, like *David*, his heart fails him, or, like the publican, he dares not look up; that he does not think himſelf worthy of the high title of the child of God, or of admiſſion into the kingdom of heaven, all theſe emotions, all the agonies of this kind of deſpair, have a great tendency to better him, to purify and perfect him, to humble him, to break his ſtubborn will; and, though he ſhould not be able to pray but by the *groanings that are unutterable*, God, who knows the mind of the ſpirit, which is now working in him *a repentance not to be repented of*, *i. e.* if theſe groanings be ſufficiently earneſt, will accept him. If they fall ſhort of the goſpel terms, whatever theſe be, he will, however, be beaten with fewer ſtripes. And it muſt be remembered, that the queſtion is not whether a man ſhall die here in apparent peace, ſo as to comfort the friends and by-ſtanders under their alarming ſenſe of fear for themſelves, and compaſſion for him, but whether he ſhall awake in joy or torment. The deſpair, which ariſes from a fear, leſt our remaining diſpoſition to ſin be ſo great, our faith and love ſo weak, and our prayer ſo languid, as that we do not come up to the goſpel terms, is no offence againſt the divine goodneſs. We are to eſtimate this goodneſs in its particular manifeſtations by God's promiſes alone; and to do otherwiſe, would be to open a door to all wickedneſs, and lead ourſelves into the moſt fatal miſtakes. The ſcriptures declare in the moſt expreſs terms, that works are neceſſary to ſalvation. Faith is never ſaid to be effectual, when not attended by works; but, on the contrary, the true faith is emphatically characterized by its producing works. This faith is itſelf a work, as much as any other, the cauſe and the effect of the others, all proceeding from one univerſal cauſe through Chriſt. How then can we flatter ourſelves, that a mere ſtrong perſuaſion or aſſurance of ſalvation, of the application of Chriſt's merits to a man's ſelf in particular, will be of any avail? Eſpecially ſince it is evident, from the nature of the mind, that ſuch a perſuaſion may be generated in a wicked man; and alſo from experience, that it is ſometimes found in ſuch.

I have here endeavoured to treat this moſt important ſubject with the greateſt fidelity, and regard to truth. God's ways are indeed infinitely above our ways, *i. e.* infinitely more merciful in reality, ultimately, than we can expreſs or conceive. But all the threatenings of the ſcriptures have been fulfilled hitherto, as well as the promiſes. *There is no peace to the wicked.* The faith, which removeth mountains, availeth nothing without charity. *Not he that ſaith unto* Chriſt, *Lord, Lord*, *i. e.* merely applies to him

for mercy and aſſiſtance, *but he that doth the will of* God, *ſhall enter into the kingdom of heaven.* And we muſt not, we cannot, explain away theſe expreſs paſſages.

As in the body, ſo in the mind, great and laſting changes are ſeldom wrought in a ſhort time; and this the hiſtory of aſſociation ſhews to be the neceſſary conſequence of the connection between body and mind. And yet he who made the blind to ſee, the lame to walk, the deaf to hear, the lepers clean, and the maimed whole, by a word, can as eaſily perform the analogous things, the antitypes, in the mind. But then it is to be obſerved, that the bodily changes by miracles were not made by our Saviour, except in conſequence of previous changes in the mind. And thus indeed *to him that hath ſhall be given, and he ſhall have more abundantly.* Love, faith, fear, prayer, will carry men on in a very rapid progreſs. But then the work of regeneration is already advanced in them. It is of infinite conſequence not to lay a ſtumbling-block, or rock of offence, in our own way, or in that of other's; not to *break the leaſt commandment, or teach others ſo to do.* Let us *not be deceived, God is not mocked; what a man ſoweth, that ſhall he alſo reap. Indignation and wrath, tribulation and anguiſh,* muſt come *upon every ſoul of man that does evil, upon every child of diſobedience.*

Seventhly, It follows from the purity of the ſcripture precepts, that even the better ſort of chriſtians may be under conſiderable uncertainties as to their own ſtate; and that in many caſes, as a man grows better, and conſequently ſees more diſtinctly his own impurity, he will have greater fears for himſelf, and perhaps think, that he grows worſe. Now the final cauſe of this is undoubtedly, that we may make our calling and election ſure, and leſt he that thinketh he ſtandeth ſhould fall. And yet, as wicked perſons, let them endeavour ever ſo much to ſtupefy themſelves, muſt have frequent forebodings of the judgment that will be paſt upon them at the laſt day; ſo good perſons will generally have great comforts in the midſt of their ſorrows. The ſcripture promiſes are ſo gracious and unlimited, the precepts for loving God, and rejoicing in him, ſo plain and expreſs, and the hiſtories of God's mercies towards great ſinners, and the great ſins of good men, are ſo endearing, that whoever reads and meditates upon the ſcripture daily, will find *light ſpring up* to him *in the midſt of darkneſs; will hope againſt hope, i. e.* will hope for the mercy of God, though he has the greateſt doubts and fears in relation to his own virtue, faith, love, hope; and fly to him, as his father and ſaviour, for that very reaſon. This will beget earneſt and inceſſant prayer, a perpetual care not to offend, and a reference of all things to God. When ſuch a perſon ſurveys his own actions, and finds that he does in many inſtances of thought, word, and deed, govern himſelf by the love and fear of God, by a ſenſe of duty, by the goſpel motives of future reward and puniſhment, &c. theſe are to him evident marks, that the ſpirit of God works with his ſpirit; he is encouraged to have confidence towards God; and this confidence ſpurs him on to greater watchfulneſs and earneſtneſs, if he does not dwell too long upon it. When, on the other hand, he finds many unmortified deſires, and many failings in his beſt words and actions, with ſome groſs neglects perhaps, or even

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ſome commiſſions, this terrifies and alarms him; adds wings to his prayers, and zeal to his endeavours. And it is happy for us, in this world of temptations, to be thus kept between hope and fear. Not but that very good perſons, who have been conſtant and earneſt for a long courſe of time, who have paſſed through ſevere trials, who live, as the firſt chriſtians did, in perpetual apprehenſions of ſufferings and death, or who, like their bleſſed Lord and Maſter, go about doing good, and preaching the goſpel to the poor, may be always favoured with the ſight of the promiſed land; and ſeveral of theſe may date the riſe of this happy ſtate from ſome remarkable point in their lives. But there is great danger of being impoſed upon here by the wonderful ſubtlety of the natural operations of the mind. When a man begins to fancy, that an inward ſentiment, much or long deſired by him, ſuch as the aſſurance of his ſalvation, has happened or will happen to him, this impoſes upon his memory by imperceptible degrees in one caſe; and begets the ſentiment itſelf, the aſſurance, in the other. Such a factitious aſſurance can therefore be no evidence for itſelf. It is a mental affection, of the ſame kind with the reſt; and can leſs be depended upon, as a teſt, than plain actions. Mere ideas, and internal feelings, muſt be leſs certain marks of the prevailing, permanent diſpoſition of our hearts, than the tenor of our actions, which is the natural and neceſſary fruit of it. And we ought to judge of ourſelves by our fruits, as well as of thoſe who pretend to be prophets. *A good tree cannot bring forth evil fruit, nor an evil tree good fruit.* Here we may lay our foundation, as upon a rock. When indeed this perſuaſion, or aſſurance, is the reſult of an earneſt impartial examination into our fruits, and of our conſcience not condemning us, it may reaſonably afford confidence towards God; becauſe our conſcience was intended by God to inform us of our ſtate; as appears both from ſcripture and reaſon. But a conſtant abſolute aſſurance, *i. e.* appearance thereof (for it can be no more, till we have eſcaped all the hazards of this life, and our judge has paſſed his ſentence upon us in another), may be dangerous even to good men, and render them by inſenſible degrees ſecure, neglectful of neceſſary duties, and ſelf-conceited. However, ſince a hope, free from all anxious fears, ſeems to be often given by God as a comfort in great trials, and a reward for behaving well under ſuch, and perſevering faithfully, as I obſerved juſt now; we have the greateſt encouragement to do and to ſuffer every thing that God requires of us, to be *fervent in ſpirit, ſerving the Lord,* to *watch and pray always,* &c. ſince we may expect to obtain this hope thereby, and in it an hundred fold for all that we give up in this world, as well as everlaſting life in the world to come.

And though it be proper to comfort religious perſons under bodily or mental diſorders, which fill their minds with diſproportionate fears and ſcruples, by informing them, that a ſolicitude about our ſalvation is the ſure means of obtaining it; that this affliction is to be endured with patience, and confidence in God, as much as any other; that it is attended with the ſame advantages as common afflictions, and alſo with ſome peculiar to itſelf, ſuch as putting us upon a thorough examination of

our hearts; and that this ſevere chaſtening in the preſent world is the ſtrongeſt mark, that we are loved by God, and therefore ſhall be ſaved in the world to come; yet the ſame perſons are to be admoniſhed, that a great degree of fearfulneſs and ſcrupuloſity often proceeds from ſome ſelf-deceit and prevarication at the bottom. There is probably ſome ſecret ſin, ſome ſin that circumvents them more eaſily and frequently than the reſt, of which they may not perhaps be fully aware, and yet about which they have great ſuſpicions and checks, if they would hearken to them fully and fairly. They ought therefore, with all earneſtneſs and honeſty, to deſire God to try and examine them, and to ſeek the ground of their hearts; and, in conſequence of this prayer, to ſet about it themſelves in the preſence of God. And if this be neceſſary for the ſcrupulous and feeble-minded, even for the children of God, how much more for the careleſs, voluptuous, profane world! How ought they to be alarmed and exhorted to hear the voice of wiſdom in the preſent life, during *the accepted time, leſt fear come upon them as deſolation, and deſtruction as a whirlwind!*

Laſtly, We may obſerve, that as undue confidence leads to ſecurity, and conſequently to ſuch ſins, as deſtroy this confidence, unleſs we be ſo unhappy, as to be able to recal the internal feeling of this confidence without ſufficient contrition; and as the diſproportionate fearfulneſs, which is its oppoſite, begets vigilance, and thus deſtroys itſelf alſo; whence perſons in the progreſs of a religious courſe are often paſſing from one extreme to another; ſo it is difficult for ſerious perſons, in thinking or ſpeaking about the terms of ſalvation, to reſt in any particular point; they are always apt to qualify the laſt deciſion, whatever it be, either with ſome alarming caution, or comfortable ſuggeſtion, leſt they ſhould miſlead themſelves or others. This is part of that obſcurity and uncertainty, which is our chief guard and ſecurity in this ſtate of probation, and the *daily bread* of our ſouls. Let me once more add this neceſſary obſervation, viz. that future eternal happineſs is of infinitely more weight than preſent comfort; and therefore that we ought to labour infinitely more after purity and perfection, than even after ſpiritual delights. We are only upon our journey through the wilderneſs to the land of *Canaan*; and, as we cannot want manna from day to day for our ſupport, it is of little concernment, whether we have more delicious food. Let us therefore *hunger and thirſt after righteouſneſs* itſelf; that ſo we may firſt *be filled* with it, and afterwards, in due time, may obtain that *eternal weight of glory*, which will be the reward of it.

SECT.

SECT. V.

OF THE FINAL HAPPINESS OF ALL MANKIND IN SOME DISTANT FUTURE STATE.

PROP. CXCIII.

It is probable from Reaſon that all Mankind will be made happy ultimately.

For, Firſt, It has been obſerved all along in the courſe of this work, that all the evils that befal either body or mind in this ſtate, have a tendency to improve one or both. If they fail of producing a peculiar, appropriated intermediate good effect, they muſt, however, neceſſarily contribute to the annihilation of that *ſelf*, carnal or ſpiritual, groſs or refined, which is an inſuperable bar to our happineſs in the pure love of God, and of his works. Now, if we reaſon at all concerning a future ſtate, it muſt be from anologies taken from this; and that we are allowed to reaſon, that we are able to do it with ſome juſtneſs, concerning a future ſtate, will appear from the great coincidence of the foregoing natural arguments for a future ſtate, and for the rewards and puniſhments of it, with what the ſcriptures have delivered upon the ſame heads; alſo becauſe a ſimilar kind of reaſonings in reſpect of the future ſtates, which ſucceed in order from infancy to old age, is found to be juſt, and to afford many uſeful directions and predictions. We ought therefore to judge, that the evils of a future ſtate will have the ſame tendency, and final cauſe, as thoſe of this life, viz. to meliorate and perfect our natures, and to prepare them for ultimate unlimited happineſs in the love of God, and of his works.

Secondly, The generation of benevolence, by the natural and neceſſary tendency of our frames, is a ſtrong argument for the ultimate happineſs of all mankind. It is inconſiſtent to ſuppoſe, that God ſhould thus compel us to learn univerſal unlimited benevolence; and then not provide food for it. And both this and the foregoing argument ſeem concluſive, though we ſhould not take in the divine benevolence. They are both ſupported by the analogy and uniformity apparent in the creation, by the mutual adaptations and correſpondencies of things exiſting at different times, and in different places: but they receive much additional force from the conſideration of the goodneſs of God, if that be firſt proved by other evidences; as they are themſelves the ſtrongeſt evidences for it, when taken in a contrary order of reaſoning.

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And as the benevolence of one part of the creation is thus an argument for the happineſs of the other; ſo, ſince benevolence is itſelf happineſs, a tendency to learn it in any being is alſo an argument for his own happineſs. And, upon the whole, ſince God has commanded his beloved ſons, the good, to love and compaſſionate every being, that comes within their cognizance, by the voice of their natures ſpeaking within them, we cannot ſuppoſe, that theſe his favourites (to ſpeak according to preſent appearances, and our neceſſary conceptions, which with this caution is juſtifiable) will fail of their proper reward in the gratification of this their benevolence.

Thirdly, The infinite goodneſs of God is an argument for the ultimate happineſs of all mankind. This appears without any particular diſcuſſion of this attribute. But it may not be amiſs for the reader juſt to review the evidences for it above exhibited, and their tendency to prove the ultimate happineſs of all God's creatures.

Fourthly, The infinite happineſs and perfection of God is an argument for, and, as it were, a pledge of, the ultimate happineſs and perfection of all his creatures. For theſe attributes, being infinite, muſt bear down all oppoſition from the quarters of miſery and imperfection. And this argument will be much ſtronger, if we ſuppoſe (with reverence be it ſpoken!) any intimate union between God and his creatures; and that, as the happineſs of the creatures ariſes from their love and worſhip of God ſo the happineſs of God conſiſts, ſhews itſelf, &c. (for one does not know how to expreſs this properly) in love and beneficence to the creatures. As God is preſent every where, knows and perceives every thing, he may alſo, in a way infinitely ſuperior to our comprehenſion, feel every where for all his creatures. Now, according to this, it would ſeem to us, that all muſt be brought to ultimate infinite happineſs, which is, in his eye, preſent infinite happineſs.

Fifthly, The impartiality of God, in reſpect of all his creatures, ſeems to argue, that, if one be made infinitely happy upon the balance, all will be made ſo. That benevolence, which is infinite, muſt be impartial alſo; muſt look upon all individuals, and all degrees of happineſs, with an equal eye; muſt ſtand in a relation of indifference to them all. Now this is really ſo, if we admit the third of the foregoing ſuppoſitions concerning the divine benevolence. If all individuals be at laſt infinitely happy upon the balance, they are ſo at preſent in the eye of God, *i. e.* he is perfectly impartial to all his creatures. And thus every intermediate finite degree of miſery, how great ſoever, may be conſiſtent with the impartiality of God. But to ſuppoſe, before the creatures *A* and *B* exiſted, that *A* was made by God to be eternally happy, and *B* made to be eternally miſerable, ſeems as irreconcileable to God's impartiality, as to his benevolence. That both ſhould be made for eternal and infinite happineſs, one to enjoy it in one way, the other in another, one by paſſing through much pain, the other by paſſing through little or perhaps none, one by an acceleration in one period of his exiſtence, the other in another, &c. &c. is perfectly conſiſtent with God's impartiality; for, the happineſs of each being infinite at preſent in the eye of God, his eye muſt

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regard them equally. And, even in the eye of finite beings, if *A*'s happineſs ſeems leſs than *B*'s, in one reſpect, becauſe *A* paſſes through more pain, it may ſeem greater in another, becauſe he arrives at greater degrees of it in leſs time. But this is all appearance. Different finite beings form different judgments according to their different experiences, and ways of reaſoning. Who therefore ſhall be made the ſtandard? Not the inferior orders certainly. And, if the ſuperior, we ſhall not be able to reſt, till we conclude, that all that appears to all finite beings, is falſe and deluſive; and that the judgment of the infinite being is the only true real judgment Now I have endeavoured to ſhew, according to the method of ultimate ratios, how, allowing the third ſuppoſition concerning the divine goodneſs, all individuals are equally happy in the eye of God. And thus the impartiality of God is vindicated, according to the truth and reality of things, in the judgment of his own infinite underſtanding.

Sixthly, All the foregoing reaſoning ſeems to be ſomewhat more ſhort and clear upon the hypotheſis of mechaniſm; but it is not invalidated by that of free-will. For free-will muſt be conſidered as the production of infinite power, and therefore as being ſuited to the reſt of the divine attributes, his benevolence, happineſs, and impartiality, and to all the methods, by which God conducts men to benevolence and happineſs. Or, if the hypotheſis of free-will be a bar to the foregoing reaſonings in their full extent, it cannot, however, account for miſery upon the whole, much leſs for eternal miſery. To ſuppoſe that God wills and deſires the happineſs of all his creatures, and yet that he has given them a power, by which many of them will, in fact, make themſelves eternally miſerable, alſo that he foreſees this in general, and even in each particular caſe, is either to ſuppoſe God under ſome fatal neceſſity of giving ſuch a power; or elſe to take away his unlimited benevolence in reality, after that it has been allowed in words. If therefore God has given men free-will in ſuch a meaſure, as that they may bring upon themſelves finite miſery thereby in the preſent ſtate, or in any future intermediate one, we muſt, however, ſuppoſe it to be ſo reſtrained, as that it ſhall not occaſion infinite and eternal miſery. *The cauſe of the cauſe is alſo the cauſe of the thing cauſed*; which is ſurely as evident in the application of it to the preſent ſubject, as in any other inſtance, where it can be applied.

Seventhly, There are many obvious and undeniable arguments, taken from the relative attributes of God, which firſt exclude the eternal miſery of his creatures, and then eſtabliſh their ultimate happineſs by neceſſary, or, at leaſt, by probable conſequence. Thus the whole tenor of nature repreſents God to us as our creator, preſerver, governor, friend, and father. All ages and nations have fallen into this language; and it is verified every day by the wonderful beauty, harmony, and beneficence, manifeſted in the works of the creation, and particularly in the exquiſite make of our bodies and minds. Shall then a Creator, who is a friend and father, create for eternal infinite miſery? Can any intermediate ſuppoſitions, free-will, perverſeneſs, reprobateneſs,

reprobateneſs, &c. reconcile and unite extremes ſo utterly diſcordant? Will he preſerve an exiſtence, which ceaſes to afford happineſs, and can now only produce miſery without end? Will not the governor and judge of all the earth do right? In whatever manner ſin be eſtimated, it muſt be finite, becauſe it is the work of a finite mind, of finite principles and paſſions. To ſuppoſe therefore a ſinner to be abſolutely condemned to infinite irreverſible miſery, on account of the finite ſins of this life, ſeems moſt highly injurious to the juſtice of God. And to ſay, that this infinite irreverſible miſery is not merely the conſequence of the ſins of this life, but alſo of thoſe to be committed in another, is to give a power of repenting, and becoming virtuous, as well as of ſinning, in another life; whence the ſentence might be reverſed, contrary to the ſuppoſition.

The worſt man of thoſe who go to heaven, and the beſt of thoſe who go to hell, ſeem to us, if we will reaſon upon theſe ſubjects, as we do upon others, to differ but by an infiniteſimal difference, as one may ſay; and yet the reward of the firſt, being eternal, however ſmall in each finite portion of time, muſt at laſt become infinite in magnitude; and the puniſhment of the laſt in like manner. There would therefore be a double infinite difference in the reward and puniſhment, where the virtue and vice, cauſing theſe reſpectively, have only an infinitely ſmall one. To ſay, that, in ſuch caſes, the rewards and puniſhments of another life may be ſo conducted by a mixture of happineſs and miſery in each, as that the balance ſhall not become ultimately infinite in either, is to take away all hopes and fears relating to a future ſtate, *i. e.* morally and practically to take away the ſtate itſelf.

Again, can it be ſuppoſed, that an infinitely merciful Father will caſt off his ſon utterly, and doom him to eternal miſery, without farther trials than what this life affords? We ſee numberleſs inſtances of perſons at preſent abandoned to vice, who yet, according to all probable appearances, might be reformed by a proper mixture of correction, inſtruction, hope, and fear. And what man is neither able nor willing to do, may and muſt, as ſhould ſeem, be both poſſible to God, and actually effected by him. He muſt have future diſcipline of a ſeverer kind for thoſe whom the chaſtiſements of this life did not bring to themſelves. Yet ſtill they will all be fatherly chaſtiſements, intended to amend and perfect, not to be final and vindictive. That the bulk of ſinners are not utterly incorrigible, even common obſervation ſhews; but the hiſtory of aſſociation makes it ſtill more evident; and it ſeems very repugnant to analogy to ſuppoſe, that any ſinners, even the very worſt that ever lived, ſhould be ſo, ſhould be hardened beyond the reach of all ſuffering, of all ſelfiſhneſs, hope, fear, good-will, gratitude, &c. For we are all alike in kind, and do not differ greatly in degree here. We have each of us paſſions of all ſorts, and lie open to influences of all ſorts; ſo as that the perſons *A* and *B*, in whatever different proportions their intellectual affections now exiſt, may, by a ſuitable ſet of impreſſions, become hereafter alike.

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Theſe and many ſuch like reaſonings muſt occur to attentive perſons upon this ſubject, ſo as to make it highly unſuitable to the benevolence of the Deity, or to the relations which he bears to us, according to the mere light of nature, that infinite irreverſible miſery, to commence at death, ſhould be the puniſhment of the ſins of this life. And, by purſuing this method of reaſoning, we ſhall be led firſt to exclude miſery upon the balance, and then to hope for the ultimate unlimited happineſs of all mankind.

PROP. CXCIV.

It is probable from the Scriptures, that all Mankind will be made ultimately happy.

In conſidering the doctrine of the ſcriptures upon this head, it will firſt be requiſite to ſhew, that the texts alleged to prove the abſolutely eternal and irreverſible miſery of the wicked in another life, may juſtly be interpreted in a different ſenſe.

Now the *Greek* words tranſlated *eternal*, *everlaſting*, and *for ever*, in the New Teſtament, do not by derivation ſtand for an abſolute eternity, neither are they always uſed in this ſenſe in the New Teſtament, the *Septuagint*, or pagan authors. The ſame may be ſaid of the correſponding *Hebrew* words. It is true indeed, that they generally repreſent a long duration; and this is ſometimes limited by the context, or nature of the ſubject, ſometimes not. Now, according to this interpretation, the puniſhments of the wicked will be of great duration, ſuppoſe of one or more long ages or diſpenſations. But one might rather conclude from the words of the original, if their derivation be conſidered, that they will end at the expiration of ſome ſuch long period, than that they will be abſolutely eternal.

If it be ſaid, that the eternity of God is expreſſed by the ſame words; I anſwer, that here the nature of the ſubject gives a ſenſe to the words, whereof they are otherwiſe incapable. It may be urged in like manner, that the duration of future rewards is expreſſed by the ſame words; but then the abſolute eternity of this duration is not perhaps deducible at all from theſe or any other words. We muſt in this entirely refer ourſelves to the bounty and benevolence of our Creator, and depend upon him for all our expectations. Beſides, the nature of the ſubject differs widely here. To ſuppoſe the miſery of the wicked to be, in every reſpect, equal and parallel to the happineſs of the good, is quite contrary to the general tenor of the ſcriptures; and looks like ſetting up the *Manichean* doctrine of two oppoſite infinite principles, a doctrine every where condemned in effect, though not in expreſs words, both by the Old and New Teſtament. We may add, that the happineſs of the good is alſo denoted in ſcripture by incorruption, indiſſolubility, &c. as well as by the words applied to the puniſhments of the wicked.

The words of our Saviour, *where their worm dieth not, and their fire is not quenched*, are thought by ſome to be a ſtrong argument for the abſolute eternity of future

puniſhment. But as theſe words are taken from *Iſaiah*, and allude to the puniſhment of the malefactors, whoſe carcaſes were ſuffered to rot upon the ground, or burnt in the valley of *Hinnom*, they appear to be too popular and figurative to juſtify ſuch an interpretation. And yet they ſeem plainly intended to declare the very long duration of future puniſhment; and that, as the worms, which feed upon a putrefied body, or the fire, which burns it in this world, do themſelves come to a certain and known period, the miſery of another world, and the fire of hell, will have no definite one; but continue till they have conſumed the ſin and guilt which feed them. In this way of interpretation, the paſſage under conſideration would agree with that concerning the *payment of the laſt farthing*.

Our Saviour's expreſſion concerning *Judas*, viz. *that it had been good for him, that he had not been born*, cannot indeed be alleged for the proof of the eternity of future puniſhment; but it ſeems to oppoſe the ſuppoſition of the ultimate happineſs of all. However, this expreſſion may be popular and proverbial; or it may perhaps denote, that his laſt agonies, or his ſufferings in another world, ſhould outweigh all his preceding happineſs, or ſome way admit of an interpretation conſiſtent with the propoſition under conſideration. For it does not appear to be ſufficiently clear and preciſe for an abſolute diſproof of it. We may add, that as every man, who at his death falls ſhort of the terms of ſalvation, whatever theſe be, *crucifies the Son of God afreſh*, according to the language of St. *Paul*; ſo he will have reaſon, according to his then neceſſary conceptions, to wiſh with *Judas*, that he had never been born. *O that they were wiſe, that they underſtood this, that they would conſider their latter end!*

Now, as the words of the New Teſtament do not neceſſarily infer the abſolute eternity of puniſhment; ſo the general tenor of reaſoning there uſed, with numberleſs paſſages both of the Old and New Teſtaments, concerning the mercy of God, his readineſs to forgive, &c. favour the contrary opinion. And this is a farther reaſon for interpreting theſe texts of an indefinitely long duration only; and that eſpecially if the ſmall number of them, and the infinite importance of the doctrine, which they are ſuppoſed to contain, be alſo taken into conſideration.

To the ſame purpoſe we may obſerve, that there is nothing in all St. *Paul*'s Epiſtles, from whence the abſolute eternity of future puniſhment can be at all inferred, except the words, *everlaſting deſtruction from the preſence of our Lord*, 2 Theſſ. i. 9. though the Epiſtles to the *Romans* and *Hebrews* are both of them general ſummaries of the chriſtian religion, and though he ſpeaks in both of future puniſhment. In the Epiſtle to the *Romans*, he ſays, *tribulation and anguiſh* (not eternal tribulation) ſhall be *upon every ſoul of man, that doth evil*; alſo that the *wages of ſin is death*, not eternal death, or eternal puniſhment; *whereas the gift of God is eternal life*. In the Epiſtle to the *Hebrews*, he aſks, of how much ſorer puniſhment than temporal death, an apoſtate is to be thought worthy? Which ſeems not likely for him to do, had he believed it eternal. In like manner, there is nothing of this kind in St. *Luke*'s Goſpel, or his *Acts of the Apoſtles*, in St. *John*'s

St. *John*'s Goſpel, or his Epiſtles, or in the Epiſtles of St. *James*, St. *Peter*, or St. *Jude*. And yet good men now, who believe the eternity of puniſhment, ſcarce ever fail to inſiſt upon it moſt earneſtly in their diſcourſes and exhortations. For, if it be a doctrine of the chriſtian religion, it is ſo eſſential a one, as that it could not have been omitted by any inſpired writer, nor fail to have been declared in the moſt expreſs terms, which certainly cannot be ſaid of any of the texts alleged to prove the eternity of puniſhment. The words tranſlated *eternal*, and *for ever*, muſt have been ambiguous to the *Jews*, *i. e.* to the firſt chriſtians; and the figurative expreſſion, *their worm dieth not*, &c. is far leſs determinate than many phraſes, which our Saviour might have choſen, had it been his intention to denounce abſolutely eternal miſery.

To this we may add, that it does not appear from the writings of the moſt ancient fathers, that they put ſuch a conſtruction upon the words of the New Teſtament; and the omiſſion of this doctrine in the ancient creeds ſhews, that it was no original doctrine, or not thought eſſential; which yet could not be, if it was believed; or that many eminent perſons for ſome centuries were of a contrary opinion. And indeed the doctrine of purgatory, as now taught by the papiſts, ſeems to be a corruption of a genuine doctrine held by the ancient fathers concerning a purifying fire.

It may perhaps be, that the abſolute eternity of puniſhment was not received, till after the introduction of metaphyſical ſubtleties relating to time, eternity, &c. and the ways of expreſſing theſe, *i. e.* not till after the pagan philoſophy, and vain deceit, had mixed itſelf with and corrupted chriſtianity.

Still father, it does by no means appear to be conſonant to the nature of the chriſtian religion to interpret the New Teſtament in a ſtrict literal manner, or adhere to phraſes in oppoſition to the general tenor of it. Our Saviour in many places appeals to the natural equitable judgments of his auditors. The evangeliſts and apoſtles all enter into the reaſons of things; the goſpels are ſhort memoirs; the epiſtles were written to friends, and new converts; and the nature of ſuch writings muſt be very different from that of a preciſe determinate law, ſuch as that of *Moſes*, or the civil law of any country. And indeed herein lies one material difference between the rigid *Jewiſh* diſpenſation, and the chriſtian, which laſt is called by St. *James* the *perfect law of liberty*. From all which it follows, that we are rather to follow the general tenor, than to adhere to particular expreſſions. And this will appear ſtill more reaſonable, when it is conſidered, that we are yet but novices in the language of the Old and New Teſtaments, the relations which they bear to each other, and their declarations concerning future events.

Another argument againſt interpreting the paſſages above referred to, in the ſenſe of abſolutely eternal miſery, is, that there are many other paſſages, whoſe ſtrict and literal ſenſe is contrary thereto. And in ſuch a caſe it ſeems, that the infinite goodneſs of God, ſo many ways declared in the ſcriptures, muſt ſoon turn the ſcale. For the ſcriptures muſt be made conſiſtent with themſelves; and the veracity and goodneſs

of God ſeem much rather to oblige him to perform a promiſe, than to execute a threatening. I will mention a few paſſages, ſome of which it may be obſerved even eſtabliſh the contrary doctrine of the ultimate happineſs of all mankind.

Thus the moſt natural, as well as the moſt ſtrict and literal ſenſe of the words, *As in Adam all die, ſo in Chriſt ſhall all be made alive*, is the ultimate happineſs of all the children of *Adam*, of all mankind. God's *mercy* is declared to *endure for ever*; and he is ſaid *not to keep his anger for ever:* which expreſſions, in their firſt and moſt obvious ſenſe, are quite inconſiſtent with the abſolute eternity of puniſhment. Our Saviour ſays, that the perſon who is not reconciled to his brother, *ſhall not be diſcharged till he has paid the laſt farthing*; which intimates, that there is a time when he will be diſcharged. In like manner the debtor, who owed his lord ten thouſand talents, is delivered over to the tormentors, till he pay theſe. To ſay that he can never pay them, becauſe as we have all our faculties from God, ſo we can merit nothing from God, is to embrace the mechanical hypotheſis, which, in the judgment of all, muſt be utterly inconſiſtent with the eternity of puniſhment. For, if a man cannot have merit, he cannot have demerit. To ſuppoſe a creature any way brought into being upon ſuch terms as to be only capable of demerit, ſeems moſt highly injurious to the attributes of God, by whatever means this be effected, the fall of our firſt parents, or any other.

Again, *God in judgment remembers mercy.* This is ſaid in general; and therefore it ought not to be confined to the judgments of this world. And to do ſo, when all the pleaſures and pains of this world are every where in the New Teſtament declared unworthy of our regard in compariſon of thoſe of another, is highly unſuitable to the goodneſs of God. But indeed this cannot be done without departing from the moſt obvious literal ſenſe. The ſame may be ſaid of the paſſages, *God is not extreme to mark what is done amiſs*; *that he is loving to every man*; *that his mercy, his tender mercy, is over all his works*, &c. Can it be ſaid with any appearance of truth, that God will give an infinite overbalance of miſery to thoſe beings whom he loves.

It may very well be ſuppoſed, that though the puniſhments of a future ſtate be finite; yet this ſhould not be declared in ſo many words in the ſcriptures. For ſuch a procedure would be analogous to the gradual opening of all God's diſpenſations of mercy. Mankind in their infant ſtate were not able to receive ſuch kind of nouriſhment; neither are all perhaps yet able. But, if future puniſhments be abſolutely eternal, it is hard to conceive why this ſhould not have been declared in the moſt expreſs terms, and in many places of ſcripture; alſo how there ſhould be ſo many paſſages there, which are apparently inconſiſtent therewith.

There remains one argument more, and of great weight in my opinion, againſt interpreting any paſſages of ſcripture ſo as to denounce abſolutely eternal miſery. This is, the declarations of the ſcriptures concerning the ſmallneſs of the number of the elect, and the great difficulty of entering in at the ſtrait gate, already taken notice of.

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To ſuppoſe future puniſhments to be abſolutely eternal, is to ſuppoſe, that the chriſtian diſpenſation condemns far the greater part of mankind to infinite miſery upon the balance, whilſt yet it is every where declared to be a diſpenſation of mercy, to be *glory to God*, and *good-will to men*; which is a great apparent inconſiſtency. And indeed, unleſs the doctrine of abſolutely eternal puniſhment be taken away, it ſeems impracticable to convince the world of the great purity and perfection required by the goſpel in order to our entrance into the kingdom of heaven. If there be no puniſhment in another ſtate, beſides what is abſolutely eternal, men of very low degrees of virtue will hope to eſcape this, and conſequently to eſcape with impunity: whereas, if there be a purging fire, into which all the wicked are to be caſt, to remain and ſuffer there according to their demerits, far beyond what men generally ſuffer in this life; and if there be only few, that are admitted to happineſs after the expiration of this life, without ſuch farther purification; what vigour and earneſtneſs ſhould we uſe to eſcape ſo great a puniſhment, and to be of the happy number of thoſe, whoſe names are written in the book of life!

This may ſuffice to ſhew, that the abſolute eternity of future puniſhment cannot be concluded from the ſcriptures. We are next to inquire what evidences they afford for the ultimate happineſs of all mankind. I have already mentioned ſome paſſages, which favour this doctrine; but I intend now to propoſe two arguments of a more general nature.

Firſt, then, It may be obſerved, that the ſcriptures give a ſanction to moſt of the foregoing arguments, taken from the light of nature, for this doctrine, by reaſoning in the ſame manner. Thus the puniſhments of the *Jews* and others are repreſented as chaſtiſements, *i. e.* as evils tending to produce a good greater than themſelves. Our benevolence to our children is repreſented by Chriſt, as an argument of the infinitely greater benevolence of God our heavenly father. God promiſes to make *Abraham* happy by making his poſterity happy, and them happy by making them the inſtruments of happineſs to all the nations of the earth (which they are ſtill to be probably in a much more ample manner, than they have ever yet been). Now this ſhews, that the happineſs, intended for us all, is the gratification of our benevolence. The goodneſs of God is every where repreſented as prevailing over his ſeverity; he remembers good actions to thouſands of generations, and puniſhes evil ones only to the third and fourth. Not a ſparrow is forgotten before him; he giveth to all their meat in due ſeaſon; pities us, as a father does his children; and ſets our ſins as far from us, as heaven is from earth, &c. All which kind of language ſurely implies both infinite mercy in the forgiveneſs of ſin, and infinite love in advancing his purified children. We are all the offspring of God, and, by conſequence, agreeably to other phraſes, are *heirs of all things, heirs of God, and coheirs with Chriſt, members of the myſtical body of Chriſt, and of each other, i. e.* we are all partakers of the happineſs of God, through his bounty and mercy. God is the God of the *Gentiles*, as well as of the *Jews*; and has

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concluded them *all in unbelief*, only *that he might have mercy upon all.* And, in general, all the arguments for the ultimate happineſs of all mankind, taken from the relations which we bear to God, as our creator, preſerver, governor, father, friend, and God, are abundantly atteſted by the ſcriptures.

Secondly, There are in the ſcriptures ſome arguments for the ultimate reſtoration and happineſs of all mankind, which now ſeem ſufficiently full and ſtrong, and which yet could not be underſtood in former ages; at leaſt we ſee, that, in fact, they were not. Of this kind is the hiſtory of the *Jewiſh* ſtate, with the prophecies relating thereto. For we may obſerve, that, according to the ſcriptures, the body politic of the *Jews* muſt be made flouriſhing and happy, whether they will or no, by the ſeverities which God inflicts upon them. Now the *Jewiſh* ſtate, as has been already remarked, appears to be a type of each individual in particular, on one hand; and of mankind in general, on the other.

Thus, alſo, it is foretold, that Chriſt will *ſubdue all things to himſelf.* But ſubjection to Chriſt, according to the figurative prophetic ſtyle of the ſcriptures, is happineſs, not merely ſubjection by compulſion, like that to an earthly conqueror. Agreeably to this, all things are to be *gathered together in one in Chriſt*, both thoſe which are *in heaven*, and thoſe *on earth:* and St. *John* ſaw *every creature in heaven, in earth, under the earth, and in the ſea, and all that were in them, praiſing God.*

The prayer of faith can remove mountains; all things are poſſible to it; and, if we could ſuppoſe all men defective in this article, in praying with faith for the ultimate happineſs of mankind, ſurely our Saviour muſt do this; his prayer for his crucifiers cannot ſurely fail to obtain pardon and happineſs for them.

We are commanded to love God with our whole powers, to be joyful in him, to praiſe him ever more, not only for his goodneſs to us, but alſo for that to all the children of men. But ſuch love and joy, to be unbounded, preſuppoſe unbounded goodneſs in God, to be manifeſted to all mankind in due time; elſe there would be ſome men, on whoſe accounts we could not rejoice in God. At the ſame time, the delay of this manifeſtation of God's goodneſs, with the ſeverity exerciſed towards particulars, in their progreſs to happineſs, beget ſubmiſſion, reſignation, *fear and trembling*, in us, till at laſt we come in that *perfect love that caſts out fear.*

It may perhaps be, that the writers of the Old and New Teſtaments did not ſee the full meaning of the glorious declarations, which the holy ſpirit has delivered to us by their means; juſt as *Daniel*, and the other prophets, were ignorant of the full and preciſe import of their prophecies, relating to Chriſt. Or perhaps they did; but thought it expedient, or were commanded, not to be more explicit. The chriſtian religion, in converting the various pagan nations of the world, was to be corrupted by them; and the ſuperſtitious fear of God, which is one of theſe corruptions, may have been neceſſary hitherto on account of the reſt. But now the corruptions of the true religion begin to be diſcovered, and removed, by the earneſt endeavours of good men of

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all nations and ſects, in theſe latter times, by their *comparing ſpiritual things with ſpiritual.*

How far the brute creation is concerned in the redemption by Chriſt, may be doubted; and it does not ſeem to be much or immediately our buſineſs to inquire, as no relative duty depends thereon. However, their fall with *Adam*, the covenant made with them after the deluge, their ſerving as ſacrifices for the ſins of men, and as types and emblems in the prophecies, their being commanded to praiſe God (for every thing that hath breath is thus commanded, as well as the Gentiles), ſeem to intimate, that there is mercy in ſtore for them alſo, more than we may expect, to be revealed in due time. The *Jews* conſidered the *Gentiles* as dogs in compariſon of themſelves. And the brute creatures appear by the foregoing hiſtory of aſſociation to differ from us in degree, rather than in kind.

It may be objected here, that, if this opinion of the ultimate happineſs of all mankind be true, it is not, however, proper to publiſh it. Men are very wicked, notwithſtanding the fear of eternal puniſhment; and therefore will probably be more ſo, if that fear be removed, and a hope give to the moſt wicked of attaining everlaſting happineſs ultimately. I anſwer, Firſt, That this opinion is already publiſhed ſo far, that very few irreligious perſons can be ſuppoſed to believe the contrary much longer: or, if they do believe abſolutely eternal puniſhment to be the doctrine of the ſcriptures, they will be much induced thereby to reject revealed religion itſelf. It ſeems therefore to be now a proper time to inquire candidly and impartially into the truth. The world abounds ſo much with writers, that the mere opinion of a ſingle one cannot be ſuppoſed to have any great weight. The arguments produced will themſelves be examined, and a perſon can now do little more than bring things to view for the judgment of others. The number of teachers in all arts and ſciences is ſo great, that no one amongſt them can or ought to have followers, unleſs as far as he follows truth.

But, Secondly, It does not ſeem, that even the motives of fear are leſſened to conſiderate perſons, by ſuppoſing the fire of hell to be only a purifying one. For it is clear from the ſcriptures, that the puniſhment will be very dreadful and durable. We can ſet no bounds either to the degree or duration of it. They are therefore practically infinite.

Thirdly, The motives of love are infinitely enhanced by ſuppoſing the ultimate unlimited happineſs of all. This takes off the charge of enthuſiaſm from that noble expreſſion of ſome myſtical writers, in which they reſign themſelves entirely to God, both for time and eternity. This makes us embrace even the moſt wicked with the moſt cordial, tender, humble affection. We pity them at preſent, as *veſſels of wrath*; yet live in certain hopes of rejoicing with them at laſt; labour to bring this to paſs, and to haſten it; and conſider, that every thing is good, and pure, and perfect, in the ſight of God.

CONCLUSION.

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I HAVE now gone through with my obſervations on the frame, duty, and expectations of MAN, finiſhing them with the doctrine of ultimate, unlimited happineſs to all. This doctrine, if it be true, ought at once to diſpel all gloomineſs, anxiety, and ſorrow, from our hearts; and raiſe them to the higheſt pitch of love, adoration, and gratitude towards God, our moſt bountiful creator, and merciful father, and the inexhauſtible ſource of all happineſs and perfection. Here ſelf-intereſt, benevolence, and piety, all concur to move and exalt our affections. How happy in himſelf, how benevolent to others, and how thankful to God, ought that man to be, who believes both himſelf and others born to an infinite expectation! Since God has bid us rejoice, what can make us ſorrowful? Since he has created us for happineſs, what miſery can we fear? If we be really intended for ultimate unlimited happineſs, it is no matter to a truly reſigned perſon, when, or where, or how. Nay, could any of us fully conceive, and be duly influenced by, this glorious expectation, this infinite balance in our favour, it would be ſufficient to deprive all preſent evils of their ſting and bitterneſs. It would be a ſufficient anſwer to the πόθεν τὸ κακὸν, to all our difficulties and anxieties from the folly, vice, and miſery, which we experience in ourſelves, and ſee in others, to ſay, that they will all end in unbounded knowledge, virtue, and happineſs; and that the progreſs of every individual in his paſſage through an eternal life is from imperfect to perfect, particular to general, leſs to greater, finite to infinite, and from the creature to the Creator.

But, alas! this is chiefly ſpeculation, and muſt be to the bulk of mankind. Whilſt we continue entangled in the fetters of ſin, we cannot enjoy the glorious liberty and privileges of the children of God. We cannot exalt ourſelves to heaven, and make a right eſtimate of things, from the true point of view, till we get clear of the attraction, and magic influences of the earth. Whence it follows, that this doctrine, however great and glorious in itſelf, in the eye of a being ſufficiently advanced in purity and comprehenſion, muſt be to us like the book given to St. *John*, *bitter in the belly*, though *ſweet in the mouth*. The firſt general view cannot but charm us, however groveling and corrupt our minds may be. But when we begin to digeſt it, when, after mature deliberation, we come to ſee its ſeveral evidences, connections, and conſe-

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quences, our ſelf-intereſt, our benevolence, and our piety, in proportion to their ſtrength and purity, will all riſe up, and join their forces, and alarm us to the utmoſt extent of our faculties. When we conſider the purity required of thoſe, who are ſo happy as to eſcape the ſecond death, and the purifying lake of fire, whoſe ſmoke aſcendeth up for ever and ever, *i. e.* for ages of ages, we cannot but be in pain for ourſelves, and work out our own ſalvation with fear and trembling. When we view the ſin and wickedneſs, with which the world every where abounds, our hearts cannot but melt with compaſſion for others, for the tortures that are prepared for them, after the expiration of this life, in order to fit them for pure and ſpiritual happineſs, to burn out the ſtains of ſenſuality and ſelf-love, and exalt them to the unbounded love of God, and his works. When we conſider farther, that God has mercy on whom he will, and hardens whom he will, and that we, with all our pleaſures and pains, are abſolute nothings in compariſon of him, we muſt, like St. *John* again, fall down at his feet dead with aſtoniſhment. And yet we need not fear; from the inſtant that we thus humble ourſelves, he will lay his hand upon us, and exalt us; he has the keys of death and hell, in every poſſible ſenſe of thoſe words.

There is alſo another conſideration, which, though of leſs moment than the foregoing, is yet abundantly ſufficient to move the compaſſion of the good, and alarm the fears of the wicked; I mean the temporal evils and woes, which will probably fall upon the nominally chriſtian ſtates of theſe weſtern parts, the chriſtian *Babylon*, before the great revolution predicted in the ſcriptures, before the kingdoms of this world become the kingdoms of our Lord, and of his Chriſt. Theſe evils will be brought upon us by our exceſs of wickedneſs, juſt as the deluge was upon the old world, and the deſtruction of *Sodom* upon its lewd inhabitants, through theirs; they may alſo be ſomewhat delayed, or alleviated, by reformations public or private, even partial and temporary ones. I will therefore make a few ſhort remarks concerning ſuch things, as ſeem more particularly to call for the attention of the preſent chriſtian world; at leaſt of thoſe good *Philadelphians*, who are deſirous to keep themſelves and others from that hour of temptation, which is coming upon us all. My remarks muſt be ſuppoſed to relate chiefly to this kingdom; to be ſuggeſted by what occurs in it; and to be calculated, as far as my poor, but ſincere and earneſt endeavours can have any weight, to ſtem for a while that torrent of vice and impiety, which ſeem ready to ſwallow us up, and, if poſſible, to protract the life of the body politic. But I preſume, that the reſemblance between all the ſtates of *chriſtendom* is ſo great in all the points here conſidered, that the practical conſequences are the ſame upon the whole.

There are ſix things, which ſeem more eſpecially to threaten ruin and diſſolution to the preſent ſtates of *chriſtendom*.

Firſt, The great growth of atheiſm and infidelity, particularly amongſt the governing part of theſe ſtates.

Secondly, The open and abandoned lewdneſs, to which great numbers of both ſexes, eſpecially in the high ranks of life, have given themſelves up.

Thirdly, The ſordid and avowed ſelf-intereſt, which is almoſt the ſole motive of action in thoſe who are concerned in the adminiſtration of public affairs.

Fourthly, The licentiouſneſs and contempt of every kind of authority, divine and human, which is ſo notorious in inferiors of all ranks.

Fifthly, The great worldly-mindedneſs of the clergy, and their groſs neglects in the diſcharge of their proper functions.

Sixthly, The careleſſneſs and infatuation of parents and magiſtrates with reſpect to the education of youth, and the conſequent early corruption of the riſing generation.

All theſe things have evident mutual connections and influences; and, as they all ſeem likely to increaſe from time to time, ſo it can ſcarce be doubted by a conſiderate man, whether he be a religious one or no, but that they will, ſooner or later, bring on a total diſſolution of all the forms of government, that ſubſiſt at preſent in the chriſtian countries of *Europe*. I will note down ſome of the principal facts of each kind, and ſhew their utter inconſiſtency with the welfare of a body politic, and their neceſſary tendency to anarchy and confuſion.

I begin with the atheiſm and infidelity which prevail ſo much among the governing part of theſe weſtern kingdoms. That infidelity prevails, eſpecially in theſe kingdoms, will readily be acknowledged by all. But the ſame perſons, who treat the chriſtian religion, and its advocates, with ſo much ſcorn, will probably, ſome of them at leaſt, profeſs a regard to natural religion; and it may ſeem hard to queſtion their ſincerity. However, as far as has occurred to my obſervation, theſe perſons either deceive themſelves, or attempt to deceive others, in this. There appears in them no love or fear of God, no confidence in him, no delight in meditating upon him, in praying to him, or paiſing him, no hope or joy in a future ſtate. Their hearts and treaſures are upon this earth, upon ſenſual pleaſures, or vain amuſements, perhaps of philoſophy or philology, purſued to paſs the time, upon honour or riches. And indeed there are the ſame objections, in general, to natural religion as to revealed, and no ſtronger evidences for it. On the contrary, the hiſtorical and moral evidences for the general truth of the ſcriptures, which theſe perſons deny, are more convincing and ſatisfactory to philoſophical as well as to vulgar capacities, than the arguments that are uſually brought to prove the exiſtence and attributes of God, his providence, or a future ſtate: not but that theſe laſt are abundantly ſufficient to ſatisfy an earneſt and impartial inquirer.

If now there really be a God, who is our natural and moral governor, and who expects, that we ſhould regard him as ſuch, thoſe magiſtrates who care not to have him in their thoughts, to ſuffer him to interfere in their ſcheme of government, who *ſay in their hearts, that there is no God*, or wiſh it, or even bid open defiance to him (though I hope and believe this laſt is not often the caſe), cannot proſper; but muſt bring down vengeance upon themſelves, and the wicked nations over whom they preſide.

preſide. In like manner, if God has ſent his beloved ſon Jeſus Chriſt to be an example to the world, to die for it, and to govern it, it cannot be an indifferent thing whether we attend to his call or no. The neglect of revealed religion, eſpecially in perſons of authority, is the ſame thing as declaring it to be falſe; for, if true, the neglect of it is, as one may ſay, high treaſon againſt the majeſty of heaven. He that honours not the Son, cannot honour the Father, who hath ſent him with ſufficient credentials. And accordingly, if we conſider the ſecond pſalm as a prophecy relating to Chriſt, which it certainly is, thoſe kings and magiſtrates, who riſe up againſt God and his Chriſt, intending to ſhake off the reſtraints of natural and revealed religion, muſt expect to be broken in pieces like a potter's veſſel. Since they will not *kiſs the Son*, and *rejoice before him with reverence*, they muſt expect, that he will *rule over them with a rod of iron*.

Nay, we may go farther, and affirm, that if there were no ſatisfactory evidence for natural or revealed religion, ſtill it is the intereſt of princes and governors to improve that which there is to the beſt advantage. The happineſs of their people, their own intereſt with them, their power, their ſafety, their all, depend upon it. Neither is this any intricate, far fetched, or doubtful poſition, but a truth which lies upon the ſurface of things, which is evident at firſt ſight, and undeniable after the moſt thorough examination. So that for governors to render religion contemptible in the eyes of their ſubjects, by example or inſinuation, and much more by directly ridiculing or vilifying it, is manifeſt infatuation; it is ſeeing without perceiving, and hearing without underſtanding, through the groſſneſs and carnality of their hearts. And it may be part of the infatuation predicted to come upon the wicked in the latter ages of the world. For then *the wicked ſhall do wickedly, and none of the wicked ſhall underſtand*.

Religion is often ſaid by unbelievers, to have been the invention of wiſe law-givers, and artful politicians, in order to keep the vicious and head-ſtrong multitude in awe. How little does the practice of the preſent times ſuit with this! The adminiſtrators of public affairs in the preſent times are not even wiſe or artful enough to take advantage of a pure religion, handed down to them from their anceſtors, and which they certainly did not invent; but endeavour to explode it at the manifeſt hazard of all that is dear to them. For mankind can never be kept in ſubjection to government, but by the hopes and fears of another world; nay, the expreſs precepts, promiſes, and threatenings of the goſpel are requiſite for this purpoſe. The unwritten law of nature is too pliable, too ſubtle, and too feeble; a diſhoneſt heart can eaſily explain it, or its motives, away; and violent paſſions will not ſuffer it to be heard; whereas the precepts of revealed religion are abſolute and expreſs, and its motives alarming to the higheſt degree, where the ſcriptures are received and conſidered, in any meaſure, as they ought to be.

The *Greek* and *Roman* philoſophy and morality was not indeed equal to ours; but we may have a ſufficient ſpecimen from thence, how little very good doctrines, when taught without authority, are able to check the growing corruption of mankind.

Had not chriſtianity intervened at the declenſion of the *Roman* empire, and put a ſtop to the career of vice, the whole body politic of the civilized nations of that empire muſt have been diſſolved from the mere wickedneſs and corruption of its ſeveral parts. And much rather may the ſame come upon us, if after ſuch light and evidence we caſt off the reſtraints and motives of revealed religion.

I would not be underſtood to ſpeak here to thoſe alone, who are legally the governors of the nations of *chriſtendom*, *i. e.* who have a particular legiſlative or executive power veſted in them by the conſtitutions or cuſtoms of their reſpective countries; but alſo to all ſuch as by their eminence in any way, their learning, their titles, their riches, &c. draw the world after them. And it ſeems requiſite to remind the two learned profeſſions of law and phyſic, that though they are no ways qualified to judge of the evidence for religion, unleſs they have examined it carefully, *i. e.* with the ſame attention and impartiality, as they would do a matter of law or phyſic, where it is their intereſt to form a right judgment (in which caſe there ſeems to be no doubt but they will determine for it); yet the illiterate part of mankind will eaſily catch the infection from them on account of their general, confuſed reputation of being learned, and by means of the plauſible ways of haranguing and deſcanting upon topics, to which they are formed by their educations and profeſſions. And thus, whether they attend to it or no, they become the ſeducers of mankind, and rocks of offence to the weak and ignorant, and load themſelves with the guilt of other men's ſins. This caution is ſo much the more neceſſary, as it is common for young ſtudents in theſe profeſſions to liſt themſelves on the ſide of irreligion, and become nominal infidels of courſe, and from faſhion, as it were; and without pretending, as indeed there could be no reaſonable pretence, to have examined into the merits of the cauſe. Which blind and implicit faith in the blind, in one does not know what or whom, would be moſt unaccountable in thoſe who profeſs infidelity, were it not, that this is in every other inſtance a contradiction to itſelf, and muſt be ſo, on account of the wilful infatuation from which it ariſes.

I will now ſhew briefly how the prevalence of infidelity increaſes, and is increaſed by, the other evils here mentioned. That it opens a door to lewdneſs, cannot be doubted by any one; and indeed the ſtrictneſs and purity of the chriſtian religion, in this reſpect, is probably the chief thing, which makes vicious men firſt fear and hate, and then vilify and oppoſe it. The unwritten law of nature cannot fix preciſe bounds to the commerce between the ſexes. This is too wide a field, as I have obſerved above; and yet it highly approves of chaſtity in thought, word, and deed. If therefore men reject only revealed religion, great libertiniſm muſt enſue; but if they reject natural alſo, which is generally the caſe, we can expect nothing but the moſt abandoned diſſoluteneſs.

As to ſelf-intereſt, we may obſerve, that thoſe who have no hopes in futurity, no piety towards God, and conſequently no ſolid or extenſive benevolence towards men, cannot but be engroſſed by the moſt ſordid and groveling kind, that which reſts in preſent poſſeſſions and enjoyments. And, converſely, when ſuch a ſelf-intereſt has taken root,

root, they muſt be averſe to religion, becauſe it opens diſtant and ungrateful views to them, and inculcates the pure and diſintereſted love of God, and their neighbour; to them an enthuſiaſtic and impoſſible project.

In like manner infidelity muſt diſpoſe men to ſhake off the yoke of authority, to unbounded licentiouſneſs; and reciprocally is itſelf the natural conſequence of every degree of licentiouſneſs. Thoſe who do not regard the ſupreme authority, can be little expected to regard any of his vicegerents; thoſe who do not fear God, will not honour the king. If the infatuation of princes was not of the deepeſt kind, they could not but ſee, that they hold their dominions entirely by the real chriſtianity, that is left amongſt us; and that, if they do ſucceed in taking away this foundation, or weakening it much farther, their governments muſt fall, like houſes built upon ſand. Beſides the great influence which chriſtianity has to make men humble and obedient, it is to be conſidered, that our anceſtors have ſo interwoven it with the conſtitutions of the kingdoms of *Europe*, that they muſt ſtand or fall together. Chriſtianity is the cement of the buildings.

It is alſo evident, that the infidelity of the laity muſt have an ill effect in reſpect of the clergy. Many of theſe muſt be the ſons of infidels, thruſt into the church by their parents for ſubſiſtence, or with a view to great honours and profits; and muſt carry with them a deep tincture of the corruption and infidelity, which they imbibed in their infancy and youth. And it is not leſs evident, that the worldly-mindedneſs and neglect of duty in the clergy is a great ſcandal to religion, and cauſe of infidelity; the chief probably after the impatience of reſtraint in reſpect of chaſtity in the laity. It is alſo to be conſidered, that unbelieving magiſtrates will have little regard to the piety of the perſons, whom they promote to the higheſt ſtations of the church, but rather to their flattery, ſubſerviency, and apparent political uſefulneſs.

Laſtly, As to the perverted education of youth, atheiſm and infidelity are both the cauſe and effect of this in ſo obvious a manner, that it ſeems ſuperfluous to enlarge upon it.

The lewdneſs which I have mentioned above, as a ſecond cauſe of the future diſſolution of theſe weſtern kingdoms, is now riſen to ſuch a height, as almoſt to threaten utter confuſion. Men glory in their ſhame, and publicly avow what in former ages was induſtriouſly concealed. Princes are juſtly chargeable with a great part of this public guilt. Their courts will imitate them, in what is bad at leaſt; and be led on thereby from one degree of ſhameleſſneſs to another. The evil increaſes gradually; for neither courts, nor private perſons, become quite profligate at once; and this may make ſome almoſt perſuade themſelves, that the preſent times are not worſe than the preceding. The ſins of this kind are, for the moſt part, joined with idolatry in the prophetical writings, and made the types thereof. So that the open and avowed practice of them is an open renunciation of our allegiance to God and Chriſt; and, agreeably to this, is, as has been obſerved above, the principal cauſe why ſo many

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perſons reject revealed religion. But if we renounce our allegiance and covenant, we can be no longer under the protection of God.

The groſs ſelf-intereſt, which is now the principal motive in moſt marriages in high life, is both a cauſe and conſequence of this libertiniſm. The ſame may be obſerved of the great contempt, in which marriage is held, and which almoſt threatens promiſcuous concubinage among the higher ranks, and the profeſſed unbelievers.

As to the clergy, if they neglect to admoniſh princes and great men through fear, and ſervile intereſt, a great part of the national guilt will lie at their doors; and, if they become, in general, infected with this vice (which indeed is not the caſe now; but may perhaps hereafter, as all things grow worſe), it will ſoon be the entire ſubverſion of the external form of church government; however certain it be, that the church of thoſe, who *worſhip God in ſpirit, and in truth*, will prevail againſt the gates of hell.

The third great evil likely to haſten our ruin is the ſelf-intereſt, which prevails ſo much amongſt thoſe, to whom the adminiſtration of public affairs is committed. It ſeems that bodies politic are in this particular, as in many others, analogous to individuals, that they grow more ſelfiſh, as they decline. As things now are, one can ſcarce expect, that, in any impending danger, thoſe who have in their power to ſave a falling ſtate, will attempt it, unleſs there be ſome proſpect of gain to themſelves. And, while they barter and caſt about for the greateſt advantages to themſelves, the evil will become paſt remedy. Whether or no it be poſſible to adminiſter public affairs upon upright and generous principles, after ſo much corruption has already taken place, may perhaps be juſtly queſtioned. However, if it cannot be now, much leſs can it be hereafter; and if this evil increaſes much more in this country, there is reaſon to fear, that an independent populace may get the upper hand, and overſet the ſtate. The wheels of government are already clogged ſo much, that it is difficult to tranſact the common neceſſary affairs, and almoſt impoſſible to make a good law.

The licentiouſneſs of inferiors of all ranks, which is the fourth great evil, runs higher in this country perhaps, than in any other. However, the infection will probably ſpread. The inferiors in other countries cannot but envy and imitate thoſe in this; and that more and more every day, as all mutual intercourſes are enlarged. The ſelf-intereſt juſt ſpoken of contributes greatly to this evil, the inſolence of the populace againſt one party of their ſuperiors being ſupported, and even encouraged, by the other, from intereſted views of diſplacing their oppoſites. Let it be obſerved alſo, that the laity of high rank, by ridiculing and inſulting their ſuperiors in the church, have had a great ſhare in introducing the ſpirit of univerſal diſobedience, and contempt of authority, amongſt the inferior orders, in this nation.

The wicked and notoriouſly falſe calumnies, which are ſpread about concerning the royal family by the diſaffected party in this country, may be ranked under this evil. Thoſe who ſcruple to take the oaths required by the preſent government, ought at leaſt to ſeek the peace of the country, where they live in peace, and the quiet enjoyment

ment of their poſſeſſions. However, the crime of ſuch as take the oaths, and ſtill vilify, is much greater, and one of the higheſt offences that can be offered to the divine Majeſty.

That worldly-mindedneſs, and neglect of duty, in the clergy, muſt haſten our ruin, cannot be doubted. Theſe are *the ſalt of the earth*, and *the light of the world*. If they loſe their ſavour, the whole nation, where this happens, will be converted into one putrid maſs; if their light become darkneſs, the whole body politic muſt be dark alſo. The degeneracy of the court of *Rome*, and ſecular biſhops abroad, are too notorious to be mentioned. They almoſt ceaſe to give offence, as they ſcarce pretend to any function or authority, beſides what is temporal. Yet ſtill there is great mockery of God in their external pomp, and profanation of ſacred titles; which, ſooner or later, will bring down vengeance upon them. And as the court of *Rome* has been at the head of the great apoſtaſy and corruption of the chriſtian church, and ſeems evidently marked out in various places of the ſcriptures, the ſevereſt judgments are probably reſerved for her.

But I rather chooſe to ſpeak to what falls under the obſervation of all ſerious, attentive perſons in this kingdom. The ſuperior clergy are, in general, ambitious, and eager in the purſuit of riches; flatterers of the great, and ſubſervient to party intereſt; negligent of their own immediate charges, and alſo of the inferior clergy, and their immediate charges. The inferior clergy imitate their ſuperiors, and, in general, take little more care of their pariſhes, than barely what is neceſſary to avoid the cenſure of the law. And the clergy of all ranks are, in general, either ignorant; or, if they do apply, it is rather to profane learning, to philoſophical or political matters, than to the ſtudy of the ſcriptures, of the oriental languages, of the fathers, and eccleſiaſtical authors, and of the writings of devout men in different ages of the church. I ſay this is, in general, the caſe, *i. e.* far the greater part of the clergy of all ranks in this kingdom are of this kind. But there are ſome of a quite different character, men eminent for piety, ſacred learning, and the faithful diſcharge of their duty, and who, it is not to be doubted, mourn in ſecret for the crying ſins of this and other nations. The clergy, in general, are alſo far more free from open and groſs vices, than any other denomination of men amongſt us, phyſicians, lawyers, merchants, ſoldiers, &c. However, this may be otherwiſe hereafter. For it is ſaid, that in ſome foreign countries the ſuperior clergy, in others the inferior, are as corrupt and abandoned, or more ſo, than any other order of men. The clergy in this kingdom ſeem to be what one might expect from the mixture of good and bad influences that affect them. But then, if we make this candid allowance for them, we muſt alſo make it for perſons in the high ranks of life, for their infidelity, lewdneſs, and ſordid ſelf-intereſt. And though it becomes an humble, charitable, and impartial man, to make all theſe allowances; yet he cannot but ſee, that the judgments of God are ready to fall upon us all for theſe things; and that they may fall firſt, and with the greateſt weight, upon thoſe, who, having the

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higheſt office committed to them in the ſpiritual kingdom of Chriſt, neglect it, and are become mere *merchants of the earth*, and *ſhepherds, that feed themſelves, and not their flocks*.

How greatly might the face of things be changed in this kingdom, were any number of the ſuperior, or even of the inferior clergy, to begin to diſcharge their reſpective functions with true chriſtian zeal, courage, and fidelity! The earneſtneſs of ſome might awaken and excite others, and the whole lump be leavened. At leaſt, we might hope to delay or alleviate the miſeries, that threaten us. Why are not all the poor taught to read the Bible, all inſtructed in the church catechiſm, ſo as to have ſuch principles of religion early inſtilled into them, as would enable them to take delight in, and to profit by, the Bible, and practical books of religion? Why are not all the ſick viſited, the feeble-minded comforted, the unruly warned? And why do not miniſters go about, thus doing good, and ſeeking out thoſe who want their aſſiſtance? Why do not the ſuperior clergy inquire into theſe things, puniſh and diſcourage all negligent pariſh miniſters, reward and promote thoſe that are pious and diligent? Let thoſe worthy clergymen, who lament the degeneracy of their own order, inform the public what is practicable and fitting to be done in theſe things. I can only deliver general remarks, ſuch as occur to a by-ſtander.

There are great complaints made of the irregularities of the methodiſts, and, I believe, not without reaſon. The ſureſt means to check theſe irregularities is, for the clergy to learn from the methodiſts what is good in them, to adopt their zeal, and concern for loſt ſouls: this would ſoon unite all that are truly good amongſt the methodiſts to the clergy, and diſarm ſuch as are otherwiſe. And if the methodiſts will hearken to one, who means ſincerely well to all parties, let me entreat them to reverence their ſuperiors, to avoid ſpiritual ſelfiſhneſs, and zeal for particular phraſes and tenets, and not to ſow diviſions in pariſhes and families, but to be peace-makers, as they hope to be called the children of God. The whole world will never be converted, but by thoſe who are of a truly catholic ſpirit. Let me entreat all parties, as a ſincere friend and lover of all, not to be offended with the great, perhaps unjuſtifiable freedom, which I have uſed, but to lay to heart the charges here brought, to examine how far they are true, and reform wherever they are found to be ſo.

If the ſtate of things in this and other nations be, in any meaſure, what I have above deſcribed, it is no wonder, that the education of youth ſhould be groſsly perverted and corrupted, ſo that one may juſtly fear, that every ſubſequent generation will exceed that which went before it in degeneracy and wickedneſs, till ſuch time as the great tribulation come. Vicious parents cannot be ſenſible of the importance and neceſſity of a good and religious education, in order to make their children happy. They muſt corrupt them not only by their examples, but by many other ways, direct as well as indirect. As infidelity now ſpreads amongſt the female ſex, who have the

care

care of both ſexes during their infancy, it is to be feared, that many children will want the very elements of religion; be quite ſtrangers to the ſcriptures, except as they ſometimes hear them ridiculed; and be ſavages as to the internal man, as to their moral and religious knowledge and behaviour; and be diſtinguiſhed from them chiefly by the feeble reſtraints of external politeneſs and decorum. It is evident from common obſervation, and more ſo from the foregoing theory, that children may be formed and moulded as we pleaſe. When therefore they prove vicious and miſerable, the guilt lies at our doors, as well as theirs; and, on the contrary, he who educates a ſon, or a daughter, in the ways of piety and virtue, confers the higheſt obligation both upon his child, and upon the riſing generation; and may be the inſtrument of ſalvation, temporal and eternal, to multitudes.

There are two things here, which deſerve more particular attention, viz. the education of the clergy, and that of princes.

As to the firſt, one cannot but wonder, how it is poſſible for the many ſerious and judicious clergymen, who have the care of youth in public ſchools and univerſities, to be ſo negligent of the principal point, their moral and religious behaviour; and that eſpecially as the regulation of this would make all other parts of education go on with ſo much more eaſe and ſucceſs: how ſchool-maſters can ſtill perſiſt in teaching lewd poets after the remonſtrances of pious men againſt this practice, and the evident ill conſequences: how the tutors in the univerſities can permit ſuch open debauchery, as is often practiſed there: and how ſacred learning, which ſurely is the chief thing for ſcholars intended for the chriſtian miniſtry, can be allowed ſo ſmall a ſhare of time and pains, both in ſchools, and in the univerſities. But, as I ſaid before of the clergy in general, let thoſe ſchool-maſters and tutors, who have religion at heart, ſpeak fully to this point. I ſhall ſubmit my own judgment, in both caſes, entirely to the better judgment of pious men, that are converſant in theſe things.

As to the education of princes, the caſe is every thing but deſperate; ſo that one could ſcarce think of mentioning it, were it not for the great change in the face of things, which would immediately enſue, if but ſo much as one ſovereign prince would ſet aſide all ſelf-regards, and devote himſelf entirely to the promotion of religion, and the ſervice of mankind. I do not at all mean to intimate, that princes are worſe than other men, proper allowances being made. On the contrary, I ſuppoſe they are juſt the ſame. And they have an undoubted right to the greateſt candour, and compaſſion from their ſubjects, on account of the extraordinary difficulties and temptations, with which they are beſet, as well as to the moſt profound reverence, and entire obedience.

Theſe are my real and earneſt ſentiments upon theſe points. It would be great raſhneſs to fix a time for the breaking of the ſtorm that hangs over our heads, as it is blindneſs and infatuation not to ſee it; not to be aware, that it may break. And

yet this infatuation has always attended all falling ſtates. The kingdoms of *Judah* and *Iſrael*, which are the types of all the reſt, were thus infatuated. It may be, that the prophecies concerning *Edom*, *Moab*, *Ammon*, *Tyre*, *Egypt*, &c. will become applicable to particular kingdoms before their fall, and warn the good to flee out of them. And *chriſtendom*, in general, ſeems ready to aſſume to itſelf the place and lot of the *Jews*, after they had rejected their Meſſiah the ſaviour of the world. Let no one deceive himſelf or others. The preſent circumſtances of the world are extraordinary and critical, beyond what has ever yet happened. If we refuſe to let Chriſt reign over us, as our redeemer and ſaviour, we muſt be ſlain before his face, as enemies, at his ſecond coming.

NOTES AND ADDITIONS

TO DR. HARTLEY'S

OBSERVATIONS ON MAN;

By HERMAN ANDREW PISTORIUS,

Rector of POSERITZ in the Island of RUGEN.

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Dr. Johnſtone, in his *Eſſay on the Ganglions of the Nerves*, has endeavoured to ſhew that they are the ſources of all the nerves which go to organs that are ſtrictly *automatic*, as the heart, &c. and the checks or cauſes that hinder our volitions from extending to them.

The ganglions (ſays he), reſpecting their ſtructure, may juſtly be conſidered as little brains, or germs of the nerves detached from them, conſiſting of a mixture of cortical and nervous medullary ſubſtance, nouriſhed by ſeveral ſmall blood veſſels, in which various nervous filaments are collected, and in them loſe their rectilinear parallel direction, ſo that a new nervous organization probably takes place in them.

Reſpecting their uſes, ganglions ſeem the ſources or immediate origins of the nerves ſent to organs moved involuntarily, and probably the check or cauſe which hinders our volitions from extending to them.

Ganglions ſeem analogous to the brain in their office, ſubordinate ſprings and reſervoirs of nervous power; they ſeem capable of diſpenſing it long after all communication with the brain is cut off. And though they ultimately depend on the brain for its emanations, it appears from facts that that dependance is far from being immediate and inſtantaneous.

From the ganglions ſerving as ſubordinate brains, it is that the vital organs derive their nervous power, and continue to move during ſleep, &c.

In a word, ganglions limit the exerciſe of the mind's authority in the animal œconomy, and put it out of our power by a ſingle volition to ſtop the motions of our heart, and in one capricious moment irrevocably to end our lives.

NOTES AND ADDITIONS

TO DR. HARTLEY'S OBSERVATIONS ON MAN.

BY HERMAN ANDREW PISTORIUS,

RECTOR OF POSERITZ IN THE ISLAND OF RUGEN.

TRANSLATED FROM THE GERMAN EDITION PRINTED AT ROSTOCK AND LEIPSIC, 1772.

EXTRACT FROM MR. PISTORIUS'S PREFACE.

"I FOUND, that of the two volumes of Dr. Hartley's work in Engliſh, the firſt of which contains a complete phyſiological and pſychological ſyſtem, the ſecond only was properly fit for my purpoſe: this contains natural religion, a demonſtration of chriſtianity, its moral doctrines, a ſhort exhibition of the doctrines of faith, and finally a treatiſe on the expectations of man. I therefore contented myſelf with giving a ſhort though ſufficient abſtract of the firſt volume, which contains the aſſociation of ideas; but the ſecond I have thought it neceſſary to divide into two, and amplify it with my own obſervations." Theſe obſervations are here tranſlated entire, and are to be conſidered as additions to the introduction and the propoſitions in the ſecond part to which they refer.

NOTES AND ADDITIONS.

INTRODUCTION, p. 307.

On Neceſſity.

When the reader reflects, that this treatiſe on religion is the ſecond part of a work in which Hartley conſiders the nature of man, and treats the mind and body altogether as machines, he will probably take it up with miſtruſt and prejudice, and condemn it as irrational, without an examination. A certain free-will, of which indeed very different, and, in ſome meaſure, very erroneous ideas have been formed, but with which, in the opinion of moſt philoſophers and divines, neceſſity and the mechaniſm of the human mind are incompatible, has uſually been conſidered as abſolutely requiſite to religion and morality. The ſuppoſition, that both muſt fall to the ground, if the human ſoul be ſubjected to corporeal or ſpiritual mechaniſm, has been ſupported both by the friends and by the opponents of religion: the former conſidering as an enemy to religion every one who defends the doctrine of mechaniſm, and the latter having attacked religion and morality with the principle of neceſſity. Hence Hartley's endeavour, not merely to ſhew the accordance of mechaniſm with religion, but even to build all religion on the doctrine of neceſſity, is a new and unheard of attempt, in which reſpects it deſerves the attention of the learned. The chain of his reflections, and the developement of his ſyſtem, will remove from the mind of every thinking and impartial reader, that miſtruſt which may ariſe from the prejudice of commonly received opinions: we will however premiſe a few general obſervations in defence of his theory.

The end of morality and religion is, unqueſtionably, the happineſs of mankind. Man is endued with the power of being rationally virtuous, and is made capable of religion, that through the exerciſe of this power and this capability he may attain that happineſs which is appointed for him, and of which he is ſuſceptible. All that we have to inquire, therefore, is; can man, conſidered as a rational, moral, and religious being, be happy,

if

if his moral and religious notions, perceptions, and actions be ſubject to mechaniſm? or do mechaniſm and happineſs reciprocally exclude each other? That neceſſity is not incompatible with happineſs and virtue, is clear, as has been already obſerved by others, from this principle, that, if it were, God could neither be virtuous nor happy, ſince he is both from neceſſity. Of happineſs we know nothing, but that it conſiſts in a chain of agreeable ſenſations, or that it is a ſtate which man rather wills, than wills not. By mechaniſm we underſtand a power of effecting or ſuffering ſuch changes as are dependent on each other, by that neceſſary connection which we diſcover in all nature, as cauſe and effect, and which are united to and follow each other according to certain eſtabliſhed laws. If the human mind be ſubject to ſuch a mechaniſm, all its actions and ſufferings, its perceptions and ideas, its deſires, inclinations, and paſſions muſt be conſequences of a neceſſary connection; and ſo founded on each other, that, according to one or more ſimple invariable laws, they will follow one another in ſuch a manner as to exclude every thing arbitrary, fortuitous, ariſing from no motive, or aiming at no end. Compare theſe two definitions, of happineſs and mechaniſm, and ſhew, that they are incompatible with each other. If you cannot do this, and prove that man is incapable of all agreeable ſenſations or their conſequences, when there are ſufficient grounds for them, and that content and happineſs, when mechanically produced, are no longer content and happineſs to him, mechaniſm and religion cannot be proved to be contradictory.

It may be ſaid, if religion may make a man happy on the principles of neceſſity, ſtill on thoſe principles it cannot render him virtuous, or an object of divine bliſs and reward. To begin with the latter: that man if neceſſarily good is not an object of reward. Is reward, then, eſſentially different from content and happineſs? Aſſuredly no otherwiſe than as it is a certain determinate happineſs, connected with and conſequent to a certain virtuous, or ſuitable conduct, call it which you will. What ſhould hinder the Supreme Being from permitting a neceſſary good conduct to be followed by a neceſſary adequate happineſs? What ſhould prevent him from making known this happineſs, which he connects with the ſuitable conduct of his rational creatures, and propoſing it as a reward, in order to incite them by this motive to purſue ſuch a conduct? As little is neceſſity derogatory to virtue, unleſs in the definition of virtue we arbitrarily refuſe all impulſe, and every kind of neceſſity, ſuch as conſiſts in the relation of cauſe and effect; that is, unleſs we aſſume what has been diſputed above. According to the common uſe of language we call a man virtuous who thinks and acts in a manner ſuitable to his nature, deſtination, and the grand purpoſes of his being. To aſcribe to him virtue, we merely conſider whether this manner of thinking and acting proceed from his moral character, and whether his virtue be his own will, choice, and determination; without concerning ourſelves how, or after what laws, his good thoughts and actions ariſe, whether they be neceſſary or accidental, and whether the ſame man who acts juſtly and uprightly could, in the very ſame internal and external

circumſtances,

circumſtances, and propoſing the very ſame grounds, have acted wickedly and unjuſtly. We deem it ſufficient, that he acts ſpontaneouſly, and that his determinations and actions accord with his will and underſtanding: ſufficient, that he is not ſubjected to a blind fate, by means of which he is abſolutely determined to a certain mode of acting and ſuffering, let what will have preceded, and independent of his internal or external circumſtances.

If it be alleged, that he who is determined to the end muſt alſo be determined to the means, and that, conſequently, abſolute and conditional neceſſity amount to the ſame thing; we ſhall obſerve this important difference, that the rational agency of man is conſiſtent with that conditional neceſſity which the mechaniſm of the ſoul admits, but with abſolute neceſſity it is incompatible and impoſſible. Were man aſſured, that a certain conſequence would be inevitable, let him do what he would, and that it would infallibly happen, independent of any means that he might chooſe to employ, he would do nothing to obſtruct or promote it, and would have no motive to act. On the other hand, if conſequences be always connected with certain means known to man, and nothing happens but in a certain ſeries and order, and when ſomething elſe has preceded it; if, too, they be ſo far contingent, that he cannot foreſee them with certainty, or cannot foreſee them in as far as all that we term means do not precede in an appointed order; he muſt firſt employ the means, if he deſire them to happen, or, if he deſire them not to happen, he muſt avoid every thing that precedes when ſuch conſequences follow: in other words, his uncertainty of the future will make it ſo far contingent to him, that he will be capable of agency. Whilſt he alſo knows, that if this future actually will be, it can no otherwiſe be than as preceded by certain circumſtances, and as he does or avoids certain actions, in this knowledge he will have a principle of action, or a motive to ſet his mechaniſm agoing. Suppoſe a man to have broken a bone; if his fate were ſubjected to blind neceſſity, and this accident muſt have a conſequence, whether foreſeen by him or not, which muſt at all events follow, whatever precede, or whatever ſteps be taken by him, he would remain inactive and in deſpair, unable to act or will. This is the conſequence of abſolute neceſſity. It deſtroys all action. If a man in the ſame circumſtance know not the event of the fracture, and cannot foreſee whether he ſhall recover or die, yet knows that for his recovery his bone muſt be united and healed, and that he muſt conduct himſelf in a proper manner to obtain this, or otherwiſe will inevitably die; this uncertainty and knowledge taken together will enable and determine him to act. Thus conditional neceſſity by no means deſtroys rational agency, whilſt man knows not the future, but by preceding circumſtances, and cannot determine neceſſary conſequences, but by the means he employs. It may be ſaid: if man be ſubject to abſolute neceſſity, cannot his uncertainty of the future impel him to act, as well as if he were ſubject to conditional neceſſity? To this I ſhall anſwer: even if he be capable of action, that action cannot be rational: it can only be the effect of chance, ſince he muſt want thoſe

principles

principles of action which his knowledge of cauſe and effect, and his inſight into the natural courſe of things would afford him on the ſcheme of conditional neceſſity.

Hence it follows, that according to the ſyſtem of conditional neceſſity, or mechaniſm, man is an agent, produces himſelf his actions and paſſions, and acts either adequately or inadequately to his ultimate end, is virtuous or wicked, and conſequently happy or miſerable; and as religion is given him as a mean of becoming virtuous and happy, by it he is capable of being both.

That the doctrine of neceſſity is liable to be miſconceived and miſapplied, is no objection to the doctrine itſelf, when it may be proved that the abuſe of it always proceeds from its being miſunderſtood. If the wicked man allege: I am deſtined to ſin, I muſt neceſſarily and continually act wickedly; he will fortify himſelf by this notion againſt the fear of puniſhment, and attempt not to make himſelf better. The principle of neceſſity, however, cannot free him from puniſhment, or the evil conſequences of his wickedneſs. As his actions are not unjuſt, becauſe they are neceſſary, his puniſhment is not unjuſt, becauſe it is equally neceſſary. It depends on his evil deeds, as an effect on a cauſe, as his actions on the cauſes which produced them. Daily experience teaches him this, in the evils he ſuffers in conſequence of his irrational conduct. Equally groundleſs, and contrary to experience, is it for him to reject all attempts to amend himſelf under the pretext of neceſſity. The improvement or depravation of his mind is only conditionally neceſſary. Both are to him accidental. According as he employs, or neglects, the means which lead to one, or the other, ſuch improvement, or depravation, muſt enſue. His preſent evil ſtate, and preſent propenſity to wickedneſs, no more juſtify him in concluding their duration and increaſe inevitable, than the diſordered ſtate of his body in diſeaſe the infallible neceſſity of his dying. Were this mode of concluſion juſt, man would attempt no alteration of thoſe things in which his convenience required a change, and be unable to apply any endeavours for that purpoſe: ſince being in their natural ſtate uſeleſs, and inadequate to the purpoſes, they muſt, according to this reaſoning, ever remain ſo, or ſtill continue to be noxious, if they be ſo at preſent. On this principle, if a man's foot ſlip, and he be in danger of falling, he ought not to endeavour to ſave himſelf, but let the event be as it may.

If a man, who from the neceſſary connections in nature ſhould draw ſuch concluſions, and would act from theſe, or rather, acknowledging his fate wholly inevitable, remain inactive, ſhould be guilty of an obvious folly, the notion of neceſſity would not quiet his mind, or juſtify him in his own breaſt for his inactivity, or deſpair of improving his diſpoſition. The leſs the conſequences and efficacity of the means which lead to ſuch an end are doubtful, and the leſs chance reigns in the world, the leſs could he do this, and with the more certainty might he hope for the happy conſequences of ſuch means, if employed in the way preſcribed by religion.

PROP.

PROPOSITION. C p. 311.

On the Poſition of ſufficient Cauſes.

The principle, that ſomething has exiſted from all eternity, or that there never was a time when nothing exiſted, with which Locke alſo begins the proof of the exiſtence of God, is the ſame which the German philoſophers term the poſition of ſufficient cauſes, and the univerſality of which Clarke would not grant Leibnitz. If we except the known Carteſian proof of the poſſibility of a perfect being from his reality, all proofs of the exiſtence of God are founded on the poſition of ſufficient cauſes, and, as far as they are ſolid and convincing, depend on the truth and univerſality of this poſition. If there were a ſingle caſe in which any thing might be and commence without a reaſon and without a cauſe, a world, for ought we know, might ſo originate. Perhaps, therefore, Hume was not in the wrong, in refuſing to admit the application of the poſition of ſufficient cauſes to the origin of the world, ſince, according to his opinion, this poſition being founded ſolely on conſtant experience, all the caſes in which we have found it juſt are totally unlike that to which it is applied as a proof of the exiſtence of God, and we are by no means juſtified in applying it to caſes of which we can have no experience. To remove theſe and ſimilar difficulties, it were to be wiſhed, that the poſition of ſufficient cauſes might be brought into a neceſſary and indiſputable connection with the firſt principles of all human knowledge, the poſitions of compatibility and incompatibility. This has been attempted, and Baumgarten's endeavours to do it are well known. His proof of the poſition of ſufficient cauſes from that of incompatibility, however, fails, if not in truth, in the neceſſary evidence. Nothing, he maintains, would be ſomething, if nothing were the ſufficient cauſe of ſomething: but if inſtead of the words he uſes in the latter part of this propoſition we ſubſtitute the equivalent ones, if ſomething had no cauſe, his conſequence appears to fail.

Perhaps the connection of the two principles may be better ſhewn in the following manner. Every man, even the atheiſt, unleſs he would eſtabliſh one ſimple idea, muſt agree, that *nothing* or ſomething *impoſſible*, is that which annihilates itſelf, is incompatible, and is at the ſame time A and not A. Thus all that is affirmed of it muſt equally be denied. Nothing can apply to it, and therefore it is not an object of thought. On the contrary, that which does not annihilate itſelf, is not incompatible, is A or not A, may be termed *poſſible* and *ſomething*. Something may be affirmed or denied of it. Something will apply to it, and therefore it is an object of thought. Whether we allow it to be the firſt idea of a poſſibility or an impoſſibility, or the immediate conſequence of the firſt idea, that it is or is not an object of thought, the concluſion will be the ſame, whilſt it is admitted, that an idea which annihilates itſelf cannot be

conceived

conceived by God or man, as it plainly is not an object of thought. Now let me ask: is a ſhining ſun an impoſſibility? This no one will aſſert. But has its poſſibility any grounds? May I aſk why it is poſſible? Unqueſtionably it is poſſible, becauſe it is an object of thought; and it is an object of thought, becauſe the ideas of a ſun and of light are not incompatible. Thus the abſence, the want of incompatibility, is the ground of all poſſibility; and the poſition of compatibility is founded on and preſuppoſes the poſition of a ſufficient cauſe. Let us not cavil about the expreſſion of abſence or want of incompatibility. This abſence forms a true reality; as the want of all imperfection produces the greateſt perfection. Neither can the univerſality of this poſition be diſputed. It extends itſelf ſolely to poſſibilities, and ought not to be confounded with the poſition, that there is no effect without a cauſe. The latter is merely a deduction from the former, and is only applicable to things which actually are. If it be aſked, is ſuch a thing poſſible? we ſhould firſt inquire, is there any incompatibility in it? The aſcertaining of this can alone determine its poſſibility or impoſſibility. But if every thing be grounded on poſſibility, and poſſibility be an object of thought, nothing without ground can be an object of thought. Every thing that is has its grounds. Nothing is without grounds. All our ideas certainly ſpring from ſuch an inveſtigation, ſince no idea can ariſe in any other way. A wooden whetſtone is mentioned to me as a rarity. I laugh at it as an abſurdity, till I am convinced, that wood is capable of being petrified, and that the incompatibility which I at firſt ſuſpected does not exiſt. If this be perfectly juſt, we cannot long diſpute, whether there be any idea ſo ſimple, that the preſence or abſence of incompatibility in it cannot be determined, or which, in other words, has no grounds of poſſibility or impoſſibility. Certainly there is no ſuch ſimple idea: for every imaginable ſubject muſt have, or be capable of having a predicate; conſequently, between the ſubject and all poſſible predicates there muſt or muſt not be an incompatibility, or it ceaſes to be a ſubject. The ground of this lies in both. The ſubject is never a purely ſimple idea, ſince it admits one predicate, and rejects another. We men never conceive a ſubject without conjoining to it ſome predicate, be it ever ſo obſcurely: ſtill leſs can a ſimple idea be formed in the mind of the infinite being, to whom all poſſible things preſent themſelves in all poſſible connections. Thus it would be granting too much, to ſay, that a poſition without any ground is impoſſible and inconceivable, at leaſt with reſpect to the human underſtanding; as I think I have proved, that it muſt be inconceivable to every thinking being. There is ſuch a relation throughout the whole ſphere of poſſibilities, that two ideas muſt in all caſes be either capable or incapable of being conjoined. The ground of this conſiſts in their compatibility or incompatibility, and as far as they are capable of being combined in thought are they poſſible, or impoſſible, without reference to any particular thinking being. The following obſervations may ſhew us how the human underſtanding arrives at a comprehenſion of what has or has not grounds.

Throughout all nature we diſcover nothing wholly detached, nothing perfectly inſulated, nothing which is not on one ſide or other connected with ſomething elſe, and nothing indiviſible or unconnected in a certain proportion of power and magnitude, or of quantity in general. This conſtant obſervation of a never-failing and proportionate connection is the origin of our ideas of grounded and ungrounded, of cauſe and effect, and by this are they juſtified. To this alſo may be added,

Secondly, The neceſſary aſſociation of our conceptions. We can have no conception, no perception, that is wholly ſolitary, and independent of every thing. Indeed we perceive an exact proportion of the aſſociated conceptions, at leaſt if we pay a little attention to them. It is the nature of our mind to have aſſociated conceptions, and to aſſociate its ideas according to certain immutable laws. As in this reſpect the human mind agrees with all nature, and as in each there is ſuch a conſtant, complete, and proportionate aſſociation, which regulates what may be clearly conceived of the idea of grounded and ungrounded; this agreement in an aſſociation, which is abſolutely neceſſary to our thinking, muſt be the laſt and deciſive proof of the truth and univerſality of the poſition of ſufficient cauſes, if it could not be proved by abſtract reaſoning.

PROP. CI. p. 311.

On the Eternity of God's Exiſtence.

If the foregoing propoſition be admitted, that ſomething muſt have exiſted from all eternity, or, that there never was a time when nothing exiſted, the ſole queſtion that remains is, whether a ſucceſſion of finite dependent beings can be that ſomething which has exiſted from eternity. To prove that it cannot, it is neceſſary to ſhew, that it is incompatible with the above propoſition. I know none of our German philoſophers who has more clearly and deciſively ſhewn this than the late Reimarus in his truths of natural religion, to which I refer thoſe of my readers, to whom Hartley's concluſions are not ſufficiently clear and convincing. In the mean time, as I confeſs, that this important point deſerves a more ſtrict inveſtigation, and fuller explanation than are here beſtowed upon it, I will endeavour to elucidate our author's arguments.

The firſt term of an infinite ſeries, ſays he, would be an effect without a cauſe, which, from the firſt propoſition, is inadmiſſible. The firſt term, like all the other terms of this ſeries, is a ſomething of itſelf, and diſtinct from all the reſt. Like thoſe which follow, it muſt have a cauſe external to itſelf, or ſomething muſt be conceived prior to it; conſequently it cannot be the firſt. If it be objected, that, in an infinite ſeries or number, no firſt term can be admitted, and that whatever term we take can only be a continuation of a ſeries infinite *a parte ante*, this continuation of an infinite ſeries, in which there is no firſt term, is deſtitute of a ſufficient cauſe; and, as our author juſtly obſerves, ſuch a ſeries is as impoſſible and inconceivable as a number capable of increaſing

increaſing or decreaſing without originating from, or arriving at unity. If it be aſſerted, that by increaſing the terms to infinity we approach the cauſe, or ſufficient grounds, of the whole ſeries, and this infinite ſeries be compared with mathematical approximation, in which the magnitude ſought is continually approached nearer, without our being able ever to reach it, our author rightly anſwers, that in ſuch a caſe every ſtep muſt bring us nearer to the cauſe of this infinite ſeries: but this is not the caſe; for however far we go back, or however great we take the ſeries of dependent beings *a parte ante*, we are ſtill equally diſtant from what is ſought, namely, their true cauſe. Hence what is ſaid of infinite ſeries in mathematics is not applicable here; as in the former we approach the magnitude ſought, in this we do not. In that the difference continually decreaſes, and ultimately becomes imperceptible to us: in this, were we to go back to all eternity, the difference would ever remain the ſame. Thus an infinite ſeries of finite beings is totally incompatible with the poſition of a ſufficient cauſe. This concluſion is more clearly and conciſely deduced by Baumgarten. An infinite ſeries of dependent beings, is, from the propoſition, an infinite ſeries of accidental things, none of which has the cauſe of its exiſtence in itſelf; ſo that ſuch a ſeries muſt be without a cauſe, if it do not originate from a prior neceſſary being.

The next concluſion of our author, that, if there be nothing more in the univerſe than a mere ſucceſſion of finite dependent beings, then there is ſome degree of finiteneſs ſuperior to all the reſt, applies to thoſe, who, to remove the difficulty of accounting for the origin of certain finite beings, admit a being ſuperior but ſtill finite. This is ſhifting the poſition of the difficulty without leſſening it. Such a finite being, however high we place it, requires a cauſe equally with the leaſt. This Hartley applies to man, and obſerves, that as man cannot comprehend his own nature, he muſt imagine a finite being ſuperior to him that can: but as this being muſt naturally be ſuppoſed in a ſimilar ſituation, he muſt go on till he arrives at an infinite being, or one capable of comprehending himſelf. He advances the general propoſition, that no degree of finite being can be taken as the higheſt, as a ſtill higher degree is conceivable, and there is abſolutely no cauſe, or no reaſon, why ſuch a higher degree ſhould not exiſt. This queſtion, the poſſibility of which, if we admit the poſition of a ſufficient cauſe, fully proves its validity, ſtill recurs, till we come to a being whoſe eſſence exhauſts all poſſibility, whoſe magnitude is above all meaſure, and who no longer admits of ſaying, why is there not a yet greater? All finite beings, indeed, that we obſerve, ſeem to point to ſuch an immenſurable infinite being. The difficulty which our author notices in the laſt place proceeds only from a miſconception. We aſcribe a cauſe to exiſtent things only ſo far as we diſtinguiſh their reality from their poſſibility, or advance, that, beſides what is neceſſary for us to comprehend their poſſibility, which is the want of incompatibility, we require ſomething more to comprehend their reality. The cauſe of their being what they are muſt be in themſelves, or external to them. In themſelves it cannot be, for that would be the ſame as to ſay, that they produced themſelves. But

were there a caſe in which we muſt ſay, that the cauſe of its reality is in the thing which exiſts (and this we can and muſt ſay of God) there can be no cauſe of its reality but its poſſibility. He is, ſince he can be, and in him reality and poſſibility are no way diſtinguiſhable from each other. This, it is true, runs into the ſo often diſputed proof of the being of God from his poſſibility: which proof, I confeſs, is not to me ſufficiently evident. I cannot, however, without a contradiction, maintain the oppoſite ſide of the queſtion: I cannot ſay, God does not exiſt becauſe he is poſſible; or, his poſſibility and reality are not ſo cloſely connected, that the former preſuppoſes the latter. Were I to ſay this, I muſt annihilate the idea of a ſelf-exiſtent neceſſary being, and return to that of accidental things, which, actually to be, require ſomething more than to be poſſible, or which require grounds for their poſſibility, and, beſides theſe, grounds for their reality.

PROP. CII. p. 313.

On the Infinity of God.

Our author dwells longer on the proof of the divine attributes of power and knowledge, and particularly of the infiniteneſs of thoſe attributes, than is uſual with the German philoſophers, who commonly content themſelves with the firſt argument, that an infinite being muſt be infinite in every thing which he is or has, and conſequently his attributes muſt be infinite. Indeed it is abſurd and contradictory, that a being can be finite in one reſpect, and infinite in another; or that the powers and qualities of a being, which conſtitute the eſſence of that being, and through which it properly exiſts, ſhould be of different and indeed oppoſite natures. To him who underſtands the meaning of the words this muſt be as evident as the poſition, that a finite being muſt have finite powers, and cannot poſſeſs infinite qualities.

Let us however examine our author's particular proofs for the infinity of God's attributes. The inſtances and evidences of power and wiſdom which we find in nature are innumerable and incomprehenſible; with reſpect to our comprehenſion, then, at leaſt they are infinite: and this conception of a relative infinity ultimately loſes itſelf in our minds, and is changed into an abſolute infinity. He ſhews alſo, that we are led from the poſition of a ſufficient cauſe to admit an infinite univerſe, or an univerſe infinite in number and extenſion: ſince if we ſuppoſe the univerſe to be finite, or limited in number and extenſion, we muſt inquire after the cauſe of this limitation, and as we can find none, we muſt reject the ſuppoſition. Thus the whole comes to this, from the idea we have of a dependent being, a being inconceivable without an external cauſe, and which conſequently never actually has all that it is capable of having, or the reality of which is never the ſame with its poſſibility (and ſuch the author

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ſuppoſes the world to be) does it not naturally follow, that ſuch a being cannot be infinite in the ſtrict ſenſe of the word, or as we ſay that God is infinite?

That is truly and metaphyſically infinite which has every thing poſſible, that is, every thing real, or which has no limits. To be infinite, and to have no limits, are the ſame. But what is that which can have no limits? Unqueſtionably nothing but a reality. In God every reality is without limits: were it limited, or might it be conceived greater than it is, it would not have, or rather would not be, all that it might. For this there muſt be ſome cauſe; and this cauſe muſt be either in God, or out of him. In the latter caſe, he would no longer be a ſelf-exiſtent independent being; he would not be God: in the former, the limiting cauſe muſt be in his will, which is inconceivable, or in his other realities oppoſing and limiting one another. Were ſuch a limitation of God's realities conceivable, it would follow, that there was actually ſome negation in the idea of God; ſince all limitation muſt ariſe from a negation, or a contradiction. But no reality conſidered in itſelf can be contradictory to the others. No reality, generally or abſolutely taken, involves a negation: and with relative realities we have nothing to do. All God's realities, therefore, abſolutely conſidered, are affirmative, whence no contradiction, and conſequently no limitation of one by another is poſſible. Are we, however, juſtified in conſidering every reality in God as abſolute? Certainly: ſince God is and muſt be actually all that is poſſible; conſequently the grounds of the negation of all limits are in his very eſſence. This, I think, would appear more clearly, were we to conſider a relative reality with its cauſes. The degree of mental capacity which a beaſt poſſeſſes is a reality of a relative kind. To the beaſt, a higher degree, the underſtanding of a man for inſtance, would be no reality, and for this reaſon, becauſe it would be incompatible with the other qualities which the beaſt has, and muſt have. Now if we ſupoſe a being poſſeſſing every thing that would render the higheſt degree of underſtanding not only poſſible, but capable of acting in the moſt perfect manner; in ſuch a being the higheſt degree of underſtanding would find nothing by which it could be limited: his underſtanding muſt be without limits, or an abſolute reality. Thus it is with God, and with all his realities. His unlimited eſſence, or his independent neceſſary exiſtence, excludes all limitation of his realities, and exalts them to the ſtate of abſolute, ſo that they never admit a negation, but are ever affirmative; conſequently they allow of no colliſion, no cauſe of limitation. I do not think it rightly and accurately ſpeaking, therefore, to ſay: God has all the realities and perfections *that can poſſibly coexiſt*. The laſt is a ſuperfluous addition. All realities, abſolutely conſidered, as in the ſelf-exiſtent being they muſt be, may coexiſt, nothing being denied by either of them. All being affirmative, no oppoſition, no contradiction betwixt them is poſſible. Otherwiſe it appears to me, that no limited true reality external to God is poſſible, of which the original and ſource is not in him. He could not permit any reality actually to be out of him, if he poſſeſſed it not himſelf. God is the moſt real being; whatever is real muſt be in him.

To

To return again to the queſtion of the infinity of the univerſe. When I ſay, that the truly infinite is that, which, devoid of limits, is either ſo great that we can conceive nothing greater, or, if we conſider it as actually exiſting, the reality of which is equal to its poſſibility, according to this definition, infinity is applicable only to the ſelf-exiſtent being, and we muſt deny it to the univerſe as diſtinct from or dependent on him. Infinity, according to which a being is all that it is capable of being, flows from ſelf-exiſtence, and is indeed only another expreſſion for the ſame thing; conſequently it cannot be a property of a dependent being. What follows may ſerve farther to explain this difficult queſtion.

If I confine myſelf to the queſtion, whether the univerſe be infinitely extended, I muſt inquire, whether the univerſe admit of an infinite number of parts: and as this may ſtill be equivocal, I muſt farther inquire, whether any term be to be ſet to its duration. In this ſenſe of the queſtion, I admit, that the parts of the univerſe may be increaſed *a parte poſt* to infinity, not merely in thought, but in reality. If it be aſked, whether the number of its parts be infinite *a parte ante*, I know not what I ſhall anſwer. My cuſtomary ideas of accidental things, which render me unable to conceive them without a beginning and without an origin, ſtick ſo cloſely to me, that I cannot clearly comprehend the queſtion, much leſs ſolve it. I cannot conceive an infinite univerſe in this ſenſe otherwiſe than as an actual one, and conſequently, as it appears to me, conſiſting of an infinite number of unities. I readily confeſs, that ſuch a number is to me inconceivable. It may further be aſked; is the number of parts of the univerſe exiſting at one time infinite, or ſo great, that it would be abſurd to increaſe it in idea? To the given impoſſibility of an actually determinate, and at the ſame time infinite number, the following may be oppoſed. The infinite underſtanding of God is equally determinate, ſince it actually is; but infinity alone can meaſure it, to every created mind it is infinite. Suppoſe it to be divided into an infinite number of finite terms; each of theſe terms would form a part of an infinite, without any one of them conſtituting an infinite underſtanding ſeparately. Each would ever be capable of being conceived greater, and more terms might ſtill be added till the number became infinite. Apply this to an infinite number of exiſting things. If the number of things exiſting in the univerſe be actually infinite, and if we conceive the underſtanding of God as conſiſting of an infinite number of finite terms, ſo far they will agree, and what holds good of the one will hold good of the other. In my opinion, however, this does not apply in the preſent inſtance, nor can the notion of a really exiſting infinite number be thus ſupported. The underſtanding of God, I would ſay, is a perfect unity, indiviſible, immenſurable. It is ſo totally different from thoſe of every other intelligent being in quality, as well as in degree and in quantity, that it is not only incommenſurate to them, but does not admit of being meaſured. If, then, I divide the underſtanding of God into ſeveral terms, to make one real infinite number by adding theſe terms together, or to ſhew the poſſibility of ſuch a number, my diviſion is merely chimerical, and, as I can aſſume no actual determinate

determinate unity, I can no more produce a number of unities, than I could produce a number from an arbitrary diviſion of an abſolute unity, if I were to ſuppoſe it ſomething real. Now when I conſider the univerſe and its parts, I have things actually exiſting diſtinct from one another, I have real not imaginary unities, and theſe muſt conſtitute a number: but if theſe actually conſtitute a number, they muſt bear a proportion to unity, and there is no contradiction in ſuppoſing this proportion ſtill greater and greater: conſequently this number cannot be infinite in the foregoing ſenſe of the word.

Notwithſtanding all its difficulties, however, if we would ſolve this queſtion with ſome degree of certainty, I believe we muſt have recourſe to a perfect univerſe. God would produce the moſt perfect, whence it muſt contain as many and as great things as poſſible, and, which is of moſt importance, theſe muſt have the greateſt poſſible harmony with each other. The number of actual things harmonizing with one another contributes not ſo much to perfection as the degree in which they harmonize, with this diſtinction, that whilſt perfection increaſes with the number, ſo long is a greater number requiſite to the attainment of the greater perfection. The queſtion, then, will come to this: does infinite extenſion, or an infinite number of actual things contribute moſt to the perfection of the univerſe? The latter can only be true, if an infinite number admit greater harmony than a limited one. We cannot but make the following concluſion: were only one individual moſt perfect univerſe amongſt more leſs perfect poſſible, it would be an exception to the rule of the greateſt perfection, and a ſyſtem of actual things derogatory to the perfection of the whole would be poſſible. Other ſyſtems, beſides thoſe which actually are, preſuppoſe, beſides the altered ſyſtems, other exiſting things. Hence all that is poſſible does not actually exiſt, and this world is not infinitely extended, becauſe, if it were infinitely extended a greater perfection would be loſt.

I muſt ſtill obſerve, that infinite extenſion is not to be confounded with infinite duration. Of this it is clear, as the late Reimarus has ſufficiently proved, that it can never be infinite by ſucceſſions, even though they proceed without end. So we perceive Hartley cannot deduce an infinite univerſe from the poſition of ſufficient cauſes: as the queſtion, why did not God create more exiſting things than a limited univerſe contains? may always be anſwered thus: the greateſt perfection and the wiſeſt ends required no more, nay would admit no more.

PROP. CIII. p. 316. To follow Bodily Misery.

On the spiritual Happiness of Man.

When we desire pure happiness, we know not what we desire, we are ignorant of ourselves and of our nature, and how far we are capable of happiness. It is even difficult for us to form an idea of pure happiness. The most general opinion is, that we are to understand by it an uninterrupted state of pleasing sensations, at least an everlasting exclusion of all pain and misery, or such a state as a man would not wish to exchange for any other. If we admit that the happiness of man be compounded of sensual and mental enjoyments, to procure him pure happiness, the fountains of both must flow uninterruptedly, nor must one bitter drop be mixed in the stream of pleasure that he quaffs. According to this datum his pleasures must be continually increasing, and never diminished: for the diminution of pleasure, or a less degree of it, is pain, which would detract from pure happiness. Or, if this were not the case, he must remain unalterably in the same degree of enjoyment, and at the same time his taste must not be weakened by its continuance; his capacity for pleasure, and the stimulus of the object, or its power of pleasing him, must ever possess the same force and efficacy. Both the former and the latter supposition are repugnant to the actual, and, in my opinion, the essential constitution of nature. According to this we must conceive every pleasure to be an enjoyment (this is indisputably the case with sensual pleasures at least) and every enjoyment presupposes a desire, every desire a need. The sensation of a need differs from the sensation of enjoyment, and the state of desire is, compared with the state of enjoyment at least, an unpleasant sensation. The man, then, who would enjoy, and find pleasure in enjoyment, must first desire, and in desiring and needing he must find pain and disquietude. If this pain and disquietude of desire be frequently little noticed by us, it is because they are greatly lessened by the certain expectation of approaching pleasure, and the anticipation of enjoyment. They cannot, however, be wholly annihilated; for, if they were, the taste of enjoyment would be equally imperceptible. We only obtain a lively sensation of enjoyment by comparing it with a preceding want, or with its opposite. Thus much is certain from experience, that the sensation of health, which is to man the greatest of all sensual pleasures, and which should be, and in certain circumstances actually is, the sum of all, is reduced to an almost imperceptible and indifferent sensation, if we have not an opportunity of comparing it with the opposite sensations of pain and sickness. It only rises to that noticeable height and force which we call pleasure, when it follows, or admits of a lively comparison with its opposite sensation. I do not assert that comparison is absolutely the sole cause of pleasure. On the contrary, I am much inclined to admit, that there is something positive and absolute both in sensual and mental pleasures;

pleaſures; though I muſt confeſs that it is extremely difficult to give an exact ſtandard for them, and that this ſtandard muſt be different in each individual. In general terms I would ſay, that the more or leſs obſcure perception of order in the body and mind conſtitutes abſolute ſenſual and mental pleaſure. Where this order is perceived to preponderate in the body or mind, there would I place the beginning or limits of pleaſure: thence forwards the ſenſations riſe through the different degrees of pleaſure to ecſtaſy and bliſs, whilſt backwards they proceed through the various degrees of pain to conſummate wretchedneſs. Still the compariſon of our ſenſations with their oppoſites unqueſtionably contributes much to their riſing or ſinking in this ſcale; and experience ſeems to tell us, that in ſenſual enjoyments we are indebted to compariſon for our principal pleaſures.

If we conſider mental happineſs, and particularly its moſt important part moral happineſs, or the ſum of thoſe pleaſures which ariſe from the perfect conſciouſneſs of ourſelves, from the faculty of forming general ideas, from the remembrance of the paſt, proſpect of the future, and the capability of advancing towards perfection by means of theſe, compariſon ſeems here far leſs neceſſary than in ſenſual happineſs. Still here there is a need, and from this need ariſes an impulſe to act; conſequently ſome diſquietude is neceſſary. This diſquietude preceding action, if it be not abſolutely painful, cannot, on compariſon, be equally pleaſing with the conſciouſneſs of having attained the end. Now if this progreſſive round of efforts and attainments be continually recurring, there muſt be a ſucceſſion of more and leſs pleaſing ſenſations. Thus, then, here alſo pure happineſs, in the ſtrict ſenſe of the word, is inadmiſſible. It is evident, too, that in proportion as the difficulties of attaining the ends propoſed, and conſequently the preceding diſquietude, are increaſed or leſſened, the pleaſures of attaining thoſe ends will be increaſed or leſſened alſo. If we deprive a man of the dangers of the combat, we rob him of the reward of victory.

How little pure happineſs is compatible with our nature may alſo be conceived from the degree of perfection which is eſſential to it. Man, as experience tells us, when he enters into being, has nothing but capacity, and the foundations of what he is to be. This capacity muſt firſt be unfolded, theſe foundations built upon. He muſt acquire expertneſs by practice, become by degrees what he is capable of becoming, and probably grow and improve without ceaſing. If this be his deſtination, in the beginning of his exiſtence he muſt be placed at the loweſt point of his perfection, or his degree of perfection muſt be allowed as wide a ſphere of activity as poſſible. For argument's ſake, let us ſuppoſe, that man can go through a hundred degrees of perfection in the whole ſphere of his exiſtence; it is not probable, that he ſhould be placed at once in the middle or fiftieth, without ever having paſſed the firſt. Were it ſo, we might aſk: why in this, and not in a higher? and if we take a higher, the queſtion would ſtill recur, till we arrived at the laſt. To avoid it we muſt either take the higheſt or the loweſt. Thus the perfection of which man is capable being given, the firſt degree from which

he ſets out on his progreſs to that perfection muſt be, in compariſon with the ſecond, third, &c. imperfection, that is, ignorance, inexperience, and the like, or moral evil with proportionate phyſical evil.

We will endeavour to make the matter ſtill clearer. According to the benevolent plan of his Creator, man ſhould be capable of the greateſt poſſible happineſs, and indeed by his own free agency. Now the queſtion naturally ariſes: when may the actions of a created being be termed free, and when not? It needs no proof, that a knowledge of good and evil, of the good or bad conſequences of an action are neceſſary, before ſuch an action can be undertaken freely, or from choice. This knowledge cannot be merely hiſtorical, but it muſt have a force, vigour, and certainty, inevitably to produce the action, and muſt be a man's proper knowledge. But this can only be obtained by experience. Let us caution a child, that has never known pain nor received an injury, ever ſo ſtrongly againſt fire, let us exert ourſelves ever ſo much to convince him that it will burn him, whilſt he has never been burnt, nor felt any ſimilar pain, all will be inſufficient to guard him againſt it. Let it not be ſaid, that the truſt or confidence which we uſually place in our ſeniors or friends will ſufficiently ſupply the want of proper experience. This confidence, if it could take place in all caſes, muſt be founded on experience: ſome caſe muſt have occurred, in which we received injury from refuſing confidence to our warning friends. Not to mention, that ſo complete an inſtruction as to extend to all the occurrences of life, to all our ſenſations, and to all our ideas, is not poſſible. Daily example evidently ſhews us how much our own experience is preferable to the inſtructions of others. It requires but little reflection for us to perceive, that our proper experience would be abſolutely neceſſary, to make the knowledge and inſight of others become our own, and ſerve as incentives to our actions. In reality we do not underſtand the words in which neceſſary advice or wholeſome warning is given us, if we have not in ſome caſes acquired a knowledge of the thing itſelf, which is only to be obtained by experience. All the advantage we can derive from confidence in others, or the principle of faith, which is as neceſſary and uſeful in common life as in religion, is its freeing us from the difficulty and danger of making experiments on every new occurrence, and enabling us to avail ourſelves of the knowledge and inſight acquired by the experience of others, when we have previouſly had analogous experience of ſimilar caſes, and ſo much knowledge and inſight, that we underſtand and muſt follow the good advice of others, whilſt we have not a complete knowledge and experience of the ſubject ourſelves.

This being admitted, it cannot be denied, that all the actions of an intelligent agent muſt be connected together, or form one whole. Conceptions produce actions, and theſe again produce conceptions, till a man has collected his whole ſtock of experience, filled up the meaſure of his activity, and quits the ſtage of life. Many of his conceptions are no doubt borrowed, and not the reſult of his own experience; but theſe he will not appropriate, theſe will produce no action, till he perceives their connection with what himſelf has experienced. Our confidence in others enables us to ſupply the

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place of our own inſight and experience with theirs, only when by reflection and uſe we have interwoven them with ours. New diſcoveries make the moſt rapid progreſs when we can moſt readily comprehend them from what we generally obſerve, and find to be true. The conceptions we derive from others cannot be ſo complete and forcible as thoſe produced by our own experience, unleſs they cauſe an equal action. Our faith or confidence in thoſe who impart them to us extends only ſo far as to induce us to apply them to uſe, and bring them to the teſt of experience. Only from this trial and reflection do they become our own.

Hence it is evident why man, at his birth, is placed on the loweſt ſtep of the perfection of which he is capable, and muſt be able to make himſelf unhappy by his agency. If no original bias be imparted to the human mind, and if its actions be free, the moſt ſimple action muſt be its own reſolve, and conception which produced it muſt have been its own. Whatever ſtep, except the loweſt, we place at the beginning, we muſt admit innate ideas, which man did not procure for himſelf, which were to him as dead treaſure, and could not be the grounds of agency. To this, every thing, except the faculty of thinking and willing, muſt be his own work.

This is equally true with reſpect to the body. In man this can have no artificial impulſe, no innate activity, like that of beaſts. If all its arbitrary motions accord with the free reſolves of the mind, it muſt be formed, accuſtomed, and exerciſed to all the free actions of man, whatever be their nature (without any difference whether they tend to his happineſs or unhappineſs) and conſequently in this view it muſt be placed on the loweſt ſtep of that perfection of which it is capable; otherwiſe diſagreements muſt ariſe between the mind and its companion.

Can it any longer remain a doubt, whether man, as man, be capable of pure happineſs? To be happy, he muſt be free, he muſt be an agent. To be an agent, he muſt make experiments, he muſt examine what is good and what is bad, he muſt taſte pleaſure and pain, acquire expertneſs, and make himſelf happy even at the peril of being unhappy. This diſpoſition of things, however, is productive of happineſs far greater at bottom than that which is termed pure, were ſuch happineſs poſſible to a finite and mutable being. Every ſtep towards perfection produces an immediate pleaſure, in as much as it is an exerciſe of the powers, and an application of activity: though this pleaſure, as I have already obſerved, is inferior to that ariſing from the attainment of the end propoſed. A certain diſquietude remains, not to be confounded with the notion of pure happineſs in the ſtricteſt ſenſe of the word, but which actually increaſes the ſum of happineſs conſidered in the whole, as it makes our perception of it more vivid by compariſon. But the true ſource of mental pleaſure is the contemplation of perfection attained. This pleaſure is exalted by comparing it with the leſs that preceded, and by the remembrance of what a man was ſhewing him what he is, if he conſider what he is as the fruit and conſequence of his own endeavours, and be convinced that in all he did his actions were free. This reflection appears to me an inexpreſſible addition to the pleaſures which conſtitute the mental happineſs of man.

Finally, we muſt bring the proſpect of the future into our calculation of mental happineſs. Did man perceive nothing before him but a ſtate wholly unalterable, his nature muſt be changed, its progreſs and accompliſhment, and the active impulſe of his mind to extend itſelf would be done away; ſince, in this view of the future, his preſent happineſs would admit not of being augmented or impaired. But were we ſo framed, that we could foreſee only a diminution of our happineſs, or a reſtricted increaſe of it, the proſpect of futurity would be painful or unpleaſant, and our preſent enjoyments leſſened and diſturbed. In the eye of one who contemplates the whole courſe of our lives, as our author well obſerves, we derive from our nature a balance of happineſs; but to us, conſcious of our progreſſive courſe and ever hoping a greater happineſs, to us, who enjoy pleaſure in every ſtep we take towards perfection, which enjoyment is inceſſantly increaſing, this nature gives more true pleaſure than a pure, unalterable, and on that account limited happineſs could ever beſtow.

This view of the mental happineſs of man, conſidered as the ſum of all the pleaſures which the imagination forms from the remembrance of the paſt and proſpect of the future, will probably afford us a ſolution of the queſtion: is man moſt happy or miſerable? The ſafeſt manner of determining it would certainly be to let the general experience of mankind decide; but its voice is not ſufficiently clear. Inſtead, therefore, of a poſitive anſwer, which is not to be obtained, we may be permitted to have recourſe to preſumptive proofs. Such a preſumptive proof of the preponderance of happineſs the very increaſing nature of mental pleaſure ſeems to me to afford. This is capable of conſtant augmentation, and if man have but an obſcure conception and preſentiment of the future extenſion of his happineſs, ſtill more if he have a clear idea of it, he would upon the whole obtain a very great balance of happineſs in his preſent circumſtances, and throughout the whole courſe of his exiſtence in general, as this conception of future increaſing happineſs acquired clearneſs, certainty, and ſtrength in his mind. However dubious and uncertain the calculation of the number, nature, and degree of his pains and pleaſures may be, and however unable we may be to determine whether he be more happy or miſerable, when we contemplate his happineſs and miſery in a given point of time, we cannot in the leaſt heſitate to allow him a balance of happineſs when he has a proſpect of a boundleſs futurity, in which he has to expect a happier fate, and in general more good than he has ever yet enjoyed. When the underſtanding of a man is ſo exalted as to look into futurity, and make himſelf an intereſt there through fear and hope, in calculating his happineſs we muſt no longer confine ourſelves to his preſent pains and pleaſures, but we muſt take into the reckoning his hopes and fears, add them to or ſubtract them from his preſent pleaſures and pains, and take the balance of the whole for the true ſum of his actual happineſs. This operation, it is true, offers great difficulties; as to calculate accurately the good or evil of thoſe hopes or fears, their duration, intenſity, and degree of certainty muſt be eſtimated. Thus to compute them with mathematical exactitude is not practicable. It is ſufficient for our purpoſe, that, as we learn from general experience, the greater

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part of mankind fear a change of circumſtances when they are happy leſs than they hope it when unhappy, and are more inclined to form pleaſing and conſolatory than comfortleſs and unpleaſing proſpects of futurity. This, I believe at leaſt, is the general propenſity of mankind; and as the gloomy proſpect of the future is naturally more unwelcome to the mind than the joyful one, it is not ſo laſting, or retained ſo long in it, if the body enjoy but a tolerable ſtate of health. All pleaſures of the imagination, indeed, depend on the ſtate of the body, and are ſo connected with its well being, that whilſt its degree of health overbalances that of ſickneſs, pleaſing images, particularly of the future, muſt predominate over unpleaſing and mournful ones. The ſolution of the queſtion, therefore, depends in great meaſure on this, whether there be more healthy or ſick men in the world, and whether men upon the whole experience moſt painful or agreeable ſenſations from their bodies. To this experience gives us a clear and preciſe anſwer. What our author ſays of the gaiety and joyfulneſs of youth, whilſt their bodies are in a growing ſtate, in anſwer to the queſtion, agrees with this. It is unnatural and unuſual to obſerve a laſting diſcontent or ſorrow in children or young perſons. Their griefs are tranſient, and their predominant propenſity is to mirth and jollity. Even though we ſhould not allow, with ſome philoſophers, that the agreement between the welfare of the body and cheerfulneſs of the mind is owing to ſome obſcure perceptions which the latter has of the order and perfection of the former (which however appears to be very juſt) ſtill the fact itſelf is ſufficiently aſcertained by experience. Thus the greater part of mankind are far more inclined to hope than fear, in their views of futurity. Were it not ſo, it would appear, that our miniſters, whoſe buſineſs it is to ſhew man the road to true happineſs, would be far more ſucceſsful, and would have much more occaſion to comfort and conſole, than to admoniſh and reprove.

But were the propenſity of the greater part of mankind rather to hope than fear the future allowed to determine the balance of happineſs over miſery, it might be objected, that happineſs built upon this foundation would be very inſecure and uncertain, that on a juſter knowledge and more extenſive inſight into things it muſt diminiſh, and that by enlightened reaſon it muſt be deſtroyed. To this I reply, firſt, however feeble the foundation on which this happineſs is built may be, ſtill, whilſt it ſtands, it is as effectual as if it were ever ſo true and ſubſtantial: for a falſe imagination, as long as it is conceived to be true, procures as great a pleaſure as if it were true in reality. Secondly, before a man's hopes or fears with their foundations become ſuſpected, he muſt have acquired an improved underſtanding, and this particularly when ſupported by the chriſtian revelation, muſt have relieved him from the diſquiets which he previouſly felt, and, in the ſame proportion in which theſe diſquiets were ſtrong and well-founded, have led him to true comfort, to a ſure proſpect of the future, and to ſuch a well-founded hope, as, added to the ſum of his actual happineſs, muſt give it an infinite ſuperiority over his actual miſery.

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Were I inclined to admit a ſituation in which the balance of miſery ſhould preponderate, it would be that middle condition between half and complete knowledge of a future, between certainty and uncertainty of ſuch a ſtate, in which a man foreſees and conjectures that there is a futurity, but doubts of his participation in it, or is fearful of his deſtination therein. Moſt miſerable of all muſt I think him who has made it his intereſt to deny this futurity, and who is forced to exert all the powers of his mind to reaſon it away. Such a man has only the mournful reſource of plunging into beaſtly ſenſuality, abjuring all moral and mental enjoyments, and confining all his happineſs to ſenſual pleaſures; or, ſhould he unfortunately ſucceed in convincing himſelf by his ſophiſtry of the non-exiſtence of a future ſtate, he muſt ſeek an indemnification in an imaginary futurity, form to himſelf ſome pleaſing intereſt in it, and faſhion out gorgeous images of the fame and honour beſtowed on him by poſterity, to ſupply the place of reality Imperfect as this attempt to create an overbalance of pleaſure muſt ever be, ſtill it is a proof, that the mind is ſo conſtituted as always to fly to happineſs whilſt under the preſſure of miſery.

PROP. CIII. p. 316.

On the Proofs of God's Benevolence.

The five propoſitions which our author has advanced (p. 322.) to enable us to comprehend the exerciſe of God's benevolence to man, and in particular to explain how finite proofs of the infinite attributes of God are conceivable, include all that can be conceived of them, and are uſeful to throw light on the ſubject. On theſe, however, it may not be uſeleſs to add ſome remarks.

The firſt ſuppoſition, *that each individual ſhould be always happy infinitely*, is impoſſible, ſince in that caſe every individual muſt be an infinite being, muſt be God. If we take the word infinitely in another ſenſe, as an unceaſing duration of an immutable and limited, or of an increaſing happineſs, it could only apply to the infinite moſt perfect being, and conſequently is impoſſible.

The ſecond, *that each individual ſhould be always finitely happy*, that is, *in a limited degree, without any mixture of miſery, and infinitely ſo in its progreſs through infinite time*, is equally impoſſible, as requiring a pure or perfect happineſs of which no finite being is capable. But that infinity here meant, which conſiſts in an infinite number of finite happineſſes, is nothing more than a mathematical infinity, or number continually increaſing, which may properly be applied to a finite being.

The third, *that each individual ſhould be infinitely happy, upon the balance, in its progreſs through infinite time, but with a mixture of miſery*, differs from the preceding in admitting

ting a portion of evil. This is alſo poſſible whilſt it requires only ſuch an infinity as a finite being is capable of.

According to the fourth, *that each individual ſhould be finitely happy in the courſe of its exiſtence, whatever that be, but with a mixture of miſery, and the univerſe be infinitely happy upon a balance*, we muſt ſuppoſe, that the being of man, ſo far as he is ſuſceptible of happineſs, may ceaſe or be annihilated. In the ſenſe in which infinitely is here taken, or ought to be taken, this only can render his happineſs finite. This differs from the foregoing ſuppoſition in admitting a total end to man's happineſs, or an annihilation of his nature. It is difficult, however, to reconcile the latter part of this ſuppoſition with the former, that the univerſe is upon a balance infinitely happy, whilſt beings capable of happineſs are annihilated, unleſs we ſuppoſe happineſs and non-entity to mean the ſame thing. The univerſe here ſpoken of can be nothing but the ſum total of intelligences, or beings capable of happineſs. How infinite happineſs can in any ſenſe be aſcribed to this intellectual world, when ſo conſiderable a part of it as the human race is blotted out of it, is inconceivable. On ſuch a ſuppoſition, the happineſs of the univerſe cannot be infinite, either in a metaphyſical or mathematical ſenſe of the word. Conſidered in a certain point of time it is not ſo great as it might be; ſince if mankind exiſted, and were happy, the ſum would be augmented, and this augmentation is poſſible. What has been, and been happy, may be again, and be again happy. In a mathematical ſenſe alſo, the continual progreſſive ſeries of happineſs of intelligent beings cannot be ſo infinite, if a part of them be annihilated, as it might be if that part ſtill continued to exiſt. Our author remarks, that many thinking, ſerious, benevolent and pious perſons are much inclined to this ſuppoſition. Thoſe who favour it, however, will not willingly admit a limited duration of exiſtence: and if this, or the annihilation of mankind be excepted, the fourth ſuppoſition is the ſame with the third. If our author would aſcribe to human happineſs any other kind of infinity than that which conſiſts in continued or inceſſant progreſſion, he runs into a complete contradiction, nor is it conceivable, that the happineſs of a finite being, any more than its other qualities, ſhould be actually unlimited, conſidered in any particular point of time, or, like the happineſs of an infinite being, incapable of increaſe. It is proper, to make this remark, as the reader may eaſily be miſled by the abuſe of the word infinite, which expreſſes two different and oppoſite ideas by the ſame term. The one can only be conceived by an infinite intelligence, and properly, too, only of itſelf. Could the infinite intelligence conceive ſuch an infinity applied to the happineſs of its creatures, theſe, as it appears to me, muſt be equally eternal with it, both *a parte ante* and *a parte poſt*; then might they, in reſpect of their eternal and infinite duration, be conceived as infinite by it, ſo far as it overlooks, and, if I may ſo ſay, comprehends them at a ſingle glance. In any other ſenſe, or only ſuppoſing finite beings to have had a beginning, their happineſs cannot once be conceived as metaphyſically infinite by the infinite intelligence. If this be juſt, the abatement, which diſtinguiſhes the third

third ſuppoſition from the firſt and ſecond, cannot find a place in the fourth in any poſſible ſenſe: I ſay, in any poſſible ſenſe. That the infinite happineſs of man aſſumed in this ſuppoſition ſhould be changed into an abſolute metaphyſically infinite happineſs, as the happineſs of God is, muſt be no leſs impoſſible, than that a finite being ſhould be changed into an infinite one, man into God. The happineſs of the creatures muſt ever, and to all eternity, remain circumſcribed, and capable of farther increaſe, whilſt it can never reach the infinity of God's, though it continually approach it. But if we underſtand infinity when applied to human happineſs to be of ſuch a nature as is conceivable, that is, a perpetually increaſing happineſs, compared with which the preceding or accompanying evil is in ſuch a continually decreaſing, and ultimately ſo ſmall as to be imperceptible, proportion, ſo that in a practical view it is to be conſidered as nothing, we can conceive the happineſs of man, according to the fourth ſuppoſition (if we exclude the idea of annihilation), to be infinite, in the ſame ſenſe as it is poſſible according to the two firſt.

An infinite balance of happineſs in the univerſe is ſtill more difficult to be defended on the fifth ſuppoſition, *that ſome individuals ſhould be happy and ſome miſerable upon the balance, finitely or infinitely, and yet ſo that there ſhould be an infinite overplus of happineſs in the univerſe.* An overplus of happineſs is poſſible, even though ſome beings ſhould be abſolutely and perpetually miſerable, or though ſome ſhould be annihilated after having received more evil than good in the period of their exiſtence. But then the number of beings which in the courſe of their exiſtence receive more good than bad muſt be greater, and the good they receive muſt be at leaſt as multifarious and weighty, or even more ſo, than the evil which falls to the ſhare of the more unfortunate, and not leſs in quantity or degree. Now an infinite overplus of happineſs, with any exception, which a number of miſerable beings muſt make in the ſum of the happineſs of the univerſe, is impoſſible to be conceived otherwiſe than as the ſum of miſery bears a ſmall and imperceptible proportion to the ſum of happineſs, or as the number of the unhappy, and the evils they ſuffer, compared with the number of the happy, and the pleaſures they enjoy, are not to be reckoned in a practical view.

Were ſuch an overplus of happineſs ſtyled infinite, as being the greateſt poſſible from the limited nature of all created intelligent beings, I would grant, that ſuch a greateſt poſſible happineſs might be relatively termed infinite: but then it muſt firſt be ſhewn, that, from the ſuppoſition itſelf, a finite or infinite overplus of miſery to ſome intelligent beings muſt exiſt, and that the idea of finiteneſs and circumſcription requires an overplus of miſery in ſome, whilſt the ſame finiteneſs requires it not in others. In my opinion, this is not to be ſhewn from a general view of things. For it muſt be demonſtrated from the finite and limited nature of intelligent beings in general. But whilſt both thoſe which are happy, and thoſe which are miſerable, have all things in common, the conſequences deducible from this idea of finiteneſs would be equally applicable to all intelligent beings; that is, we muſt infer an overplus of miſery either to all or to none.

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It is worth while to examine the particular grounds that philoſophy may allege for or againſt ſuch a ſuppoſition. I will endeavour impartially to diſplay the moſt important that may be brought forward on either ſide, without attempting to paſs a judgment on them.

From rational determinations of the attributes of God and of the nature of intelligent beings, and from analogy, or experience, theſe grounds muſt be taken. If we contemplate the attributes of God, that perfect benevolence, which we muſt aſcribe to him, ſeems in no wiſe to favour the ſuppoſition, that he ſhould ſacrifice one part of his creatures, equally capable of an overplus of happineſs, to the reſt, or that he ſhould build the welfare of certain intelligent beings on the deſtruction of others. The idea of the moſt perfect and conſequently impartial benevolence leads us directly to an oppoſite concluſion: we are reduced, then, to admit ſome other attribute whereby God's benevolence, or its influence on the unhappy part of the creation, is limited; or that, notwithſtanding the perfection of God's benevolence, the nature of finite beings is ſo framed, and muſt of neceſſity be ſo framed, that one part could not be happy, but at the expence of the other.

Now on the other hand it may be ſaid: ſuch perfections of God, which ſet bounds to his benevolence in its influence on the unhappy, are righteouſneſs and juſtice. From theſe attributes God has an infinite ſatisfaction in truth and order, and an equally infinite diſlike to whatever departs from order and truth. Both theſe are in the higheſt degree active. Such creatures, therefore, as deviate from truth and order cannot but experience the effects of God's diſpleaſure, ſo far, and as long as they continue to deviate from them: and ſince God preſides as a lawgiver and ruler over his intelligent creatures, he muſt puniſh thoſe that rebel againſt him, he muſt maintain the authority of his wiſe and benevolent laws, and his juſtice muſt ſacrifice to the welfare of the whole thoſe who will not amend.

To this it may be replied, that the attributes of righteouſneſs and juſtice, if properly conſidered, are by no means ſo adverſe to benevolence as might be inferred from what precedes. The moſt righteous and juſt ruler may alſo be the moſt benevolent, if he be the moſt powerful. His benevolence, it is true, would not be diſplayed in a ſimilar manner to his dutiful and undutiful ſubjects: he would not reward the latter as the former; but his good-will towards them would ſhew itſelf in ſuch diſpoſitions and regulations as would render them equally obedient, and by theſe benevolent, though forcible meaſures, would he reveal his juſtice and righteouſneſs, maintain the authority of his wholeſome laws, and promote the well-being of his whole kingdom. He muſt puniſh; but his puniſhments would be corrections. We may admit, not without grounds, that the diſtinction betwixt puniſhment and correction, the end of the former being to prevent the ſpreading of wickedneſs by warning and deterring others from it, and of the latter, to amend thoſe to whom it is applied, is founded on the weakneſs of mortal rulers, and not applicable to God. Mortal rulers are not always able to puniſh

in ſuch a manner as to amend thoſe on whom they inflict puniſhment. They cannot in the ſame action conſult the private advantage of the individual, and the public benefit of the whole, ſo that they are obliged to diſtinguiſh the two, and, for the general good, ſacrifice the leſs to the greater. Both theſe ends, indeed, may be compatible with each other. We may ſo puniſh, that the puniſhment may be a mean of reclaiming the puniſhed, and at the ſame time prevent the ſpreading of vice by ſerving as a warning to others. Thus when we diſtinguiſh puniſhment from correction, this diſtinction will only hold, it appears, whilſt we ſpeak of human correction and puniſhment: ſince the diſtinction ariſes not from the nature of the things themſelves, but from the weakneſs of mankind. Even amongſt men, a ſovereign would unqueſtionably be deemed good, wiſe, and juſt, who knew how to puniſh ſo as not only to prevent tranſgreſſions, hinder the ſpreading of vice, and maintain order, peace, and ſecurity throughout his dominions, but likewiſe to amend the criminal himſelf, and render him an inſtrument of his own happineſs, and an uſeful member of ſociety, by the ſame puniſhment which ſerved as a warning to others. But if this cannot be done, and the ſovereign, by ſhewing kindneſs to a ſingle criminal, muſt do an injury to the whole community, in preferring the leſs to the greater good, being unable, from his limited power, to prevent the extenſion of vice, but by the ſacrifice of the guilty; the idea of the juſtice of puniſhing, as a virtue in the ſovereign, originates in his want of power; a juſtice, which, though beneficial to the whole, is a hardſhip to the party that ſuffers, and conſequently not ſo perfect and good as it would be, were it at the ſame time beneficial to ſociety and to the offender. Let it not be ſuppoſed, that this inability to correct in every caſe of puniſhment is ſo univerſal as to extend to God: it is proper to man alone, and proceeds from the following cauſes. We have not time, ſpace, and means ſufficient ſo multifariouſly to diverſify our corrections, as to place the offender in as many various unpleaſing ſituations as are requiſite ultimately to bring him to a ſerious reflection on his real good and permanent attention to it. We cannot render his puniſhment ſo intenſe as to make the deſired impreſſion upon him, without its becoming fatal. Finally, too, we are perſuaded, that certain offenders, particularly dangerous ones, muſt be puniſhed with death, if we ſeek the ſecurity of ſociety. Would ſlighter puniſhments ſerve in ſuch caſes, puniſhments that would not deſtroy the tranſgreſſor, but preſerve him an uſeful member of ſociety, no rational or well-minded man would juſtify capital puniſhments, but hold them equally pernicious and deteſtable. We may even hope, that, when the benevolent and more enlightened eye of philoſophy ſhall have inſpected that important part of legiſlation, the diſtribution of puniſhments, this will become leſs and leſs deſtructive, without being leſs efficacious, and be gradually converted into correction of offenders. Unleſs we aſcribe human weakneſs, and the ſhackles of humanity, to that all-wiſe and omnipotent God, whoſe moral ſovereignty over his intelligent creatures is not confined to the narrow limits of time, who has unnumbered and to us inſcrutable ways of leading his ſubjects to his purpoſes, who,

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ſince they actually are and muſt eternally remain dependent on him, can place them in ſuch circumſtances that his deſigns in them, and through them in others, muſt be accompliſhed, we are forced to allow, that with reſpect to him our diſtinction betwixt puniſhment and correction is inapplicable, and that all his puniſhments at leaſt may be at the ſame time corrections. And ſince this may be, we ought, from the perfection of his benevolence, to expect, that ſo it will be.

The happineſs of mankind, will it be ſaid again on the other hand, requires a conſtant compariſon with its oppoſite. If then there be intelligent beings upon the whole happy, there muſt be others on the whole unhappy, or the former would want a ſtandard by which to meaſure their happineſs. They would not know their good, and, in the enjoyment of it, that exalted taſte would fail which muſt give them a balance of happineſs. If it be true, as experience ſeems to ſhew, that what we name pleaſure is only known and eſtimated by compariſon, and indeed by compariſon with its oppoſite, it would be impoſſible for Almighty Goodneſs, to give bleſſed ſpirits that exalted degree of happineſs which they derive from compariſon, by any other means than by contraſting them with miſerable ones. Should it be ſaid, that envy and malice are the true grounds of this high taſte of happineſs; this it muſt be confeſſed is in many inſtances the caſe with man, but it would be making the concluſion too general. Contraſt undeniably does great ſervice where its effect is unmixed. Compariſon ſets this thing on one ſide, and that on the other, and to our minds at leaſt this proceſs is familiar. The valetudinarian fancies himſelf in health when he finds a man ſtill more diſeaſed. The poor man thinks himſelf wealthy when he meets a beggar. Joy and ſorrow, happineſs and miſery, friendſhip and hatred, are mutually increaſed by compariſon. We muſt confeſs, that envy and malice frequently mingle in our contemplation of the happineſs or miſery of our neighbours, and carry an innocent propenſity of nature to an immoderate and pernicious height. Still it is not to be maintained, that all thoſe pleaſures which we derive from an advantageous compariſon with their oppoſites, or to ſpeak with more preciſion, the augmentation of our happineſs from comparing it with that of others, muſt be excluded from true happineſs. Is our philanthrophy ſtifled when we ſee others unhappy, not being ſo ourſelves? As long as the conſciouſneſs of ſelf remains, whenever happineſs in ourſelves is contraſted with miſery in our neighbour, they will heighten each other, and we ſhall involuntarily return from the unpleaſing contemplation of our unhappy neighbour to the more joyful proſpect of our own happineſs, with a pleaſure that will be at leaſt felt, however obſcurely.

To this ſpecious argument for ſacrificing a part to the whole may be replied. If our pleaſures become more ſenſible and lively through the contemplation of a want of them, or of their reverſe, in others, we muſt ſtifle the ſentiment of benevolence towards our neighbour in our minds at leaſt as long as the compariſon of advantage laſts: for as ſoon as that ſentiment becomes predominant, and excites true compaſſion, the increaſed taſte of our own happineſs would be depreſſed and over-ruled by the painful

participation of the miſery of others. At leaſt this pleaſure ariſing from an advantageous compariſon would ever become more and more inſipid to a perſon in proportion as he was leſs ſelfiſh and the more his heart expanded with benevolence and compaſſion, till at length, as theſe ſentiments increaſed, it would be totally loſt in a ſenſation of pain. At ſight of the ſufferings of congenial ſouls, every ſufficiently enlarged mind muſt endure what a huſband, a parent, would feel from the miſery of a wife or child. If the virtue and benevolence of happy intelligences have attained this height, their pleaſures can no longer be augmented by compariſon with foreign miſery (to them, indeed, no one's miſery would be foreign) nay, it would be diminiſhed and deſtroyed by it. This exalted benevolence is by no means chimerical, or unattainable to man. The aim of all the inſtructions we receive from God by his moral government in the courſe of nature, and by revelation, is to lead us to an exalted benevolence, and from the love of ſelf to that of God and our fellow-creatures. Experience teaches us this in the examples of religious and good men, whoſe hearts have been enlarged and benevolence increaſed through the aid of religion, which muſt naturally follow from ſtudying the doctrines of chriſtianity, and imitating the univerſal benevolence of God, and the love of our Redeemer. The happineſs of man requires a compariſon, to be felt as happineſs with the greateſt force. That is true. But ſo far as this compariſon is neceſſary and efficacious to the perception of pleaſure, experience of our own miſery or even an inferior degree of happineſs will ſuffice. This indeed, it ſeems, ought not to be wanting, if we would properly value our actual happineſs. But if we eſtimate our happineſs from our own experience of the want of it, or of its reverſe, the compariſon of it with the miſery of others would be ſuperfluous. Neither could it ſupply the abſence of our own experience: for he who has felt no pain can receive no deep or laſting impreſſion from the ſufferings of another. Beſides, ſhould we be accuſtomed to behold the ſufferings of others, they would gradually ceaſe to effect the propoſed end. In proceſs of time we ſhould be as little moved by them, as an European in the American plantations is by thoſe of a negro; or find our pleaſures as little exalted by them, as thoſe of the planter by the miſeries he inflicts, ſo common though ſo diſgraceful to human nature. As the latter is accuſtomed to conſider the ſuffering ſlave as a creature of an inferior order, and no way to be compared with himſelf, we may preſume, that happy beings would look on their fellow-creatures condemned to eternal miſery in a ſimilar point of view, and as beings with whom they could admit of no compariſon. But ſhould their ſympathy be not wholly deſtroyed, and the ſorrows of the miſerable make ſome impreſſion upon them, ſome painful ſenſations muſt at leaſt mix with their ſelfiſh pleaſure, and abate the pride of their triumph.

Let us now conſider what may be ſaid in oppoſition to this. In the firſt place, every painful ſenſation, and thus the painful ſenſation of compaſſion, does not abſolutely leſſen the ſum of happineſs, ſince there are painful ſenſations of ſuch a nature as by contraſt to produce greater pleaſure, and increaſe its intenſity. This is ſtill more the

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caſe with compaſſion, perhaps, the leſs the compaſſionate can baniſh from their minds the ſenſe of their own perfection; and the more they obſerve the imperfect ſtate of the unhappy, the more is this ſenſe augmented. Let us take a more narrow inſpection of the various effects of compaſſion. What paſſes in the mind of a virtuous man, when ſome near relation, notwithſtanding every caution, perſeveres in diſſipating his patrimony in debauchery, and finally, has broken a limb. He will pity his miſconduct, and its unfortunate conſequences. But he will ſay: he has met with his deſerts: it was his own ſeeking: and he will be more inclined to withdraw his hand from the undeſerving wretch, than to relieve his wants. How different would his ſenſations be, if a worthy friend, journeying to do ſome good action, ſhould be plundered, and wounded to death by robbers! How would his ſoul ſhudder! What would he not do, to teſtify his compaſſion, and give him aſſiſtance! Now is not the pain he feels in the latter caſe far greater than that in the former? And what is it that makes it ſo? No doubt the ideas of innocence and merit, and the attachment founded thereon. What, on the other hand, makes the unfortunate wicked man more indifferent to him? Nothing but the inferiority of his worth, and his having deſerved his fate. Let us apply this to the bleſſed and the damned. Suppoſe the latter, in their wretched ſtate, to have nothing amiable annexed to their mental faculties, and to experience a ſevere but merited fate, would the compaſſion of the bleſſed ariſe to ſuch a height as to cauſe a conſiderable defalcation of their happineſs? Would not rather the pain be abundantly compenſated by the heightened conſciouſneſs of their own perfections?

To this the following replication may be made. If the ſum of happineſs be not leſſened by compaſſion, this muſt be proportionably feeble, and the fruit of a ſlight degree of benevolence. Innumerable inſtances occur, in which our own pleaſures would be perfectly inſipid, were they not participated with ſome beloved object; and we ſhould be inſenſible of happineſs, if this object were irreparably wretched. Frequently, it is true, in contemplating wretchedneſs, its being deſerved, and the want of merit and worth in the ſufferer, enfeeble, or even totally ſuppreſs our compaſſion. But it may be queſtioned; is this juſt? Is ſuch an indifference founded on truth, and a right view of things? And is it conſonant to the exalted and diffuſive benevolence of bleſſed ſpirits? The chriſtian religion, and the conduct of its divine founder, ſurely ſeem not to juſtify ſuch indifference and hardheartedneſs againſt ſuffering guilt. This religion of love expreſsly enjoins its followers a ſincere and active compaſſion, in every caſe of wretchedneſs, in every caſe of want, merited or unmerited. Its divine author holds out to us the example of God, who permits his ſun to ſhine upon the righteous and unrighteous, and who ſends his rain both to the juſt and to the unjuſt; by imitation of ſuch examples ſhall we prove ourſelves children of our common Father, who ſhews mercy to all his works. He himſelf has ſhewn compaſſion on the moſt obdurate ſinners, and wept over the blind, the hardened Jeruſalem. He has no where ſet any bounds to the effective compaſſion of his children with regard to

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ſuffering guilt, or to their endeavours to relieve the unhappy, but thoſe which flow from their own inability. Let it not be ſaid, that theſe notions of compaſſion and benevolence which the chriſtian religion endeavours to excite and maintain in her followers, reſpect only our preſent weakneſs and imperfection. She will not, whilſt conducting and faſhioning us to eternal happineſs, cheriſh in our minds notions that would be injurious to us in eternity, and which muſt be ſuppreſſed the moment we enter its confines. Were compaſſion a weakneſs, that we muſt eradicate to attain a higher degree of perfection, the man Chriſt Jeſus, the pattern of divine excellence, would have been exempt from compaſſion. He unqueſtionably was capable of eſtimating moſt juſtly the worth of every man: yet ſtill the greateſt ſinner was ſufficiently precious in his eyes to call forth the utmoſt zeal for his converſion. If the bleſſed be like him, their benevolence muſt be as extenſive, and their compaſſion equally embrace every unhappy being. If we trace the ſource of compaſſion, we ſhall find it originate in the ſimilarity of nature, and the ſimilarity of ſenſation, of creatures ſuffering what we ourſelves ſhould ſuffer in like circumſtances. Similarity of ſenſation ſeems to be, if not the ſole, yet the prime ſource of compaſſion. Where we obſerve in thoſe who ſuffer the ſame feelings as we ſhould experience ourſelves, if there be no intervening obſtacle, our compaſſion is naturally excited. It ſignifies nothing to the point in queſtion what we aſſume as the efficient means of producing compaſſion, or what as the final cauſe of it: it is ſufficient for our purpoſe, that the miſery of creatures bearing ſome affinity to us is alone ſufficient to produce it. If miſery felt by a mind ſimilar to our own excite compaſſion, and if the greater this miſery is the ſtronger this compaſſion, in an exalted ſtate of benevolence, muſt be; the miſery of the ſufferer being rendered moſt exquiſite by being himſelf the cauſe of it, the ſame circumſtance muſt add poignancy to our ſympathizing grief. The oppoſite apathy ſeems neither conſonant to the deſign of our Creator, nor founded on truth and a juſt notion of things. Were the deſign with which compaſſion was implanted in us merely this, that we ſhould aſſiſt ſuch ſufferers only as were ſo not by their own faults, and leave unaſſiſted all thoſe who had brought their miſery on themſelves, the far greater number of thoſe who ſuffered moſt, who brought on their miſery by ignorance, prejudice, or vicious conduct, nay thoſe who after a long ſeries of good and virtuous actions fell into misfortunes from a ſingle error, would have no claim to our compaſſion or aſſiſtance. Should any one fall at the firſt trial, we muſt conſider it as unjuſt to put him to further proof, and leave him without pity to the wretchedneſs he has deſerved. The ſtrongeſt demonſtration of an active love, the endeavouring to recover a ſoul from perdition, would, on this ſuppoſition, be repugnant to the deſign of our Creator. Farther, ſince nothing is without a cauſe, we muſt alſo admit, that the unhappineſs of a man, be he an agent in it or not, muſt have its cauſe external to him, muſt have its efficient cauſe in the whole ſeries of preceding circumſtances, and its final cauſe in all that ever was or will be. If the univerſe form one great whole, if all things be dependent on, originate from,

from, and relate to one another, and on this account be what they are, the extreme blindneſs and obduracy of the miſerable is an unhappineſs founded on the general connection of things. We muſt deny this whole connection, make man independent of the Almighty Creator and Ruler of the world, aſcribe to him a ſpecies of omnipotence, by means of which he can produce out of nothing ſomething not founded on the creation, through a volition likewiſe founded on nothing, or we muſt ſubject him to chance, which would in no wiſe juſtify our notion of a guilt unworthy compaſſion. If we admit not theſe, we muſt allow, that the moſt guilty wretch is a ſacrifice, and predeſtined as well to his moral depravity, as to his ſtate of miſery. He would not, it is true, be unconditionally predeſtined to the latter, without reſpect to the former. But if I aſk, why is he miſerable? and it be anſwered, becauſe he was guilty: I ſhall aſk farther, why was he guilty? Whatever efficient cauſes be aſſigned for this, they muſt ultimately arrive at ſomething external to man's moral nature, and cannot be founded on a depravity of this, as I ſhould ſtill go on to inquire into the firſt cauſe of this depravity, which could not poſſibly be explained from itſelf. If this be true, they, who in their inquiries trace men's actions up to their cauſes, would aſcribe no particular merit to them, were they ever ſo perfect and happy, and would perceive their imperfect and unhappy fellows not unworthy compaſſion according to our general ideas of demerit. Such a perception of truth we may eaſily preſume bleſſed and perfect ſpirits to poſſeſs. Here the ſphere of our view is circumſcribed. We content ourſelves with diſcovering the proximate cauſes of vicious actions, that lie in the moral nature of man, confining or extending our benevolence and compaſſion according to this ſhort-ſighted glance. Suppoſing that we do not clearly ſee, and ſo miſtake the truth, it is of no ſmall advantage to us, that, in our judgment of human actions, we thus ſtop at their proximate cauſes. But were the true philoſopher to excerciſe his compaſſion preferably towards unfortunate virtue, he muſt forget, that the virtuous man cannot be truly unfortunate, and thus in a certain degree renounce his philoſophy, or he muſt refuſe his effective compaſſion to the wicked in miſery, from having no hopes of being able really to ſerve him. Still ſuch an one he muſt ever with juſtice lament.

In behalf of the eternity of the miſery and puniſhment of thoſe who rebel againſt the kingdom of God, it may be further alleged, that it is neceſſary, to confirm the good and happy in their virtue and happineſs. The virtue of all finite beings ſeems to be of ſuch a fragile and unſtable nature, as only to be maintained by the exemplary warning of guilty wretchedneſs, and the terrifying picture of the miſeries attending vice. Puniſhments then are as neceſſary throughout all eternity, to prevent diſorder, rebellion, and the diſſemination of pride and wickedneſs, and to teach vain and arrogant creatures their dependence on God, as they are in this world. If this be the caſe, it proves the ſuppoſition, of a neceſſary exception to univerſal good, to be true. Not only to heighten the happineſs of the virtuous muſt ſome be ſacrificed, and condemned to

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a balance of misery, but to render that happiness generally possible, or at least to maintain and secure it.

To this principle may be opposed the following. Punishments in themselves and immediately make no man virtuous. They can do nothing but restrain the propagation of vice, and impel men to certain external actions, where they would not be attentive or provident enough sufficiently to reflect, and by means of such reflection, and the omission of accustomed pernicious actions which it would produce, enfeeble and destroy their propensity to these, and acquire a promptitude to those, thus ultimately rendering the former disagreeable and the latter agreeable to the mind. They who take warning from the punishment of others are influenced by fear to avoid a similar conduct. Those, then, to whom examples of punition are edifying and necessary, must be still vicious; at least they must have no such inclination to virtue as is founded on a knowledge of its excellence, or a sense of its fitness and beauty. They must as yet have acquired no taste for it. A man practises it not freely, or of his own powers, whilst fear is the sole or strongest link which binds him to it. He is therefore but a child in virtue, a mere beginner, and very imperfect compared with the virtuous man, who is so voluntarily, and from a conviction that virtue is happiness. Now as even in this imperfect state we see examples of virtuous men, who are not so from fear of punishment, but from a real love of goodness, we cannot but suppose, that the virtue of those intelligent beings whom God will reward with eternal bliss must find every thing necessary to secure it, in the perception of their actual happiness, in the remembrance of the lower degree of it which they felt when they were less virtuous, and in the prospect of its ever increasing with their increasing virtue; whence they will need no warning, no image of terror. This view of the case is also expressly propounded in scripture, particularly in those memorable words of the apostle John: *fear is not in love, but perfect love excludes fear. For fear gives pain. But whoso feareth is not perfect in love.* This is what we have been maintaining. Fear can be necessary only to those who have just entered the paths of virtue, to make them overcome the difficulties they will have to encounter on their first steps in this to them unbeaten way, by the prospect of still greater ones that they must meet if they deviate from it, thus countervailing their impatience, and aptitude to be discouraged. But the farther they advance, the less will they need fear, to induce them to proceed steadfastly, and with perseverance. Every difficulty, against which fear was the weapon to be employed, will diminish: the path will become smooth, and easy to their feet: and they will find it so excellent and agreeable, that pleasure will redouble their speed. Then will they wonder, that those terrifying objects were necessary to impel them to seek their own happiness, and be ashamed of their folly. As soon as we know God and virtue, we cannot but love virtue and God: and in the same degree does fear vanish, for fear is incompatible with a perfect love of God and virtue. As it is our duty in this world to strive after a love that excludes fear, which is by no means unattainable here, we may easily admit, that happy

happy beings ſo love as to know no fear, or, which is the ſame thing, that their virtue needs no longer being ſecured by the warning example of vice in wretchedneſs. Otherwiſe, indeed, the virtue of theſe happy beings muſt be as feeble, forced, and imperfect, as the probity of a man who could not be reſtrained from thieving but by the conſtant ſpectacle of robbers hanging upon the gibbet before his eyes.

Finally, for the condemnation of a part, may be adduced the experience, that, in this world, the welfare of one man is often founded on the ruin of another, and that the happineſs of one is the unhappineſs of another. With reſpect to certain earthly advantages at leaſt, this is true. But as the poſſeſſion of theſe does not conſtitute the proper happineſs of man, and as we may be diſcontented whilſt in poſſeſſion of an abundance of them, and contented under a want of them, if not extreme, no concluſion can be drawn from this experience. A variance or colliſion may ariſe between men's inclinations and wiſhes reſpecting the goods of fortune, whilſt the number of thoſe goods which they covet is ſo confined, that it is inſufficient to ſatisfy all, and what augments the poſſeſſions of one diminiſhes thoſe of another. But, as experience teaches us, that on which true happineſs is founded, is not ſo ſcarce, that, like wealth, honour, and power, it can only be participated by a few at the expence of the many. If, as Pope juſtly obſerves, health, peace, and competence, alone conſtitute man's earthly happineſs, the happineſs of one individual does not require to be purchaſed at the expence of another. An accurate attention to the frame of men's minds teaches us, that all, notwithſtanding the variety of their external circumſtances, enjoy a very ſimilar, if not an equal degree of happineſs: thus analogy ſeems to decide againſt this hypotheſis. Surely the benevolence of the moſt perfect being, the Father of all his creatures, cannot be ſo circumſcribed, as not to embrace all the beings he has created; nor can he be ſo poor in happineſs as to be unable to make all his children happy.

PROP. CV. p. 326. Before the Corollary.

On the Immateriality of God.

The proofs of the immateriality of God here adduced by Hartley are liable to ſome not unfounded objections; particularly the firſt. This is derived from the *vis inertiæ* as the fundamental property of matter. From this fundamental property is matter merely paſſive; conſequently, the grounds and cauſe of its motion are not in itſelf, but in an eſſence which is not matter. The firſt poſition is taken from experience, that all the active powers of matter, as they are termed, preſuppoſe the *vis inertiæ*, by means of which alone the exerciſe of thoſe active powers is poſſible. In my opinion, this proof is deficient both in ſtrength and perſpicuity. Our author has not ſufficiently explained what he means by *vis inertiæ*. Is it the power of reſiſting every motion, or only

a certain determinate motion? In the firſt caſe only can it be ſaid, that matter is merely paſſive; not in the laſt. But then matter never could be properly active, and all its active powers as they are called, which appear to be exerted, would be nothing but immediate impreſſions of ſome power of an immaterial eſſence, and itſelf would have no power to act, or to reſiſt. For what is reſiſtance but a power acting againſt another power? And do not paſſion, and the capability of paſſion, preſuppoſe a capability of action? We may, therefore, with more juſtice, term the *vis inertiæ* a power of reſiſting a certain determinate motion. And, indeed, it ſeems to be nothing but the power of motion itſelf, which, being always determinate in its exertion, muſt neceſſarily reſiſt every other motion which oppoſes ſuch determinate exertion. Thus the power of reſiſtance is only poſſible from the power of motion: in other words, the *vis inertiæ* is not the firſt power conceivable of matter. It preſuppoſes the power of moving itſelf, and is nothing more than a modification of that power. Thus, for example, a ſtone reſiſts the power that would impreſs on it an horizontal motion, becauſe it poſſeſſes gravity, or a power of moving itſelf towards the centre of the earth. Now, that this direction of its moving power is the ground of its reſiſtance to that power which would give its motion another direction is evident from this, that its reſiſtance is always proportional to the quantity of its gravity, or the force of its determinate moving power. Thus we muſt conclude, that, if it exerted no determinate moving power, and indeed poſſeſſed no ſuch power, it would exert no reſiſtance; or, in other words, if matter had no active power, it would have no power of being paſſive. Hence, as we muſt conceive the point in queſtion, the power of motion muſt be the firſt mode of matter, and the power of reſiſtance the ſecond, ſince the latter preſuppoſes and includes the former, and ſince we muſt abſolutely deny all power to matter, unleſs we grant it an original power of moving itſelf. Our author, indeed, inverts the propoſition; maintaining, that all motion is poſſible only by preſuppoſing a *vis inertiæ*; and that the active party which generates gravitation, magnetiſm, and the like in the paſſive one, muſt have a motion, and a *vis inertiæ*, whereby it endeavours to perſiſt in that motion, elſe it could effect nothing. But motion and *vis inertiæ* are here the ſame thing, ſo that this amounts to juſt what I have aſſerted, namely, that the power, which in one point of view is a moving power, in another, and oppoſite view, is the power of reſiſtance. If this be ſo, as long as the original power is exerted in a determinate manner, it muſt reſiſt every other direction, or the body muſt perſiſt in the motion begun. But if motion and *vis inertiæ* be two different things, no grounds for their diſtinction are to be found. If a certain determinate motion be once begun, the continuance of that motion requires no new power diſtinct from the firſt original one, whereon ſuch motion was founded, and by which it was determined. If this be juſt, the firſt argument for the immateriality of God, deduced from the *vis inertiæ*, falls to the ground.

The ſecond proof of the immateriality of God from his infinite intelligence preſuppoſes the principle, that a blind unintelligent cauſe, acting either according to no laws,

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or to laws contradictory to the effects to be produced, cannot generate intelligent being, much leſs the higheſt and moſt perfect intelligence.

What our author oppoſes to the difficulty of our conceiving an immaterial eſſence deſerves our attention. We have, indeed, no original ideas, ſays he, but what are impreſſed by matter: whence we are led to conclude, that nothing but matter exiſts. But as we cannot explain the moſt ordinary and ſimple phænomena from our idea of matter, we muſt either admit an immaterial ſubſtance, or elſe ſuppoſe, that matter has ſome powers and properties different from, and ſuperior to thoſe which appear. But this laſt ſuppoſition is in effect the ſame as the firſt, though, on account of the imperfection of language, it ſeems to be different. Our author here ſpeaks of the origin of our idea of immateriality. It muſt coſt the human mind great efforts to exalt itſelf to this idea, which is probably the higheſt flight ever taken by the underſtanding. This is unqueſtionably the reaſon why we find no clear traces of a ſimple idea of it amongſt the ancient philoſophers. The diſcovery of it was the work of modern times, and in all likelihood the fruit of an earneſt and continued reflection on the nature of God. Inaſmuch as this reflection preſuppoſes an antecedent, rational, and pure idea of God, and it was requiſite, that a weighty and important idea of God muſt firſt be formed in order to raiſe man up to this reflection, the enriching of philoſophy with the idea of immateriality may be aſcribed to the beneficial influence of the chriſtian religion. This obligation would philoſophy have to chriſtianity, even though the doctrine of immateriality were not expreſsly taught in the ſcriptures; and its being ſo may at leaſt be queſtioned, ſince the firſt teachers of it, or many of the fathers at leaſt, found not this idea therein, but always formed corporeal notions of God. Our inability to explain the phænomena of nature, and in particular the faculties of mind, from the known and admitted properties of matter, in all probability, led philoſophers, who found groſs matter inſufficient to this explanation, to imagine a more and ſtill more ſubtile matter, till finding, that, however ſubtile it were ſuppoſed, it would ſtill be matter, and thus incapable of making us comprehend the effects which they would willingly have explained, they ultimately denied the exiſtence of all matter, thus at leaſt arriving at a negative idea. Now as the human underſtanding cannot be ſatisfied with a mere negative idea, this was advancing nothing more, than that what produces properties and effects, not explicable by or conſiſtent with our ideas of matter, is not matter: but to make this idea affirmative and real we muſt not only ſay what it is not, but alſo determine what it is. As long as we admit, that matter is a reality, we cannot admit its oppoſite to be a reality alſo; hence all the realities that we aſcribe to an immaterial ſubſtance, when for inſtance we term it a ſimple thing, are nothing but words of the ſame meaning as immateriality, whereby in effect nothing new is advanced. Of this Leibnitz was aware, and, to extricate himſelf from the embarraſſment, conſidered matter and extenſion, as they ſtrike our ſenſes, to be appearances, refuſing them the appellation of real ſubſtance, and deeming them the reſult of the action of many

ſubſtances, which, not being diſtinguiſhable by our ſenſes, appeared to them as one, and indeed, as it muſt be in all ſuch appearances, as a whole, altogether diſſimilar to and diſtinct from its component parts. Theſe component parts, or rather thoſe things which conſtitute the baſis of this appearance, are, according to this theory, not farther compounded, but abſolutely ſimple and indiviſible. But as this idea of ſimple ſubſtance is to our conception another negative idea, in order to make it affirmative, he muſt give it ſome power, whence it would become real. Now this power which he gave it, was the power of perception, for of every other power it might be ſaid, that it was only an appearance, as matter itſelf in which the power was ſuppoſed, and this would apply perhaps even to the power of motion itſelf. The ſimple power of perception alone is not expoſed to this application. It can be no appearance, ſince an appearance always preſuppoſes a power of perception which repreſents a thing otherwiſe than it is, and we muſt alſo ſuppoſe, that the power of perception in one thing was produced by the power of perception in another, which is abſurd. Leibnitz alſo maintains, that it is eaſy to explain all the phænomena we admit in matter from this original perceptive power of all its component parts, their various alterations and degrees, their actions and re-actions. This theory, indeed, may appear chimerical to thoſe who blindly rely on the teſtimony and illuſion of their ſenſes; and this explanation, advanced by Leibnitz as poſſible, though not, as far as I know, confirmed, cannot be propoſed to the world, were it diſcovered, as a ſatisfactory means of filling up the wide chaſm between phyſics and metaphyſics, of making out the tranſition from one to the other, and uniting the two ſciences together. Still muſt this notion be conſidered at leaſt as an ingenious hypotheſis, the impoſſibility of which is not to be demonſtrated, and whereby the idea of immateriality is palpably freed from the objection, that it is merely negative, no true idea, and a word without meaning: it removes the contradiction, that matter and its oppoſite are both equally realities, and in particular defends and ſecures the immateriality of God, from the objection, that it admits of no conception. To be aware of what Leibnitz has hereby done, and properly to eſtimate the value of his hypotheſis, we muſt be acquainted with the difficulty which he ſought to remove. That difficulty, as has been obſerved, conſiſts in this, that ſince matter is, as far as appears to us, a true and real thing, ſpirit, or an immaterial thing, being the oppoſite to it, cannot poſſibly be true and real, whence all real things, and conſequently the moſt real of all things, God himſelf, muſt be matter. But ſince the idea of God as a ſelf-exiſtent and neceſſary being abſolutely leads us to the idea of his immutability, and theſe three ideas are ſo ſtrictly and inſeparably connected, that we muſt either admit or reject the whole; and ſince the idea of immutability is in direct contradiction to the idea of a compounded ſubſtance, or matter; we muſt either grant immateriality to the immutable being, or, if we ſuppoſe him to be material, we muſt give up the fundamental notions we have of God, namely, his ſelf-exiſtence, neceſſity, and immutability, that is, we muſt reject all rational ideas of him.

Our

Our author ſeems, in part at leaſt, to grant this, when he ſays, that to admit an immaterial ſubſtance, or to ſuppoſe that matter poſſeſſes certain powers and properties of a nature different from and ſuperior to thoſe we perceive in it, is the ſame thing. But if theſe two ſuppoſitions ſignify the ſame thing, we muſt admit, not only that the properties and powers commonly aſcribed to matter are unable to afford us the deſired explanation, but that it requires ſuch powers and properties as are contradictory to our ideas of matter, and thus not merely undiſcoverable by us, but abſolutely not to be found in it. This will at leaſt be the caſe if we would explain the idea of a neceſſary and ſelf-exiſtent being from the idea of matter, and unite thoſe ideas in our imagination. In ſuch a caſe we muſt firſt admit the mere negative idea of immateriality, and whilſt we adhere to this, it muſt be confeſſed, that the two ſuppoſitions adduced are equivalent. It is the ſame thing, whether I ſay: there are ſubſtances that are not material, or ſubſtances which have powers and properties whereby we may explain what is not comprehenſible from our ideas of matter and its powers, or, I muſt aſcribe to matter properties and powers, which are not only of a different nature from thoſe ordinarily admitted, but even of an oppoſite nature, and not to be conceived of it. If, however, we would go farther, and make the idea of immateriality affirmative, we imperceptibly fall into the Leibnitzian hypotheſis of ſubſtance and power. We muſt firſt in ſome ſort admit, according to our uſual mode of thinking, that theſe different and oppoſite powers, or rather power (for they may conveniently be reduced to one) exiſt in ſome ſubſtance, or a ſubject diſtinct from the power. But then we ſhould indeed think nothing, ſince the word immateriality preſents to us no real idea, and ſuch a ſubject is no where to be found. Nothing then remains for us, but to take the power itſelf for the ſubſtance. This is in effect ſomething real, and in it, and no where elſe, find we what can realiſe our idea of immateriality. This, in fact, ſeems to be the natural and immediate road which the human underſtanding muſt take, when it would convert immateriality from an empty ſound to an actual idea: and if this be the only way by which we can arrive at ſuch an idea, it is certainly a juſtification of, and argument for the Leibnitzian hypotheſis.

PROP. CX. p. 332.

On the Wiſdom and Goodneſs of God.

It is juſtly remarked by our author, that our ideas of the attributes of God, both of thoſe which are termed natural and thoſe which are termed moral, though they can neither be pure nor complete, are not contradictory to truth and reality. The general ideas, when we ſeparate them as much as poſſible from all human limitations and imperfection, muſt in fact be true and real, as far as the human underſtanding can know

know and diſtinguiſh truth from falſehood. Wiſdom and benevolence, for inſtance, are ſuch ideas, the origin and derivation of which are clear, which are founded on ſomething actual, have an actual object, and are in ſome meaſure more conceivable to us than the ideas of ſelf-exiſtence and infinity, as we have ſome impreſſion of them, though a faint one, in ourſelves. That theſe ideas do not fully anſwer to their object will readily be admitted: yet it by no means follows, that we do not ſee the truth, but that we do not ſee the whole truth. It by no means follows, that benevolence and goodneſs in God are different from, and oppoſite to what we term ſo in ourſelves, whilſt in him they are more than we can know or comprehend. That part of thoſe divine attributes which lies hidden from our eyes cannot poſſibly contradict and annihilate that which we perceive, but we muſt rather preſume, that, could we attain a more extenſive view of thoſe attributes, our ideas of them, as far as we have derived them from experience, and the nature of created things, according to the rules of right reaſon, would indeed be extended, exalted, and rendered more pure, but altogether confirmed in the abſtract. Were it poſſible to ſuppoſe, that our imperfect ideas of God's attributes were altogether falſe and uncertain, ſo that what we term wiſdom and benevolence in man would be by no means wiſdom and benevolence in God, all natural religion would be done away, nor could we have the leaſt advantage to hope from revelation. This would deprive us of the touch-ſtone by which true revelation is to be diſtinguiſhed from falſe, it would expoſe us naked and defenceleſs to the ſeduction of artful knaves or fanatic fools, nay it would rob us of the very idea of a God: for what idea could we have of God, if we muſt not ſuppoſe him powerful, wiſe, and good, in any human ſenſe of the words? Thus he would not be in any ſenſe to us; conſequently, with reſpect to us, he would not exiſt. The ſame circumſpection we muſt with juſtice uſe, if we would deduce and demonſtrate *a priori* our theological ſuppoſitions of the attributes of God; a circumſpection rendered neceſſary by our defective knowledge of theſe attributes, from which we are unable to determine what is ſuitable to them in particular caſes: as juſt and valid on the contrary muſt be that proof, which ſhews the falſity of an idea or a propoſition from its evident contradiction to the attributes of God, and our general notions of them. Theſe general notions muſt abſolutely conſtitute the firſt principles of theology, and it is our duty to reject whatever is repugnant to them; though it is no leſs audacious, to attempt to infer *a priori* all that God does, or will do, from theſe general notions.

The doctrine of Providence, wherein however no little perplexity prevails, and ſo many uſeleſs, and, in ſome meaſure, childiſh diſtinctions have been introduced, is clearly and conciſely laid down by our author. He admits the diviſion into general and particular providence, but explains himſelf in a way ſo conſonant to the Deity, that particular providence includes no greater or more abſolute care of God for its object, but that both general and particular providence are the ſame act of God, only receiving different appellations from us, according as we conceive it to operate for the good

of

of the whole, or of ſome particular part, but in effect always producing the greateſt good both to the whole, and to each individual part of that whole. When divines ſpeak of the particular providence of God to his children, this diſtinction cannot be founded on particular actions of God, or, it is not to be underſtood that God acts towards theſe in a particular and ſpecific manner; but the whole ground of the diſtinction muſt lie in the objects of this particular providence, inaſmuch as from their righteous frame they are more capable than others of rejoicing in the general exertions of divine providence, and of embracing and feeling the influence of God's benevolence. This explanation removes all the ſuperficial objections made to a particular providence.

PROP. CXI. p. 335. Before "In like manner."

On the moral Senſe.

Our author here refers to what he had ſaid of the moral ſenſe, and its origin, in the former part of his work (Prop. XCIX. Part I. 291.); from which it appears, that this ſenſe may be extremely different and various, more perfect or imperfect, and not ſeldom greatly corrupted, in different perſons, according as all the means of producing it, or only certain particular ones are employed. It is eaſy to perceive, likewiſe, that it muſt be ſtronger or more feeble, in proportion as a greater or leſs number of circumſtances concur to produce it. From what he has ſaid, too, it is clear, that the moral ſenſe is of itſelf no preciſe and ſufficient rule of conduct, but muſt ever remain in a great meaſure uncertain and indeterminate, unleſs informed and guided by a rational conception of the attributes, will, and deſign of the Deity, and a general knowledge of what is juſt and unjuſt.

PROP. CXII. p. 337.

On the Connection between natural and revealed Religion.

What our author here ſays of the light and confirmation which natural and revealed religion mutually receive from each other, is ſo warily and deciſively propounded, that it would be difficult to raiſe any objections to it. Still ſomething further explanatory of the ſubject may not be ſuperfluous. Natural and revealed religion have unqueſtionably their particular and independent proofs. The ordinary phænomena of the world, with the frame and courſe of nature, are the foundations on which are built the arguments for the former: unuſual phænomena, deviations from the frame and courſe of nature, or miracles and true prophecies, conſtitute the particular proofs of the latter.

But

But we muſt admit, that the general conſtitution and occurrences of the world have an inviſible intelligent author, before we can infer ſuch an one from unuſual occurrences. So far only as the unuſual make a ſtronger impreſſion on mankind than the uſual, and a certain blind neceſſity may be conſidered as the cauſe of the latter, with the excluſion of an intelligent author, ſeem the earlieſt of the human race to have derived the notion of an inviſible ſupreme being not ſo much from the wonderful order of the world, and the conſtant and regular courſe of nature, as from deviations from them, and unuſual appearances, that were either real miracles, or conſidered by them as ſuch. If we farther reflect, that the diſcovery of natural religion muſt have been a taſk of tedious and uncommon difficulty to the uncultivated underſtanding of the firſt race of mankind, if left to itſelf, particularly when having to infer the unity of God, a diſcovery that requires a practiſed mind, it muſt appear, that the natural religion of the firſt men was the fruit of unuſual or wonderful occurrences, or, as the Biblical records tell us, of more immediate divine revelation. Theſe wonderful occurrences, whether men were brought by them through fear to the notion and belief of an inviſible power, or were led to it by a more immediate and particular divine revelation, were, to theſe unpractiſed and ignorant reaſoners, the true proofs of their natural religion. Inaſmuch as the greater part of mankind are at all times incapable of obtaining a knowledge of religion from ratiocination, and their reaſon in fact aſſiſts them no farther than as it enables them to gueſs, that the frame of the world muſt have had a maker, in the ſame manner as any common piece of mechaniſm, without diſcloſing to them any thing preciſe or determinate reſpecting his nature, attributes, and deſigns; revelation, and the announced manifeſtation of God accompanying it, were the principal, if not the ſole foundations both of their natural and revealed religion. In ſuch men it is difficult to diſtinguiſh the two, and they are unqueſtionably indebted to revelation for what may in them be termed natural religion. Thus with reſpect to the far greater number of mankind, it is not only true, that their natural religion is enlightened and confirmed by revealed religion, but alſo that the former receives its exiſtence from the latter. Here the words of the apoſtle; through faith we know, that the world was made by the word of God, have their full force.

Even when we conſider the thinking part of mankind, it is not to be diſputed, that the natural religion with which they are acquainted is much indebted to revelation. That the human underſtanding was ſo early aware of the unity of God, is certainly to be aſcribed to divine information, as it is ſo difficult for enlightened reaſon to diſcover a particular and deciſive demonſtration of it. If we imagine to ourſelves all the ways and methods whereby man could arrive at the notion of a Deity, it muſt appear to us moſt probable, that, in the beginning, and before his reaſon had attained a certain dexterity, he believed a plurality of Gods: and this conjecture is confirmed by the general hiſtory of the remoteſt times. But beſides this, revelation has not only give men more pure, worthy, and perfect ideas of the attributes of God, than prevailed

vailed amongſt the moſt enlightened men at the time of its being promulgated, but it has alſo, and particularly chriſtianity, which has made the notion and belief of a God far more important to mankind than it had ever before appeared, impelled their minds to contemplate this exalted ſubject, and to employ all their combined faculties in this contemplation. Hence it naturally follows, that reaſon has acquired a more extenſive, juſt, and adequate knowledge of the nature, attributes, and deſigns of God, by a reflection thus excited and invigorated, than it ever before poſſeſſed.

Whilſt, however, we acknowledge this ſervice done to natural religion by revelation, we muſt not forget the benefits and advantages accruing to revealed from pure natural religion, and truths eſtabliſhed by reaſon. The light and confirmation derived to the former from the latter may, perhaps not improperly, be thus diſplayed. Let us ſuppoſe, that a code of laws, in every reſpect as perfect as poſſible, was given by an intelligent and benevolent philoſopher to an ignorant and uncultivated people. On the promulgation of it, the wiſeſt heads amongſt this people, who hitherto had formed no ideas of juſtice and injuſtice, or at leaſt very ſlight and imperfect ones, and had framed no ſyſtem of the laws of nature, awaking as it were from a long ſlumber, would firſt be led to ſtudy thoſe laws, inveſtigate their principles, and reflect on juſtice and injuſtice in general. They would at length diſcover by reflection and reaſoning, that they could attain proofs for the excellence of theſe laws, independent of all reſpect for their author, which they at firſt learnt only from the code itſelf, and took upon truſt in him who framed it. Let us alſo ſuppoſe, that the words of this code, however full and careful the inſtructions for guiding the people in the path of juſtice might be, were, through lapſe of time and change of circumſtances, become doubtful, leſs clear, and liable to be miſunderſtood; philoſophy, and the law of nature, firſt learnt by means of this code, would render the moſt needful and ſolid ſervice in explaining obſcure and diſputed expreſſions of the law, making a juſt application of general laws to particular caſes, and defeating the miſtakes of ignorance or miſapplications of ſuperſtition. There is nothing abſurd in ſuppoſing, that, whilſt the poſitive law was firſt made known to ſupply the complete want or imperfection of a rational natural law, ſtill, when reaſon had been thereby formed and aſſiſted in the diſcovery and knowledge of the natural law, this reaſon, and the knowledge it had acquired, could and muſt greatly contribute to explain and confirm the poſitive law. This, I ſay, is by no means contradictory. It is actually the caſe in all civilized nations. In ſuch ſtates the general law of nature is inſufficient to maintain rectitude of conduct amongſt their members. Poſitive laws are neceſſary, applicable to each particular ſtate, and the peculiar circumſtances of its people. Yet theſe laws and ordinances can never be ſo clear and perfect, but that it will become requiſite to aſcertain their meaning, to apply them in certain caſes according to the principles of reaſon, and ſometimes to have recourſe to the general expreſſion of the law of nature. Thus, I believe, is it with natural and revealed religion.

For the thinking part of mankind, wonders and prophecies, conſidered in themſelves, are more aſtoniſhing than convincing. The power of convincing us of their divine origin will not, indeed, be denied to theſe peculiar proofs of revelation; they will rather be conſidered as deſerving a ſufficient and neceſſary confirmation. But it will ſtill be thought requiſite to a complete and firm aſſurance of the truth, that the doctrines and tidings which they are intended to confirm bear themſelves the ſeal of truth, and the ſtamp of the Deity. Even the virtuous character of him who delivers theſe tidings and doctrines will not render theſe internal evidences of their truth ſuperfluous: for virtue is not a ſecurity againſt error and ſelf-deception, though it is a preſumptive proof of the truth of its doctrines. Thus it ſeems, thinking people cannot eaſily attain a confident aſſurance without having themſelves examined and approved the doctrines of revelation. But they can no otherwiſe prove the decrees of revelation, than by comparing them with that knowledge of God which they derive from reaſon. So far all revelation requires to be confirmed by natural religion. But ſince the doctrines of the latter appear to be not ſufficiently clear and evident to the greateſt part of thoſe who conſider them, as they leave doubts and perplexites in their minds, it ſeems to be the office and benefit of revelation, to confirm and more clearly aſcertain the doctrines common to them both by its own peculiar and ſufficient proofs, and to bring the mind, diſturbed by doubts, to a peaceful aſſurance in the truth, by the united means of a ſolid rational faith and its own light and conviction. And the more theſe two means mutually aſſiſt each other, the ſtronger will their united effects operate to produce peace and confidence.

PROP. CXIV. p. 341.

On Free-Will.

Arguments favouring the mechaniſm of the human mind have already been adduced by our author, in the concluſion of the firſt part (p. 297, 298). But the opponents of the free-will defended there, and in Prop. XIV. of this part, will argue from experience, that man poſſeſſes another kind of free-will, termed philoſophical by Hartley. They ſay: we feel that we can act differently from the manner in which we do act, and this feeling is the higheſt and moſt incontrovertible proof of it. To this Hartley with juſtice replies, that in all important actions of our lives, if we attend to our motives, and thoſe motives be of ſufficient weight, we in effect find, that they were not to be reſiſted, and conſequently have a directly oppoſite feeling. Theſe two points, however, deſerve to be more ſtrictly conſidered.* Man, as having a ſentiment

* See the *Allgemeine Deutſche Bibliothek, Band XII. Stück* 2. *S.* 304. We have here made uſe of the remarks there offered, in order to elucidate the point in queſtion.

of

of free-will, may be conſidered in a three-fold point of view: whilſt he is chooſing; when he chooſes; and after he has choſen. To judge properly of the ſentiment we ſpeak of, theſe three ſtates or points of time muſt be accurately diſtinguiſhed. In the firſt ſtate, whilſt a man has not at all or but ſlightly conſidered and compared the grounds of his choice, having only taken a view of them in the groſs, he knows not himſelf what motives will determine him, or to which ſide he ſhall incline. Whilſt he is in this ſtate, and his mind is occupied in conſidering and weighing the motives that offer, he muſt deem a certain action and its oppoſite equally poſſible for him to perform, like as a balance, which has yet no weight in either ſcale and vibrates up and down, may be made to incline to either ſide, according to our precedent judgment. In this ſtate a man has no doubt the ſentiment of free-will, ſince in theſe circumſtances he can chooſe one of two different and oppoſite things: but he has it only becauſe he ſtill heſitates, and is not yet determined. He will determine, however; and this is the ſtate or period of choice. He has now weighed the motives, as far as was ſuitable to his circumſtances, and his mind has received a ſufficient weight to occaſion a preponderance. In this ſtate he is perfectly conſcious of the motives that determine him, or he is not. If the former, he feels (and to this Hartley refers) that he cannot reſiſt the grounds of his choice, and is aware of the power that rules his determination. But if he be clearly conſcious of no motive, he aſks whether he be, notwithſtanding, determined by a motive, or there be in that caſe no motive, and he were determined without ground or cauſe, and by chance. If the latter be not admitted, and it cannot be denied, that, as ſtrict attention in many inſtances informs us, inclination, deſire, paſſion, and affection, ſo far as they are operations of the mind, are compounded of a number of not ſufficiently diſtinguiſhed, and conſequently not clearly noted, perceptions of good and evil, and that in many caſes, on calm and attentive deliberation, they admit of being decompoſed and reſolved into theſe unnoticed perceptions as into ſo many conſtituent parts; we ought not from a want of clearly perceived motives to infer an abſence of perceptions however obſcure. Philoſophical free-will as it is called, would gain but a very poor advantage, were its exiſtence defenſible only in caſes where man acts not from rational principles, but from luſt and paſſion, and without clearly knowing wherefore. Beſides, a blind chance, by which man is determined, muſt be admitted, inſtead of the proper motives and impulſes of the will, that are denied. But this is not attributing to him an original power of determining himſelf to oppoſite things without any grounds. Even this power is chance, whilſt its determination to A or not A, at the ſame time, and under exactly the ſame circumſtances, is equally poſſible. And this is a power which man finds not in himſelf in the moſt important actions of his life, if he act with reaſon and deliberation.

If man, then, though he be not clearly conſcious of his motives at the moment of choice, be determined by them, which we cannot deny, he actually feels the internal impulſe of deſire and paſſion. But this ſtate endures not long, and is already vaniſhed

when we begin ſeriouſly to deliberate on our choice and determination. Deſire and paſſions have then loſt their force, and in this ſtate a man imagines, that he might have rejected that to which he was impelled by them, as he now feels himſelf capable of rejecting it. He confounds the ſtate of his mind after having choſen with the ſtate of it at the moment of choice, and from confounding theſe two very different ſtates alone ariſes the imaginary ſentiment of free-will, or this falſe concluſion from a true ſenſation. Let him be again placed in that ſtate of deſire and paſſion, his ſentiment of free-will again vaniſhes at once. If a man be determined in his choice by motives which he clearly conceives, he will feel the neceſſity of it afterwards, whenever he reflects on thoſe motives; and he will fancy, that he could have choſen otherwiſe only when he is not ſufficiently attentive to all the circumſtances which acted upon his mind. How often do we ſay, when we calmly reflect on ſome important determination made with mature deliberation, that we could not have choſen otherwiſe, and ſhould ſtill make the ſame choice were we again to deliberate! In this caſe, we have not the leaſt ſentiment of free-will, even after the choice. We only find it when the ſtate of our mind after the choice obviouſly differs from what it was during the choice, or when the motives which determined it are not preſent to it on its inveſtigation, and from their nature, having conſiſted of a crowd of obſcure and unobſervable perceptions, which were effaced without leaving any traces behind them, cannot be recalled to remembrance. When the mind chooſes otherwiſe than it had formerly choſen, it retracts its choice, and repents of its former determination. For repentance is nothing more than a retraction of our judgment with reſpect to a certain deciſion, which, after having taken place, is again examined as if it were yet to do. If a man ſtill made the ſame choice, repentance would be impoſſible. This is the caſe when a man is determined by perceptions that are perfectly clear, or at leaſt nearly ſo. For theſe clear perceptions, on mature reflection on the choice, preſent themſelves to the mind by means of the memory, ſo that its ſtate will be the ſame as when it was determined to the choice. But if the determination followed the impulſe of deſire and paſſion, the force with which deſire and paſſion acted on the mind are wanting on calm reflection. We then find, that our preſent clear perceptions determine us to very different reſolves, and we feel a want of motives to thoſe to which we were impelled by deſire. The mind may be compared to the moſt ſenſible balance that can be conceived. Let the motives that are clearly perceived be conſidered as the weights, and the obſcure ones as the duſt that has ſettled on them, or in the ſcale. This duſt will give a preponderancy to one ſide, not to be explained from the weights themſelves. But the duſt is blown away, we examine the balance again, and find a different reſult. If we had not before noticed the duſt, we cannot conceive how ſuch a difference could ariſe in the ſame balance, and with the ſame weights. So it is with the mind when it firſt determines from paſſion, or obſcure perceptions, and afterwards from clear ones. Hence it is obvious, that the beforementioned ſentiment of free-will is capable of being explained by the ſyſtem of mechaniſm

mechaniſm or neceſſity, and conſequently cannot be deemed an objection to that ſyſtem. From the ſentiment of repentance alone may all kinds and degrees of it be explained from and ingrafted on it. Repentance is, as has been obſerved, nothing but the retraction of our judgment relative to a certain action, or a contraſting of the ſtates of the mind during and after choice. As often as ſuch a contraſt takes place, if clear perceptions ſucceed to obſcure ones, or the latter to the former, with reſpect to a certain determination, repentance muſt enſue: hence a man may repent of a good action, as well as a bad one.

It is worth while to inquire how the different modifications of repentance may be explained on the ſyſtem of neceſſity, and the idea here advanced. I ſhall firſt obſerve, that this idea is confirmed by the frame of mind of thoſe who are more or leſs ſubject to repent of their determinations. There are men who feel no repentance, or at leaſt a very ſlight and tranſient one, even for the greateſt miſconduct. Theſe are they in whom the ſtate or ſituation of the mind, which determined them to their vicious actions, is ſo firm and predominant, as not to change for a ſtate of better and more clear perceptions. The mind may have acquired no preciſe ideas of juſtice and injuſtice, virtue and vice, from want of moral inſtructions; or, from long habits of wickedneſs, it may have obtained ſuch a careleſſneſs and indifference, that a man may at length voluntarily ſuppreſs his moral ideas, conſtantly keep up the intoxication of the paſſions, never awake to a ſober deliberation on the conſequences of his determinations, and be totally incapable of attentively looking forwards to the future. In ſuch a ſtate of inſenſibility the mind finds itſelf a ſavage voluptuous ſultan, whom a Voltaire* would conſider as a happy man, becauſe finding a kind of undiſturbed pleaſure in the unbounded ſatisfaction of his brutal luſts. The complete want of moral principles, a deeply rooted prejudice that he is but the ſlave of a ſuperior being, and a brutal confinement of his views to the preſent, ſecure him from the pangs of repentance, and, as far as liberation from the ſcourge of that fury can give happineſs, make him happy. The reverſe of this man is he who with a warm conſtitution, headſtrong paſſions, and impetuous deſires, is capable of reflection, poſſeſſes juſt principles and a not unpractiſed moral ſenſe, can be guilty of a bad action, yet not abandoned, as a David for inſtance, can obſcure though not efface better impreſſions when actuated by wild deſires, and can ſuppreſs the fear of God and love of his neighbour for a time, though not for ever. The ſtrong contraſts in ſuch a mind, with the ebbs and flows of paſſion alternating in it continually, explain to us how repentance in all its various degrees, from the ſlighteſt diſturbance to the moſt exquiſite torture, muſt be ſtrikingly diſplayed in it, though not arrived at the higheſt pitch of wickedneſs. That all the repugnant feelings which accompany the rejection of a determination, as ſhame, remorſe, ſelf-condemnation and deſpair, are nothing but repentance in a higher degree, and variouſly

* See the article *Happineſs* in the *Dictionnaire Encyclopedique*.

modified,

modified, is evident, becauſe the rejection of a determination from a change in the ſtate of the mind, and a diſpleaſure founded thereon, are common to them all. According to our principles, repentance muſt be ſtronger or weaker in proportion as the ſtate of the mind during its choice differs more or leſs from its ſtate afterwards. And this is in effect the caſe. The more ſtrongly a man deſires or abhors a thing, which, after having changed his frame of mind, he perceives he ought not to have deſired or abhorred, and the more clearly and certainly he perceives this, the greater the contraſt between the two ſtates of his ſoul, the more ſtriking his variance with himſelf, and the more forcible his repentance. The diſcontent that ariſes from ſuch a variance with himſelf is ordinarily very complicated, and the different circumſtances wherein the agent finds himſelf, with the manifold conſequences enſuing, partly preconceived, partly not, may variouſly alter, magnify, or diminiſh the regret of having embraced a certain determination. But it originally ariſes from our variance with ourſelves, which of itſelf cauſes in us an unpleaſant ſenſation, of the ſame nature as that we experience when our judgment is contradicted, or our conduct blamed by others. This is always painful; and the more ſo, the more we value the judgment of him who contradicts us. Nothing, then, can be more unpleaſing to us, than our not agreeing with ourſelves, and being obliged to withdraw our own approbation, which always implies the want of that of every other perſon. When, however, beſides this, we perceive a preſent or future embarraſſment as the conſequence of our repented determination, the original unpleaſing ſenſation above-mentioned is thereby augmented; and it is increaſed in proportion as this conſequence is more or leſs unpleaſant, as we perceive more or leſs clearly, that it ariſes from our precipitate reſolve, and we are more or leſs convinced of its being inevitable. If the determination we reject ſhould have no remarkable conſequences that we can perceive, the pain of repentance will be ſcarcely obſervable. But, if we attend to it, we ſhall find, that it is not totally effaced, even when a reſolve grounded on a judgment which we afterwards perceive to have been erroneous is accidentally productive of advantage to us. In this a ſecret impreſſion prevails. The advantageous conſequences which enſue may leſſen it, but they cannot wholly ſuppreſs it, or remove a ſenſe of ſhame at our unmerited fortune. This ſeems to me a clear proof, that the original pain of repentance, and its primitive ſource, ſpring from that variance we are in with ourſelves when we repent of a thing. Repentance ſometimes aſſumes the form of a ſorrowful, at others of a ſhameful feeling. The latter happens when the judgment we reprobate ſeems to indicate a weakneſs of underſtanding, and when we remember, that we fancied our choice the reſult of prudent and cautious deliberation. The ſentiment we feel is afflictive, when the determination we repent of appears unfriendly, unkind, or ungrateful to thoſe who wiſh us well. Repentance riſes to remorſe, when our maturer judgment diſcovers in our former reſolve any great and irreparable injury to others, and reprobates it for this reaſon. It becomes ſelf-condemnation, when we perceive near and inevitable a threatened

threatened puniſhment, which we before knew, but which at the moment of our unhappy determination was overlooked and unheeded. Finally, it is deſpair, when our whole happineſs appears to be irrevocably deſtroyed by the action of which we repent.

I cannot quit the ſubject without endeavouring to remove a plauſible objection, to which the preceding explanation of repentance ſeems to be expoſed. It may be ſaid, if the ſentiment of free-will ariſe from the alternation of two different and oppoſite ſtates of the mind, repentance, depending on the ſame, would be no better founded. The diſſatisfaction accompanying it would alſo ariſe from a ſelf-deception, and muſt conſequently vaniſh as ſoon as we diſcover, that when we embraced the reſolve of which we repent we were otherwiſe determined by the ſtate of our mind at that time, than we are by the preſent. It appears too, that an adherent to the ſyſtem of neceſſity, if he remain true to his creed, muſt ſet himſelf above repentance, and be able to philoſophize away at will every painful ſenſation accompanying it. This objection takes for granted, that we can approve or diſapprove, or feel ſatisfaction or diſſatisfaction, at nothing, whether done by ourſelves or others, unleſs what might have remained undone in exactly the ſame circumſtances. If this were true, it would be ſelf-evident, that neither ſelf-approbation nor diſapprobation, a good conſcience nor repentance, would be compatible with the ſyſtem of neceſſity. But this is merely a *gratis dictum*. Experience, and the ſlighteſt attention to ourſelves, teach us, in the firſt place, that every thing which is beneficial, or which excites pleaſing ſenſations, is agreeable to us, and that every thing injurious, or which excites unpleaſing ſenſations, is diſagreeable to us; and this, indeed, of themſelves, without the conception or conſciouſneſs of an abſolute free agency being neceſſarily required, to make the one agreeable, and the other diſagreeable. Whence it happens, that the profitableneſs or injurioufneſs of the actions of intelligent beings pleaſe or diſpleaſe us in a particular manner, I ſhall hereafter have occaſion to explain. Beſides, every contradiction is of itſelf repugnant and unpleaſant to us. Thus when I am convinced, that he who contradicts my opinion, or blames my conduct, ſees the caſe on an oppoſite ſide, to that on which I view it, ſtill his contradiction or blame give me pain, and indeed the more in proportion as I eſteem his approbation and value him more highly. If his approval be indiſpenſable to my ſatisfaction, and it be not poſſible for me to bring him over to my way of thinking, in order to obtain it, and avoid the pain ariſing from his oppoſition, I ſhall alter my conduct conformably to his judgment. Suppoſe a man unable to ſolve a certain propoſition by a given time, notwithſtanding he ſpares no labour or exertion, and thus fail of obtaining a prize offered for its ſolution, yet, when it is too late, diſcover that on which he before beſtowed ſo much trouble in vain. Though he cannot impute to himſelf the leaſt blame for the tardineſs of his diſcovery, would he not be diſſatisfied with himſelf, or at leaſt wiſh that he had made his diſcovery earlier? Now this wiſh really includes the pain of repentance, and is not eſſentially different from

from that which follows a bad or imprudent action, though with reſpect to degree, and on account of concomitant circumſtances, they are indeed diſtinguiſhable. After an inconſiderate, precipitate, and unſucceſsful action, though we may feel nothing of what is termed guilt, ſtill we fail not to wiſh, that we had before poſſeſſed the juſt notions that we now have, and had left the action unattempted. We muſt actually become indifferent to our perfection or imperfection, happineſs or unhappineſs, when the ſubſequent diſcovery of an unwiſe, raſh, or injurious reſolve, however impoſſible it may have been for us to have avoided it, does not excite in us diſſatisfaction. The moſt ſubtile reaſoning would be as little able to exempt us from this diſſatisfaction, as from the ſenſe of our littleneſs and imperfection.

To ſet this in a clearer light, I will add a few remarks. Firſt, he who would ſuppreſs repentance from the principle, that man acts from neceſſity, muſt alſo admit, that his actions make him neither more imperfect nor more unhappy, and draw after them neither natural nor poſitive puniſhments. He muſt alſo, indeed, in order to efface the diſſatisfaction of repentance, but half admit the ſyſtem of neceſſity; ſo far only as it does away our guilt; rejecting it ſo far as it renders our ſufferings neceſſary. As ſoon as we learn by inconteſtable experience, that all our actions, notwithſtanding the neceſſity by which they are impelled, are profitable or injurious to ourſelves and others, the pleaſure of ſatisfaction on the diſcovery of their utility, and the pain of diſſatisfaction, or repentance, at perceiving their hurtfulneſs, cannot but enſue. Even poſitive puniſhments, ſince they are nothing more than ſalutary medicaments, or neceſſary means of inſtruction, are neither unjuſt nor uſeleſs, but are rather good, as they are neceſſary.

Secondly; To feel that repentance which is not only conſiſtent with, but even requiſite to the ſyſtem of neceſſity, when completely conſidered, a man muſt know, that injuſtice and ſin are injuſtice and ſin by reaſon that they are in general detrimental, or the natural cauſe of miſery, and that they are forbidden to us under the denunciation of puniſhment, to reſtrain us from an evil more great than that puniſhment, and which would neceſſarily follow thoſe actions that are forbidden. If a man be convinced of this, he will perceive as little injuſtice in the evils conſequent to thoſe bad actions, as in a chirurgical operation, which, however painful, is neceſſary to preſerve life. If a man have brought it upon himſelf by a voluntary determination, he will repent the raſh ſtep which rendered the remedy neceſſary, or wiſh that he had not done it, and ſteadfaſtly reſolve never to act in the ſame manner if he ſhould be in ſimilar circumſtances. This repentance will take place, whether we be conſcious or not, that under our former circumſtances we were neceſſarily impelled to perceive and think as we then did. The painful ſenſation we feel forces the wiſh not to have committed the raſh deed, or not to have been determined to it: and as little as the moſt ſubtile reaſoning can avail to annihilate the former, as little can it to ſuppreſs the wiſh which may be termed the ſecond part of repentance. But the better reſolution is ſo far from being excluded or rendered abſurd by the ſyſtem of neceſſity, as rather to be from it alone rational and

ſalutary;

ſalutary; ſince, on the preſumption of chance, that is, the ſuppoſition of the free-will of indifferency, neither of the two would take place. The more ſteadfaſtly I reſolve never to make a determination which I diſcover to be pernicious, in a future ſimilar ſituation, the leſs can exactly ſimilar circumſtances hereafter recur to me: for though my future ſituation may be in every other reſpect ſimilar, ſtill the traces of the repentance I felt, and the better reſolution I formed, remaining in my mind, will occaſion ſo notable a difference, that I may dare to hope never again to be determined to a ſimilar folly in the hour of trial. I have ſtyled the reſolution of amendment the ſecond part of repentance: with reſpect to its utility it might alſo be termed the moſt noble and important. Though from the preſuppoſed neceſſity of human actions it might be doubted, whether it be reaſonable or not, to be diſſatisfied with the performance of bad actions, ſtill it is without diſpute moſt highly reaſonable, ſo far to diſapprove of paſt evil deeds, as ſteadfaſtly to reſolve to amend our conduct, ſince, even on the ſyſtem of neceſſity, this ſentiment of diſapprobation, and the reſolution inſeparable from it, muſt have a ſalutary influence on our future behaviour, or tend to produce a ſtate of mind different from that which determined us to go aſtray. From this mode of viewing the ſubject, it appears, that the diſſatisfaction eſſential to repentance is only valuable ſo far as it conduces to confirm our reſolutions of amendment, and engrave them more deeply on the mind. Now ſince the diſſatisfaction of repentance is requiſite to this good purpoſe, he who ſees the truth completely, and comprehends the ſyſtem of neceſſity in its whole extent, far from ſuppreſſing the pain of repentance, even were it in his power ſo to do, would endeavour to maintain it in its full force. He would apply it, however, wholly to the advantage of the future. To confine himſelf to the painful ſenſation of lamenting his miſconduct, without caſting an eye forwards to the future, and to continue without ceaſing in fruitleſs ſorrow for what is paſt, would be as little conſonant to his ſyſtem as to reaſon.

Thirdly; Repentance is two-fold. There is an enlightened, rational repentance, ariſing from the knowledge that we have miſtaken and neglected our real advantage. To creatures ſo weak as men it is a ſpur to make them advance with more ſpeed in the road to perfection, and at the ſame time a bridle to prevent their going aſtray. The pain connected with this repentance puniſhes our follies only ſo far as is neceſſary to cure us of them, afflicts us only that we may rejoice, and depreſſes only to exalt us. Of a ſimilar nature with that godly ſorrow, which, as St. Paul obſerves, brings forth a repentance meet for ſalvation, and which no one can rue, this pain can never be deemed unfounded, uſeleſs, or prejudicial, but approves itſelf neceſſary and advantageous on the ſtricteſt examination of every true ſyſtem of philoſophy, founded on experience and obſervation, not on the chimeras of inventive fancy. This repentance is not only conſiſtent with the ſcheme of neceſſity, but derives all its value from it. There is, however, a blind repentance, produced by an obſcure ſentiment of an arbitrary and wholly unconditional free-will, and ſupported by erroneous conceptions

of merited vengeance. It occupies itſelf altogether with what has happened, and ſhould not have happened. It takes vengeance in a proper ſenſe in vain, and puniſhes the offender merely to give him pain. It terminates in moral ſtupefaction and deſpair, and like that phyſical melancholy which ariſes from the irretrievable loſs of ſome apparent good, ultimately produces death. This repentance is by no means defenſible on the ſyſtem of neceſſity. But were this ſpecies of it, with the puniſhment it inflicts, totally rejected as abſurd, irrational, and uſeleſs, neither virtue nor humanity would, in my opinion, be loſers by it.

It appears, that the ſyſtem of neceſſity explains both the ſentiment of free-will, and that of repentance, and indeed in ſuch a manner, that the explanation ſerves to confirm the ſyſtem itſelf: but on the oppoſite ſyſtem of chance, we cannot comprehend whence repentance ariſes, or what end it anſwers. We comprehend not whence it ariſes, ſince the ſole ground of repentance of an action according to this ſyſtem, namely its falling out unfortunately, is not the true and proper ground of that ſentiment: for we frequently find very unpleaſant conſequences follow an action which we cannot repent of, but muſt approve. This is the caſe, when, having acted conformably to all the knowledge we had of the object of our choice, and with the greateſt circumſpection, we, on a ſubſequent examination of this action, paſs the ſame judgment as before, and muſt aſcribe the unforeſeen misfortune which enſues to ſome circumſtances concealed from us, and which could have no influence on our determination. Neither do the ill conſequences of our determination lead us to repentance when we have clearly foreſeen them, yet nevertheleſs eſteem the performance of the action the greater good. So is it with ſelf-approbation after any action. This is not properly founded on its happy conſequences, but on the circumſtance, that on a ſubſequent inveſtigation of our motives we would determine in the very ſame manner as we had before done. Thus as the circumſtance, that what we have choſen turns out lucky or unlucky, does not conſtitute the eſſential and principal point of ſelf-approbation, or repentance, though both theſe ſentiments are capable of being heightened and differently modified thereby, they who defend the freedom of indifferency muſt ſuppoſe ſome other connection and relation of approbation and repentance with the action that is approved or repented of, if the action be really connected with the repentance or approbation that enſue. In this caſe there muſt be ſome circumſtance in the action itſelf which cauſes approbation or repentance. If, however, a man have choſen from chance, or a blind arbitrary determination, there is no circumſtance diſcoverable in ſuch a choice on which repentance can be founded, unleſs perhaps, that he ſhould not have choſen from chance, or ſuch a blind volition. But as this very circumſtance, according to the ideas of our philoſophers, conſtitutes the eſſence of free-will, and if no free choice can any other way be exerciſed, it is impoſſible, that this can be the ſource of repentance, as in that caſe every free choice muſt be repented of. We muſt alſo farther ſuppoſe, that, as the free choice or determination is made without a ſufficient cauſe, the approbation or repentance of this determination

nation is equally a free action of the mind, which, like the choice on which it is founded, is produced without a ſufficient cauſe, that is by chance or a blind volition. In this caſe it is juſt as incomprehenſible why a man has formed a certain reſolution, as why he approves or repents of his reſolve. Unable as the ſyſtem of free-will is to explain the occaſional cauſe of approbation or repentance, equally incapable is it of explaining the final cauſes of thoſe ſentiments. If an action be really connected with the repentance or approbation felt after it, and the one be capable of being explained from the other, the ſtate of the mind after the choice from the ſtate of the mind during the choice, as an effect from its cauſe, or as a thing grounded on ſomething from that on which it is grounded, according to certain pſychological laws, then the ſubſequent ſtate of the mind will be connected with its future ſtate, when it has to chooſe again, and be ſo dependent on it, that its preſent ſenſation of approval or repentance muſt have a neceſſary and profitable influence on its future determinations. This is the final cauſe or utility of thoſe ſenſations on the ſcheme of neceſſity. But the freedom of indifferency deſtroys this latter connection, or that of repentance or approbation with our future reſolves, and conſequently this final cauſe or advantage of them, completely, or at leaſt in the degree in which a man poſſeſſes and exerciſes this freedom. Every thing that happens as a conſequence of them is unfounded, fruitleſs, and totally incomprehenſible.

Some philoſophers, to avoid theſe conſequences of the freedom of indifferency, which they have acknowledged to be a preference to act irrationally, and at the ſame time not daring to admit the freedom of neceſſity, againſt which they were ſo prejudiced, have endeavoured to find a middle point between the two, or a freedom neither completely determinate nor indeterminate. According to their notion, man's freedom conſiſts in the faculty of ſuſpending choice, and, by propoſing an over-balancing good, of remaining undetermined, reflecting on the caſe, and weighing its advantages and diſadvantages againſt each other ſtill farther; a faculty which is properly an original power of his own, as it requires no external cauſe for its uſe or diſuſe. It is eaſy to be ſhewn, however, that this is no other in fact than the rejected freedom of indifferency, only ſomewhat otherwiſe expreſſed. According to this middle kind of freedom, man poſſeſſes a faculty of reſiſting his ſtrongeſt motives, and equally poſſeſſes it not; he has it only for a time. Under the very ſame circumſtances choice is protracted, or expedited. But why is the choice finally determined? why not procraſtinated ſtill longer? and why is not a man undecided to all eternity? If it be ſaid, the motives, and their adequacy to his underſtanding, make him ultimately determine, we fall into the ſyſtem of neceſſity: for this is what the partiſans of that ſyſtem maintain. But this is not the meaning. Rather all the circumſtances are completely the ſame whilſt the choice is protracted, and when it is concluded. No alteration has taken place, either in the motives, or in their adequacy to the underſtanding: no new motives have been added to make the former more clear, lively, or perſpicuous to the mind. Otherwiſe theſe alterations would be the occaſional cauſes of determining the protracted choice. Thus nothing elſe remains, and the con-

cluſion of the choice muſt depend on an original power, the uſe or neglect of which is founded on nothing elſe, and is conſequently altogether incomprehenſible. The two oppoſite things, my now determining, or leaving myſelf more time for reflection, my being precipitate, or conſidering maturely, have no grounds, and thus happen from chance or a blind arbitrary will, according to the ideas we have of thoſe words, exactly in the ſame manner as according to the dreams of Epicurus regular bodies and a world ſprung from the fortuitous concourſe and union of atoms. This alſo occurs in and characterizes the freedom of indifferency. But it is evident, that, in whatever this chance or blind will be placed, it amounts to the ſame thing in effect, whether it be ſaid, that a man can by means of his free-will reſiſt his ſtrongeſt motives, at the moment when they are to him the ſtrongeſt, or that he can protract or accelerate his choice without any cauſe, that is, whilſt the whole iſſue and conſequence of the choice depends on this, that he can fortify what motives he chooſes, and make them his proper incentives to action, according to a blind arbitrary will.

From this view of the caſe it is clear with how much reaſon Hartley conſiders it a mere *gratis dictum* to ſay, that the freedom of indifferency is ſo eſſential to man, that God, in creating him, muſt have made it innate to him. If it be eſſential to man, an intelligent creature capable of happineſs without it is inconceivable. But who would aſſert this? Who cannot at leaſt have a clear conception of an intelligent creature, whoſe will is always determined by a ſufficient cauſe, and according to certain immutable laws? What is there in this contradictory to the happineſs of an intelligent being, and to reaſon, that is, to the faculty of having clear ideas of the qualities and habitudes of things, and acting from thoſe clear ideas? Nay more, ſince all the phænomena of the human mind may be comprehenſibly explained on the ſcheme of ſuch a mechaniſm, it is impoſſible, that the reverſe of it can be eſſential to man. To this we may add, that this freedom, termed eſſential to man, is incomprehenſible, introduces ſomewhat into man's nature, to which there is nothing in any other part of nature ſimilar or analogous, and in effect, let a man turn it what way he will, eſtabliſhes the doctrine of chance. But what if with this mechaniſm man become nothing more than a machine, or at moſt an intelligent machine? What if this deſtroy all diſtinction betwixt moral good and evil, or indeed all morality? And what if it render God the author of evil? Theſe are the fearful objections uſually brought againſt mechaniſm; but were they well founded, they would by no means prove, that the freedom of indifferency is eſſential to man.

The mind, it is ſaid, would be a machine, were its actions neceſſary. This is an *argumentum ad invidiam* as it is called. It tends not to refute neceſſity, but to render it odious. Nothing in the human mind is altered thereby. It retains its eſſential excellencies, the faculty of thinking rationally, of acting, and of being happy. Whether it be termed a machine or not, whilſt it retains thoſe excellencies, is a matter of indifference. Leibnitz heſitates not to ſtyle it *automa ſpirituale*, and if his ſcholars

have

have avoided uſing the odious appellation of a machine, it was that they might not incur the evil report of the unlearned, or be treated as heretics by ignorant judges. They could not venture freely to avow it, whilſt it was believed, that mechaniſm would deſtroy all imputation of moral good or evil to men's actions, and partly too, they had not ſufficiently clear ideas of the matter, to be capable of ſhewing how little foundation there was for this belief. What has ſince been ſaid by others, however, in explanation and juſtification of the ſyſtem of neceſſity, and eſpecially by our author, will perfectly exculpate the partiſans of that ſyſtem from the odious conſequences laid to its charge.

Hartley's inquiries into this propoſition throw great light on it. Nothing conduces more to clear up the erroneous controverſies which have been ſtarted on free-will, than the juſt remark, that the diſputants have uſed a double language, one philoſophical, the other popular; and that all the perplexities that have ariſen on the ſubject ſprung from confounding theſe two languages. I have nothing to add to this, except a few words in explanation of that important propoſition: *that moral good and evil are nothing but modifications or appearances of natural good and evil.* It is difficult not to be of this opinion, as ſoon as we place the eſſence and characteriſtic of moral good and evil in this, that the former is the ground of ſatisfaction, order and happineſs, and the latter, of diſſatisfaction, diſorder and miſery, that is, of natural good and evil. But can the eſſence of moral good and evil be otherwiſe defined in an intelligible and comprehenſible manner? Does any thing elſe, commonly given as a diſtinction of good and evil, go ſo far to eſtabliſh the proper beauty of virtue, the hateſulneſs of vice, and the limits between the two, in ſo clear and preciſe a manner, as the tendency of the one to miſery, and the other to happineſs? Is not every other characteriſtic of moral good and evil capable, in effect, of being traced up to, and explained by this eſſential diſtinction? And, finally, what can be oppoſed to the ſophiſms of thoſe who would deny the diſtinction betwixt virtue and vice of more weight than this, that they muſt equally deny the diſtinction betwixt content and diſcontent, happineſs and miſery? If it be admitted, that the actions of man are only good or bad as far as they are the grounds of natural good or evil, it is eaſy to ſhew, that what is properly real in and eſſential to theſe actions is in effect natural good or evil, which they include, and to which they tend. But as the actions of men tend to and promote theſe in manifold ways, and, as our author obſerves, compound and modify them in various manners, the reſult of this modification is an appearance to thoſe who know not to diſtinguiſh what is properly the ground of this reſult, and whence it ariſes. And this muſt be an appearance to them, whilſt they have not the tendency of the action they judge of conſtantly in ſight, inſpect not its whole connection, and decide not from theſe, but from their own narrow ſphere of view; juſt as colour is to us an appearance, whilſt we cannot diſtinguiſh the primitive component parts of bodies from which that appearance ariſes. As little as our perceptions of colour reſemble thoſe of a ſuperior being endowed with

with leſs circumſcribed faculties, as little would moral good and evil appear the ſame to ſuch a being, or at leaſt to the Supreme Being, who ſees every thing clearly, as to us. He would diſcover in men's actions nothing farther than their tendency to natural good and evil, without commixture of thoſe ſecondary ideas of moral uglineſs and beauty, which, founded on our narrow faculty of conception, is to us relatively good and uſeful, but neither to a being that penetrates the eſſence of things.

To this view of the queſtion it might be objected that the moral characteriſtics of actions, the praiſe and approbation which we beſtow on ſome, and the blame and abhorrence which we expreſs to others, thus loſe their proper ſignification, force, and value; and likewiſe, that the moral ſenſations of the beauty and fitneſs of virtue, and the uglineſs and hatefulneſs of vice, are by this hypotheſis rendered inſignificant and inefficacious. Farther, a ſolution of the following difficulty might be required. Why are our moral diſtinctions and perceptions of good and evil founded only on that phyſical good or evil which is occaſioned and modified by the voluntary actions of men, or rather on thoſe actions alone, and not on any other kind of phyſical good or evil? Why feel we not the ſame ſenſations of abhorrence and indignation when a man is killed by the falling of a tree, as when his death is occaſioned by a blow from an enemy? The phyſical evil is in both caſes equal: if this alone then be the real ground of our feelings, it is not conceivable whence the great difference betwixt our ſenſations and judgment in the two caſes can ariſe. It would be eaſy for me to extricate myſelf from this dilemma, were I, with a certain Engliſh philoſopher to have recourſe to final cauſes. I need only ſay, in the one caſe theſe feelings are neceſſary and uſeful, in the other not. But this is not removing the difficulty; it ſerves at moſt to ſhew, that it muſt be ſo. Neither does it ſatisfy me, to aſcribe the origin of the moral ſenſe, ſo far as it ariſes from ſomething elſe than the natural good or evil which an action tends to or includes, to laws, education, or inſtruction. For not to mention, that all theſe diſpoſitions can introduce no perceptions into the human mind, but what are founded on its frame and confined faculties, the difficulty is only put off a ſtep farther, and we muſt ſtill inquire, how did the human underſtanding firſt arrive at theſe moral diſtinctions? This queſtion demands an anſwer: and if a clear anſwer can be given, not only compatible with the propoſition, but deducible from it, a new proof of its validity ariſes from the very objection.

I will endeavour to explain the ſubject from the nature of appearances. This, indeed, cannot be done without ſome ſeeming ſubtilties, whence I can ſcarce hope, that the inveſtigation will ſuit the taſte of all my readers. I cannot, however, but deem it neceſſary, as it may lead us to ſuch important conſequences.

The more various the parts of which any ſubject of our obſervation is compoſed, and the leſs able we are to perceive thoſe parts ſeparately, or diſtinguiſh which and how many of them contribute to the reſult of the whole, the leſs will our obſervation diſcloſe to us the actual ſtate of that whole, as it conſiſts of its ſeveral parts, and through each of them effects a particular action on us, or the leſs objective truth will there be in our perceptions.

perceptions. As every thing we perceive, every thing rendered by perception an object of thought, is compounded, and includes a multifariouſneſs of which the ſenſes can diſtinguiſh little or nothing, it is highly probable, that we perceive nothing, and, whilſt we confine ourſelves to mere perceptions, think of nothing, in the ſtricteſt ſenſe, actually as it is: but that we muſt content ourſelves with the appearances of things, which are wide of or approach the truth, according as our minds more or leſs minutely comprehend the multiplied diverſity of their compoſition at one view. Hence it follows, that a particular object, when united in our conceptions with one or more adventitious circumſtances, and thus compounded, becomes to us another more or leſs accurate appearance, that is, in one way or other, more or leſs departing from the objective truth. The more ingredients a made diſh or medicine is compoſed of, the more difficult is it for us to aſcertain the particular effect of each component part, and the more different the taſte of the whole compoſition to the palate from that of its parts taken ſeparately. A few colours mixed together give an appearance different from that of all the primitive colours united in one view. So is it with natural beauty and uglineſs. No one will eaſily doubt, that the former is merely an appearance, or the reſult of certain parts, their diſpoſition, relation, and proportion, ariſing from their being all taken in at one view in a certain manner. If in viewing characters and actions we form perceptions ſimilar to thoſe ideas, and founded in like manner on the diſpoſition, relation, and proportion of their various conſtituent parts, we apply the terms of beauty and uglineſs to actions and characters. Let that conſtitution, which, whether clearly or obſcurely perceived, is capable of exciting in both caſes the idea of beauty, be termed perfection, or what elſe you pleaſe, ſtill the original foundation of its agreeableneſs is a ſuppoſed or imagined utility of the object, as a ſuppoſed or imagined noxiouſneſs is the foundation of an object's being diſagreeable. Thus, generally taken, natural and moral beauty and uglineſs are nothing but a confuſedly and obſcurely perceived utility or noxiouſneſs. But why do we diſtinguiſh the beautiful from the uſeful, and the ugly from the noxious? Unqueſtionably becauſe both the uſeful and noxious are ſometimes ſo compounded, and ſo concealed under the manifold diverſity of the object, that it is not eaſy to diſcover, diſtinguiſh, and aſcertain the relation of either to its ground of utility or noxiouſneſs, on our complicated view of it: in other words, becauſe beauty and uglineſs are appearances compounded of more parts, and differently modified from mere noxiouſneſs or utility. Theſe latter qualities in their greateſt purity muſt be as little mixed and compounded as poſſible, and are thus obviouſly diſcoverable, when conſidered merely as noxious or uſeful. That beauty and uglineſs, however, are nothing but compound appearances of the uſeful and noxious, may be ſhewn from the following conſiderations.

In the firſt place: beauty and utility, uglineſs and noxiouſneſs, range themſelves under two general heads; the former under the general idea of agreeable or commendable, the latter under the idea of diſagreeable or blame-worthy. If theſe general ideas be liable to various modifications or alterations, ſtill what is eſſential to them remains,

remains, and their alterations conſiſt only in their exact relation to the modifications and compoſitions of their different ſubjects, the noxious and the uſeful. Unqueſtionably, elegance, gracefulneſs, and majeſty on the one hand, and inelegance, brutality, and meanneſs on the other, may be conſidered as branches or diviſions of beauty and uglineſs. The different perceptions and ideas excited in us by the juſt-mentioned ſpecies of uglineſs and beauty ariſe from the different and manifold compoſition of thoſe ſpecies as they ſtrike our eyes. So is it with the uſeful and the beautiful, with the noxious and the ugly. Utility aſſumes the form of beauty, and noxiouſneſs of uglineſs, as beauty becomes to us elegance when aſſociated with a proportional ſmallneſs, majeſty when united with a certain degree of greatneſs, &c. or as the ſimultaneous impreſſion is differently compounded, and aſſociated with collateral circumſtances. Secondly; If we examine the appearance of beauty and uglineſs, ſeparating thoſe parts, the united or rather compound effect of which excites in us the perception of uglineſs and beauty, and diſtinguiſhing them as far as poſſible from each other, our proceſs will at laſt bring us to a diſcovery of utility, fitneſs, or conduciveneſs to ſome end. If we change our poſition with reſpect to the object of our perceptions, our view will not be ſo variouſly complicated, or two or more parts of it will repreſent to us a different whole. In this caſe, either the illuſion will wholly vaniſh, and with it the perception of beauty or uglineſs, whilſt we ſee the naked truth, or the bare utility or noxiouſneſs of the object; or its beauty will adorn itſelf with the new charms of elegance, gracefulneſs, or majeſty, and its uglineſs will appear under the diſguſting ſhape of inelegance, brutality or meanneſs. Had a fly the moſt refined taſte that man ever poſſeſſed, it muſt be inſenſible to the beauty of St. Peter's, as its limited ſight would want that range neceſſary at one view to take in the whole, whence its effect is produced. Gulliver was blind to the charms of the lovely Brobdignagian, becauſe he was ſo near to the individual parts and traits of the gigantic fair, that his microſcopic eye had time and opportunity to examine the ingredients of her beauty one by one, whilſt he was unable to ſurvey and contemplate the whole at once. He was in the caſe of thoſe who look cloſely at a freſco painting. On the other hand, however, an object may be too ſmall to excite in us perceptions of beauty or uglineſs. Its conſtituent parts may appear to us too confuſed to admit of diſtinction, and be inſuſceptible of any compoſition in our eyes. If, however, we approach nearer to ſuch an object, or it be magnified to us by the help of art, it may appear to us beautiful or ugly.

As to moral perceptions, the appearances on which they bottom are ſuſceptible of a great and variable multifariouſneſs. Phyſical good and evil, or utility and noxiouſneſs, are the real grounds of theſe appearances, and the not developed but compounded obſervation of their particular nature, magnitude, importance, and duration, is the perception which anſwers to the appearance. Were there ſuch inſignificant characters, ſuch impotent and fruitleſs actions, as to afford the obſerver no mediate or immediate

proſpect

proſpect of utility or detriment, they would be by no means an object of moral perception. As ſoon, however, as we diſcover in an action any intention of the agent, it awakens our moral feelings. But this intention relates to ſome natural good or evil, without which it is not to be conceived. The intelligent obſerver cannot ſeparate this intention from the diſpoſition and frame of the mind that cheriſhes and acts according to it. It is to him a ſketch of the whole character, a manifeſtation of all the good and evil variouſly combined in it. How complex, how variouſly compounded ſhall we find the idea of him who examines an intentional action, if that idea be traced back to its origin! To an obſerver, then, who can form a conception of intention, muſt not the ſame action, when performed intentionally, have a very different appearance, and conſequently excite very different ſenſations, from what it does when happening by chance? Muſt we not feel very differently for the death of a man killed by an enemy, and for that of one cruſhed by a falling tree? Still more different muſt the appearances and ſenſations in the two caſes be, if in the former we combine into one view with the action itſelf, and the intention, the idea of its conſequences, or the good and evil which it produces and may occaſion. In the latter caſe, indeed, the conſequences of the action will alſo be brought into conſideration, but they will not be by far ſo complicated, important, or durable, as thoſe in the former, or intentional action. It would carry me much too far, were I circumſtantially to ſhew, how the appearance of an intentional act is in effect, with reſpect to its conſequences, very differently compounded and modified from that of a fortuitous occurrence. In the latter, permit me juſt to obſerve, the cauſe of the evil is tranſient, and leads us not to fear eaſily another of the like kind: whilſt alſo what is extrinſic to the cauſe itſelf comes not into contemplation, and makes no part of the appearance. In the former, our perceptions extend to the agent, his future fate, and the influence of the action upon him. In both caſes our moral ſurvey includes, with the ſufferer, all thoſe who take a part in his fate, as relations, friends, or enemies. But in the caſe of premeditated murder we embrace all thoſe who as members of the community have a ſimilar fate to apprehend, and even in an eſpecial manner ourſelves, intermingling with our ideas ſuch a care and reſpect to the future, as cannot take place in an accidental occurrence.

In my opinion, what I have here advanced, concerning the nature of appearances, and the affinity between phyſical and moral beauty, may ſuffice to remove the objection raiſed againſt our hypotheſis from the difference of the ſenſations excited by phyſical and moral evil. I perceive, however, that the perceptions or ideas of juſtice and injuſtice require to be ſtill farther developed. Which of the two I ought to ſtyle them I am in doubt; as they ſeem to me to occupy a middle place between perceptions and ideas. On the one hand, they are not ſufficiently clear and explicit to merit the appellation of ideas: on the other, they ſeem to me to have too much clearneſs and preciſion to be deemed merely perceptions. They are not produced in us by means of an indiſcriminate compound view, as are thoſe of beauty and uglineſs, and ſo far

ought not to be ſtyled perceptions. We always acquire our notions of juſtice and injuſtice by comparing an intention or action with ſome rule, and diſcovering its agreement with or contrariety to it. As far as compariſon itſelf, and the conception of a concordant or diſcordant proportion, are works of the underſtanding, they ſeem to belong to the claſs of intellectual ideas. But as by the help of the rule (which is a general propoſition, that expreſſes how the conduct muſt be regulated to attain a certain good, or to avoid a certain evil) the underſtanding is relieved from a great part of the labour of inquiry, ſo that it needs not carry on its proſpect of the future, and calculation or weighing of the good and bad conſequences of an action ſo far as to the diſcovery of its noxiouſneſs or utility, the words juſt or unjuſt never clearly point out to us the phyſical good to be attained, or evil to be avoided, but the former ſignifies only a conformity to the rule, and the latter a non-conformity to it: ſo far are theſe notions at leaſt half founded on an appearance, thus diſtinguiſhing themſelves from ideas of utility and noxiouſneſs, and ſtanding in the midſt, as I have obſerved, between the perceptions of moral beauty and uglineſs, and the ideas of utility and noxiouſneſs. We will endeavour to render this ſomewhat clearer. We have made ſuch rules of conduct, or they have been delivered to us, with a view of ſaving us the trouble of examining on every occaſion all the poſſible conſequences of an action. They aſſiſt our inability and negligence, which would prevent us from eſtimating with accuracy the good and evil that would follow our reſolutions. But as theſe rules ſupply the place of our own examining the good and bad conſequences of our actions, and generally, or indeed almoſt always, ſerve as a touchſtone with the deciſions of which we ſatisfy ourſelves, we are accuſtomed to conſider them as ſomething original, which admits not of being traced to a higher ſource; juſt as we do in criticiſm with the rules and examples of great maſters; and our approbation, or diſapprobation of an action, are juſt as much excited by them, as if we took in all the conſequences of that action at one view, or had an immediate proſpect of the good and evil it included. No wonder, then, that this is ſomewhat different from moral perception. The appearance is leſs multifarious. Inſtead of the diverſely multiplied and diſtant conſequences, which we muſt contemplate or revolve in our thoughts, if we would eſtimate an action, not according to ſome rule, but from calculation of the obſcurely perceived or clearly diſcovered good and evil included in it, we conſider merely the rule, with the reſpect it has acquired from its author, long cuſtom, the conſent of mankind, and its true or ſuppoſed indiſpenſability, taking into the account the determinate good it promiſes thoſe who are obedient to it, and the determinate evil with which it threatens the diſobedient. The rule itſelf is more determinate, and the caſes that occur are more preciſely eſtimated by it, in proportion as the good or evil is more clearly perceived. Its rewards and puniſhments are more concentrated, more intelligibly propoſed, and eſpecially more certain and inevitable, than the good or evil which might enſue from the action itſelf. From the latter circumſtance ariſe the ideas of guilt and innocence; when,

when, namely, the evil conſequent to an action is, by means of a rule, held out to us as near and inevitable, ſo that we cannot think on the action without its conſequences, and know and foreſee, previous to the action, that they muſt affect us from our own choice and determination, we pronounce ourſelves not free from theſe conſequences, that is, we find ourſelves guilty. Let the ſlighteſt circumſtance be changed, the perception is weakened or annihilated. If the evil following an action be not an inevitable conſequence of it, or not near enough to be aſcribed to it, or if the agent have not previouſly known it to be a conſequence of his action, he would conſider himſelf in the firſt inſtance leſs guilty, in the laſt wholly innocent.

To confirm the hypotheſis here delivered I will mention ſome facts well known by experience. Firſt; The more a man has exerted himſelf to inveſtigate the particular component parts of moral perceptions, that is, the natural good and evil compriſed therein, the different nature, relation, and importance of theſe, &c. the more will he be ſuſceptible of nice and juſt perceptions of morality. Theſe perceptions will be ſtrengthened and rendered more luminous, as the various parts which conſtitute the whole will have a more powerful effect, than when ſuperficially viewed or unnoticed. Thus a beautiful ſymphony delights a connoiſſeur, who has ſtudied its tones, and their various relations, in a manner very different from that in which it affects the unlearned ear. A floriſt, capable of diſcriminating the various parts from the combined harmony of which the beauty of a flower is produced, finds far more pleaſure in contemplating this beauty than he who ſurveys it with an unſkilful eye. Thus the moral ſenſe is generally more groſs and dull in the ignorant multitude, than in the well educated and learned. In thoſe, however, who have not at leaſt ſome general though confuſed notions of utility and noxiouſneſs in actions, no moral taſte exiſts. Experience farther teaches us, that the examination of the particular component parts of beauty of any kind, if it too frequently and almoſt conſtantly employ the mind, is injurious to our feelings. The mind habituates itſelf to a neglect of the compound ſurvey of the whole, and its delight is to analyſe it, whence it falls into a way of contemplating its object microſcopically, and piece by piece. Thus many antiquarians, many philologiſts, have deſtroyed their taſte for the exquiſite beauty of works of art and genius: the ſpeculative moraliſt, who conſiders moral objects merely with the underſtanding, and for the underſtanding, and the acute caſuiſt, who diſſects and divides virtue and vice with ſo much pains and labour, render themſelves by degrees in a great meaſure incapable of a lively perception of what is beautiful or ugly, becoming or unbecoming, in character, manners, or actions. Finally, if any one had wholly deſtroyed or loſt his moral taſte, more powerful means of exciting and ſharpening his moral perceptions could not be found, than to place before his eyes unexpected, moving, boldly drawn ſcenes of the varied and extenſive happineſs of virtue, and as ſtrong portraits of the miſery of vice. As far as the moral ſenſe is capable of being whetted or reſtored, it muſt be effected by ſtrongly impreſſed notions of the good accruing from virtue, and the evil conſequent to

vice, whilſt culpable inſenſibility finds in the world, and in real life, what Hogarth has delineated in his moral pictures. The father in Rouſſeau's Emilius employed the ſame means to excite an abhorrence of the exceſſes of debauchery in his ſon, who was on the point of giving the reins to his wild deſires: he led him to an hoſpital, where the fearful ſcenes of pain and woe diſplayed on every hand, in the perſons of thoſe who had fallen victims to their luſts, could not but warn him from following their example.

The ſecond objection made to our hypotheſis, that it deſtroys the proper ſignification, force, and value of the moral expreſſions of praiſe and blame, or that it enfeebles or annihilates the impreſſions of moral beauty and uglineſs, may without difficulty be removed. Theſe never can be the conſequences of our inquiries. Moral relations are fixed conſtant appearances, eſtabliſhed on the nature of their objects, and of our minds. They infallibly preſent themſelves whenever we attentively conſider actions, characters, or manners, and muſt unavoidably produce the perceptions which anſwer to them. Every man of underſtanding conſiders the ſymmetry of a building as a mere appearance; yet can he not reaſon away its agreeable effect on his optic nerves, or the diſagreeable one of its oppoſite. To Newton's eye, returning from the contemplation of his priſm, the union of the primitive colours muſt have given the appearance of whiteneſs, as well as to that of the moſt ignorant peaſant.

The author of our nature had unqueſtionably wiſe views, when he ſo formed our minds, that good and evil proceeding from an intelligent being ſhould have different appearances to man, and excite different perceptions in him, from what they do when occaſioned by an unintelligent cauſe. If we would have juſt notions of theſe final cauſes, let us compare the moral marks of character and actions, ſo far as they are conſidered as beautiful or ugly, ſeemly or unſeemly, virtuous or wicked, with the impreſſion by which the certain worth of a piece of money is aſcertained, when the ſovereign or ſtate intend not to affix thereby any nominal value above the intrinſic worth of the coin, but merely to determine the real value of the metal. If we had a ſenſe juſt and delicate enough to enable us with certainty and readineſs to diſtinguiſh the exact fineneſs, weight, and value of any piece of gold or ſilver offered us, the impreſſion would be ſuperfluous and unneceſſary: but as we want this juſt, delicate, and ready power of diſtinguiſhing, the impreſſion on a coin muſt teach us its true worth, and this not only ſaves us the trouble of weighing and aſſaying it, but alſo ſecures us from error and deception. In like manner, the moral characters, the tokens of praiſe or blame, which our perceptions impreſs on actions, tempers, or manners, would be unneceſſary and ſuperfluous, if we poſſeſſed ſuch a clear, juſt, and ready penetration of the natural good and evil to be found in moral objects, or ariſing from them, that we could with accuracy ſeparate them from each other, give to each its due worth and proper value, and appreciate the object as a whole, not only from its preſent internal conſtitution, but with reſpect to its relations, tendencies, and conſequences. This penetration, however, we do not poſſeſs. To ſupply its place, therefore, it is uſeful and neceſſary, that the moral ſenſe ſhould

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ſtamp on actions and manners a mark eaſy to be known. As reaſon cannot conveniently aſſay her objects by ſeparating them into their component parts, the ſynthetic, not analytic view, ſupplies the place of a clear knowledge, and accurate calculation. From the natural good and evil found in moral objects, it creates moral good and evil, or images of moral beauty and uglineſs. Thus, particularly with a view to ſhorten the examination, the queſtion, what is good or bad, juſt or unjuſt, in any particular caſe, is brought before the tribunal of perception. What we loſe in clearneſs by theſe means, is made up by the quickneſs and ſtrength of our feelings.

It is now time, a little farther to illuſtrate the application which Hartley makes of the foregoing hypotheſis. He ſhews from it the inſignificancy of the objection, that, from the ſyſtem of neceſſity, God muſt be the author of ſin. In reſpect to God, ſays he, what we call ſin is nothing but natural evil, ſo far as it is modified by, occaſioned by, and pervades the voluntary actions of men. We cannot aſcribe to the moſt perfect intelligence, which ſees nothing confuſedly, but every thing clearly and diſtinctly, the perceptions which moral appearances excite in us, ſo far at leaſt as they differ from thoſe which the view of natural evil is capable of producing. He ſees what conſtitutes the real ground of theſe appearances. Hence it follows, that the whole queſtion, whether God be the author of ſin, has no meaning, or this: does natural evil in general, and particularly that which ariſes from men's voluntary actions, enter into the deſign of God? If, however, we attribute to God our perceptions, and what this evil ſeems to us, the queſtion has no meaning. In ſinful actions God ſees the cauſe of them, the imperfection and limited faculties of the creatures, which, active or paſſive, participate them. He ſees the evil thence ariſing, previouſly conſidered ſeparately and individually. In and for itſelf this evil is not his purpoſe: but as it is connected with the whole ſcheme of his creation, and this whole ſcheme is by him approved, as in it particular evil tends to general good, and as the goodneſs and happineſs of finite creatures without this evil would be impoſſible, it muſt enter into his deſign. This deſign required the greateſt poſſible variety of creatures: in the ſcale of being, then, there muſt have been a place for man; and a certain degree of limitation and imperfection, to diſtinguiſh him, as well from the creatures above as from thoſe below, muſt have been eſſential to him. If the errors, faults, and imperfections of man be deducible from his eſſential and neceſſary limitation, it is not poſſible for him to be without theſe, and ſtill be man. His Creator is fully juſtified if no human being, the whole conſidered, be juſtified in deſpiſing the gift of exiſtence. He is fully juſtified, if man be from his nature capable of no happineſs, or a happineſs of a growing kind. Such a diſpoſition preſuppoſes a growing perfection, and at the beginning of man's exiſtence the loweſt degree of that perfection which is proper to him. For the ſake of brevity I may here refer to what I have ſaid in a preceding remark (p. 590.). If it be now aſked: whence ariſes the moral evil of human nature? I would anſwer: it is the conſequence of man's limited faculties, and capacity for perfection.

perfection. The latter renders it neceſſary, that he ſhould be placed on the loweſt ſtep, in order that his faculties may have an opportunity of unfolding themſelves gradually: he muſt be a ſenſitive before he is a rational being. But ſhould he have a capacity for reaſon, or be an agent chooſing from his own judgment, he muſt poſſeſs a propenſity to agency as ſoon as he can act. He muſt early feel his deſtination to act after his own inclination, and on every occaſion follow this propenſity. He muſt fly, or at leaſt *will* to raiſe himſelf, before he has wings. I ſhall here employ a common remark, yet not the leſs to the purpoſe: man, whilſt a merely ſenſitive animal, exerts his agency, in the ſame manner as the ſteer, that feels himſelf deſtined to wear horns, butts with his head before his horns appear. He muſt oppoſe every thing that tends to obſtruct or circumſcribe this propenſity. Every injunction or reſtraint is an odious compulſion, againſt which his freedom revolts. He will not be led; he will guide himſelf. But ſince he has not yet the neceſſary knowledge, which he muſt collect from experience, he is expoſed to the illuſions of his ſenſes, and thus muſt frequently err, and chooſe evil for good. From often repeated error he will acquire a readineſs of going aſtray, which tardy reaſon will find difficult to deſtroy; and propenſities will ariſe, which a more juſt and perfect knowledge of things will not remove without pain and toil. Thus the moral depravity of man proceeds from the limited ſtate and conſtitution eſſential to his nature. Now as moral evil is a conſequence of metaphyſical evil, and nothing more than natural evil, the grand queſtion, whence ariſes moral evil? may be reduced to this, whence ariſes natural evil? and ultimately to this, what is the cauſe of metaphyſical evil? This queſtion of the origin of evil, ſo important to the peace of mankind, and ſo puzzling to human underſtanding, may, in my opinion, be reduced to this: when God gave exiſtence to beings out of himſelf, he muſt have made them limited, or have multiplied himſelf: if the latter be an impoſſibility, we muſt grant that his goodneſs and wiſdom might produce beings with more or fewer limitations.

PROP. CXV. p. 347.

Whether philoſophical Free-Will be conſiſtent with the Power and Knowledge of God.

Our author here ſhews in a ſolid and concluſive manner, that philoſophical free-will is inconſiſtent with the divine attributes of power and knowledge. It is not conſiſtent with God's power, ſince by it his power would be limited, and hence be no longer infinite: for as far as man exerciſed this free-will he would be independent of God. It may be ſaid, indeed, that he receives this free-will from God, and thus is dependent on him with reſpect to the poſſeſſion of it: but as ſoon as he puts it into action, he ceaſes to be under God's power, and withdraws himſelf from his all-embracing influence.

ence. If God have beſtowed on man ſuch a free-will, he has given him a power of freeing himſelf from his ſubjection and dependency. This ſuppoſition brings to our minds, in ſome meaſure, what the poet ſaid of Jupiter, who after he had made gold, was aſtoniſhed at the power of his own work, and confeſſed, that he had created a divinity more mighty than himſelf. As this charge may appear too ſtrong to the partiſans of philoſophical free-will, we will ſhew in another way, that this free-will places man without the ſphere of God's power and influence. We cannot poſſibly form any idea of the influence of God's power, but that it acts upon its ſubject either mediately, or immediately. Any other way is as inconceivable as power without effect or influence. If man exerciſe philoſophical free-will, God's power cannot act on him immediately, as that would be neceſſity. Neither does it act mediately, for then it would act by means of cauſes and effects, or of ſecondary cauſes. This is equally inconſiſtent with philoſophical free-will, by which the chain of cauſes is broken. As often as man exerciſes this free-will he cuts aſunder that chain by which God holds and draws all things. Either he is himſelf the creator of human actions, or chance is the lord and maſter of them, and forms a new chain which laſts till another chance breaks it, or produces nothing but iſolated links united to no others. Whatever is effected by philoſophical free-will has the original grounds of its poſſibility in the will of God, as far as chance is eſtabliſhed, and authorized to produce men's actions, by that will: but that of two poſſible and oppoſite actions one only takes place, is no farther aſcribable to the will of God. Whilſt God has left this to chance to determine, he has ſo far ſet limits to his own power, and left himſelf to prefer a certain action or its oppoſite, which ever blind chance, which he has placed by his ſide as a fellow-creator, wills to be produced. In ſuch an action he can no more have a determinate will, than a man in an event which he leaves to the caſt of a die. No one can in this caſe determine whether he ſhall win or loſe: and when he leaves it to chance, to decide which of the two ſhall happen, it is evident, that he himſelf determines neither of the two. So is it with God, on the ſuppoſition of philoſophical free-will. In it there is always a chance, over which he has no power and influence becauſe it is a chance. If we ſay, that he can influence the event by the production and connection of circumſtances, that can only take place by limiting or altogether removing the aſſumed chance, or ſo far as man is actually determined *ab extra* in the exerciſe of his free-will. If it be ſaid God muſt have thus limited his power when he willed the creating man a free-agent; this is taking for granted, that philoſophical free-will is eſſential to man's agency, a ſuppoſition which has already been ſhewn to be unfounded. If it be ſaid farther, that man can be ſubject to no moral imputation, unleſs God have ſo limited his power; to what has before been ſaid on the ſubject we may add, that, whilſt on this ſcheme of free-will man's actions are ſubject to chance, it is not more proper to impute to him merit or demerit for his actions, than if they were ſubject to neceſſity. If the atoms of Epicurus had by their concourſe formed miſſhapen maſſes, inſtead of regular bodies, would they

they have been more culpable, or deſerving of puniſhment, if under the guidance of chance, than if ſubject to the laws of neceſſity? (We call in this hypotheſis with more confidence, as it is in fact the ſame with the philoſophical free-will aſcribed to man, except that the latter, whilſt under the dominion of chance, admits conſciouſneſs, the former excludes it). If imputation and puniſhment be abſurd and irrational, they muſt be ſo in the higheſt degree, on the ſuppoſition of chance, as being altogether without end or uſe. Finally, if it be advanced, that God voluntarily ſet limits to his power, and thus they are not to be conſidered as derogating or detracting from his greatneſs; it muſt be for want of reflecting, that this would be ſuch a limitation of his authority, as would render it impoſſible for him to uphold and govern the world, in a great meaſure at leaſt, if not altogether. Creatures endowed with philoſophical free-will, whether they exerciſe it conſtantly or occaſionally, are wholly incapable of moral rule. The end of ſuch rule is to lead men to certain purpoſes by ſetting before them motives. When theſe motives have a certain adequacy to the underſtanding and will, and a determinate power on the mind, men are governed, or the intended purpoſes may be attained with and by them. But to this effect it is neceſſary, that they have no power of reſiſting thoſe motives which are to them the ſtrongeſt, or have no philoſophical free-will: for by the uſe of this they would at once annul the wiſeſt regulations of their ruler, remaining obſtinate and diſobedient, againſt all knowledge of their own good, and notwithſtanding his giving them every poſſible motive to obedience. This will hold good whether we ſuppoſe God or man to be the ruler of ſuch ſubjects. A human governor, it is true, is not always able to produce ſufficient motives, and frequently knows not what motives will be the ſtrongeſt and moſt powerful in certain caſes. Hence he cannot lead his ſubjects to his purpoſes ſo fully as he would, nor exerciſe a perfect dominion over them. But the all-wiſe and omnipotent God, who at the ſame time that he knows what are the ſtrongeſt motives in every caſe, is capable of producing them, ſhould maintain the moſt perfect and unlimited authority over his rational creatures. This authority, however, would be circumſcribed, and nearly annihilated, if ungovernable man could render himſelf inſenſible to all motives, and could render vain by his free-will all the meaſures of divine power, and all the ordinances of divine wiſdom. Theſe abſurd conſequences flow from the doctrine of philoſophical free-will. Experience, however, which teaches us, that man is actually governed by man, and in a great meaſure led to the purpoſes of his ruler, and that many may be ſubjected to the will and nod of one, makes not a little againſt ſuch a free-will. If every ſubject in an extenſive kingdom, governed by an abſolute monarch, exerciſed philoſophical free-will, the whole ſum of its effects muſt be capable of being traced in an obvious and convincing manner. From the additions which each individual philoſophical free-will would give to the general will, ſuch an unbridled, fantaſtic, monſtrous chaos would ultimately ariſe, that a concordant and univerſal will, moving to any determinate end, would be an utter impoſſibility. If, however, we ſuppoſe nothing of this

this confuſion and diſorder in a great and wiſely regulated ſtate, but rather find, that all its members are animated with *one* mind, and moved by *one* will, there muſt be ſome means (and theſe means can be nothing but motives) capable of imparting *one* will to many men, and of infallibly attaining their end, ſince they effect it in ſo diſtinguiſhed a manner. May we not, then, carry our concluſions from the leſs to the greater? If man can ſo govern man, how much more may God rule him to the fulfilling of his will?

That the foreknowledge of God is incompatible with philoſophical free-will is clearly ſhewn by our author, and has already been ſufficiently demonſtrated by others. The defenders of this free-will have, indeed, already given up thus much to the arguments of their opponents, that they content themſelves with aſcribing to God a probable foreknowledge of men's actions. But Mendelſſohn, in his excellent Treatiſe on Probability, has proved in a new and incontrovertible manner, that a probable foreknowledge is abſolutely inconſiſtent with philoſophical free-will. If, ſays he, God have a probable foreknowledge with reſpect to our free actions, the degree of this probability muſt be determinate, as there cannot be a quantity without a determinate degree, if, as in this caſe, it ultimately will be. But if the degree of the divine probability be determinate, the proportion which the grounds of probability known to God bear to certainty muſt be given, as from this proportion the degree of probability is to be eſtimated. The grounds of probability are all thoſe *data* from which the truth is kownn, and which, if we have them all, produce certainty, if we have a greater or leſs number of them, produce a higher or lower degree of probability. Now whence does God take theſe grounds of probability? Neceſſarily from the circumſtances in which the free agent is placed, and from the motives and incentives that determine his choice. But all the circumſtances in which the agent is placed, and all his motives and incentives are inſufficient to produce a certainty of what choice he will make. Thus the degree of probability cannot be determined from the proportion which the poſitive motives bear to the poſitive and negative ones taken together: otherwiſe theſe motives muſt include ſome grounds from which this free agent is determined to one action rather than to another. Thus the more poſitive or negative motives act upon our will, the greater the probability, that we ſhall do or avoid a thing. If it were poſſible, that infinitely many motives ſhould work upon our will to the production of a certain action, they would conſtitute an infinite degree of probability, or a certainty, as according to the opinion of theſe philoſophers the *maximum* of our free actions is only to be ſought *in infinito*. Now as in every particular caſe only a finite number of motives act upon us, the probability of the divine preſcience is to certainty, as the finite number of the motives that occaſion our choice is to an infinite number of the ſame, or the degree of the divine foreknowledge $= 0$. Nothing, in my opinion, can be more juſt and clear than this demonſtration. The more am I aſtoniſhed, that Rautenberg in a remark on Hume's Eſſays on the firſt Principles of Morality and Natural Religion, tranſlated by him, ſhould diſpute this argument, or rather, admitting the premiſes, deny the concluſion.

He conceives, that Mendelſſohn aſſumes, without any grounds, that all the circumſtances in which a free agent is placed do not conſtitute a certainty, which can only ariſe from an infinite number of motives: and rather believes, that from a finite number ſuch a degree of force may ariſe, as to incline the will to the one ſide, particularly when no motives, or very feeble ones only, exiſt on the other. But does not this opponent of Mendelſſohn perceive, that, according to the ſyſtem in diſpute, the circumſtances in which a free agent is placed cannot poſſibly conſtitute certainty? For did they amount to a certainty, this free agent muſt in reality be determined by circumſtances, he muſt act according to this determination and could not act otherwiſe, conſequently the freedom of indifferency, or the freedom by which man can reſiſt thoſe motives that are to him the ſtrongeſt at the time, completely falls to the ground. If he can reſiſt theſe circumſtances he is not determined by them. If he be not determined by them, there are no grounds from which his reſolution can be known. If a given number of motives certainly incline the will to one ſide, he who knows all theſe motives, cannot be deemed to have a probable foreknowledge, as he muſt unqueſtionably poſſeſs a certain preſcience. But this is ever and ſolely the caſe, if the will be determined by the motives actually preſent, and by nothing elſe. It is not neceſſary to add, that every ſuch caſe abſolutely excludes ſuch a freedom as enables a man to act in oppoſition to his motives, and independent of them, ſo that they are inſufficient to determine him, and their power muſt be ſupplied by ſomething elſe, not to be defined, if a determination take place. Rautenberg alſo advances, that, whilſt we are ignorant of the manner in which God knows things, we cannot infer any objection to a demonſtrated truth from his knowledge. Not to mention, that philoſophical free-will is by no means a demonſtrated truth, this is in fact ſaying nothing to the purpoſe, as Hartley very juſtly ſhews. We freely confeſs, that no argument againſt philoſophical free-will is here deduced from the nature of the divine knowledge and preſcience; but from the mere exiſtence of God's foreknowledge of men's actions, let it happen however it may, we conclude, that it is not impoſſible to foreknow thoſe actions, and conſequently, that they cannot be indeterminate and uncertain, ſince were they ſo they could not be foreknown, either by God or by any other intelligence, as what is abſolutely impoſſible, and includes a contradiction, is not more ſubject to the power of God, than to that of any other being. To be indeterminate and abſolutely uncertain in itſelf, and at the ſame time to be foreknown as certain and determinate, conſtitute as formal and palpable a contradiction as can be conceived. The one annihilates the other. Now if the infinity of God with reſpect to his other attributes cannot make any contradiction poſſible, however infinite his knowledge may be, it extends to impoſſibilities no more than does his power. But to be uncertain and fortuitous, and yet to be foreknown as certain and neceſſary, conſtitutes a non-entity.

PROP. CXVIII. p. 354.

On Inſpiration.

THE different opinions held concerning divine inſpiration may be conveniently reduced to three. Theſe our author mentions, with the grounds for them; but ſtill ſome other grounds may be added, There are alſo ſome general conſiderations which muſt have weight with every rational and thinking follower of the chriſtian religion, in deciding to which of the three the preference ſhould be given. This muſt firſt of all be laid down as a principle, as it indeed is by Hartley, that, which ever of the three be embraced, we pay ſuch reſpect to revelation, as to be amended, aſſured, and inſtructed in the way of ſalvation. Thus he who adopts the loweſt hypotheſis conſiders the ſcripture as his rule of faith and life, and as the ground of his hopes and expectations. But whether his opinion of divine inſpiration be in reality ſufficient to this purpoſe or not, appears to me not to be ſo properly determinable on general principles, and from a general view, as from the particular way of thinking of the party, and from the point of view from which he forms his judgment. It may ſeem to us, that no one can attain a true confidence through revelation, or a practical conviction of the truth of its doctrines, if he have not ſo high an opinion of its divine origin and authority as appears to us neceſſary for our own truſt and conviction. In this, however, we frequently err. How many pious chriſtians are ſhocked and hurt by the various readings of the ſcriptures, and the detection of faults that have crept into the modern text from careleſſneſs and ignorance! Unqueſtionably this ariſes from their opinion of the divine origin of the ſacred books extending itſelf to the moſt trifling circumſtances, to words, ſyllables, and letters, with which overſtretched notion the remark of ſuch errors does not accord. To ſtill more is the idea, that premeditated additions, defalcations, or corruptions of the ſcriptures have taken place, totally inadmiſſible. Now as theſe find ſuch a ſuppoſition incompatible with their high veneration for the ſcriptures, they are too prone to conclude, that all who aſſert, or even think poſſible, ſuch falſifications of particular paſſages, altogether reject the divine authority of the whole. It will probably be admitted, that in this caſe the inference from ourſelves to others is precipitate and unjuſt. But we muſt on the ſame principles admit, that it is equally unjuſt for thoſe who entertain the higheſt poſſible opinion of divine inſpiration, to deny all true and wholeſome reverence for the ſcriptures to thoſe who content themſelves with the loweſt. I ſay on the ſame principles. For, if every thing in the ſcriptures, even to each individual word, ſyllable, and letter, were the immediate work of God, it is but reaſonable to conclude, that the ſame cauſes which moved God himſelf immediately and miraculouſly to fix and determine every thing in the ſcriptures, even to the moſt unimportant objects, would

have moved him to have ſuperintended the ſecurity and preſervation of what he had ſo exactly and minutely eſtabliſhed. Were it neceſſary, that every word and letter ſhould have been inſpired, we muſt alſo ſuppoſe it neceſſary, that every inſpired word ſhould retain the letters appointed by God, and be incapable of alteration by human words or letters. Yes, perhaps ſome one will ſay, but how many continual miracles muſt be requiſite to this! Let us however conſider, that, from the ſuppoſition, ſuch a minute inſpiration being neceſſary to the ſalvation of mankind, if it could and muſt have happened, its requiring more or fewer miracles is of no moment to the omnipotence of God. It may be ſaid, if every thing in the ſcriptures were not ſo accurately and minutely determined by divine inſpiration, we could not have ſufficient certainty and confidence in the divine doctrines. Were this true, there muſt be no blunders of copyiſts, no inaccuracy in the text, and no accidental error in the ſcriptures; or each individual reader of them muſt have an infallible ſenſe, by which he might diſtinguiſh the divine original from the additions made by men. Even had he this, in places where alterations have actually been made, the requiſite certainty and confidence could not poſſibly be obtained: and if a man extend his faith to words and letters, this very circumſtance muſt greatly embarraſs him. If the pretext, that ſo many continual miracles are neceſſary to preſerve an unalterable purity of the text, be at all valid, the general principle muſt be firſt admitted, that God performs as few miracles as poſſible, and never more than are indiſpenſably neceſſary to the attainment of his divine purpoſes. But it would be the extreme of raſhneſs in us to determine how many or how few miracles are requiſite to anſwer the deſigns of God. However, when we find, that a certain miracle has not produced certain effects, we may venture humbly to preſume, that ſuch a miracle was not neceſſary. But here this is actually the caſe. For ſince ſo many variations are to be found in reſpect to words, ſyllables, and letters, he who ſees, and is conſcious of theſe variations, cannot poſſibly confirm his faith and hopes by the notion, that the words, ſyllables, and letters which he has before him were immediately inſpired by God.

Should any one hence conclude, that in this caſe we can never be certain of the true ſenſe of any book in the Bible, or of any part of a book; I anſwer, that, in determining the meaning of a whole book, or of any connected propoſition, we muſt not attend ſo much to particular words, as to the connection of all the words taken together, the ſcope of the whole, and all concomitant circumſtances. Thus, though a particular word might be falſified, we may be ſufficiently certain of the tenour of the whole: for it is highly improbable, that the whole ſhould be falſified; and were there any part altogether corrupted and erroneous, either it would have no rational meaning, or it would have a ſenſe contradictory to the purpoſe of its writer, and the general tenour of the ſcriptures. In this caſe, we could make no uſe of ſuch a text, particularly if it were not to be amended and reſtored by the help of criticiſm, and a compariſon with other manuſcripts and verſions. If, however, a text of ſcripture

ture have an intelligible meaning, conſonant to the deſigns of its divine author, and the general ſenſe of the whole, we may be ſufficiently certain, that it is not throughout altered and corrupted. But this does not prevent a word here and there in it from being erroneous: and hence it follows, that the more we build on particular words in our expoſition, and the leſs we conſider the connection of the whole, the purpoſe of the writer, and the like, in explaining the ſenſe of a paſſage, the leſs certain muſt our interpretation be. However numerous the faults and errors that may have crept into a book of Cicero, if the whole afford an intelligible meaning, we can determine with ſufficient certainty the ſenſe of the author, and what he intended to ſay, notwithſtanding all theſe errors and imperfections, if we proceed according to the rules of ſound criticiſm. But ſhould we ſet aſide the connection of the whole, ſhutting our eyes againſt the light to be derived from the conſideration of all its parts, and a compariſon of them with each other, and explain his ſyſtem from a ſingle expreſſion, founding our conviction of his deſign to maintain this or that on the authenticity of a word, our certainty would reſt on very ſlight grounds. The leſs probable it is, that all we employ to aſcertain his meaning ſhould be falſified and corrupted, the more certain is our interpretation; for it is far more improbable, that the whole ſhould be erroneous, than that a particular word ſhould be ſo.

Of the ſame nature is the well-known diſpute, whether inſpiration extend only to the ſubject or to the words of holy writ. I do not think, however, that this properly expreſſes the true point in diſpute. This ſhort anſwer may be given to the queſtion couched in ſuch terms: a ſubject without words is inconceivable, ſo that if God inſpired the ſubject, he muſt have inſpired words expreſſing it. But this anſwer decides nothing at bottom: it rather leads to the following queſtions. What is the general notion of inſpiration? How many kinds of inſpiration are there, according to this notion? And how may all this be applied to the holy ſcriptures, and their ſeveral parts?

In the moſt extenſive ſenſe of the word, we may term every communication of our thoughts and perceptions to another, or, which is the ſame thing, every action by which we determine the thoughts and perceptions of another to accord with our thoughts and perceptions an inſpiration. There are as many kinds of inſpiration, therefore, as there are modes in which this may be effected.

The ways in which a man may occaſion certain thoughts and perceptions, or certain notions, judgments, and opinions in another, or in which he may determine him to think and judge thus of a ſubject, and not otherwiſe, are various; and ſo many kinds of inſpiration muſt we admit. Language is the moſt perfect mean of propounding and imparting our thoughts to others. Thus verbal inſpiration, or inſpiration by means of oral or written words, is the firſt and moſt perfect kind. But other ſigns and ſymbols may be employed inſtead of words, to make others acquainted with our thoughts. This may be effected by ſignificant geſtures, or pictures, in particular.

Thus

Thus we have a kind of inſpiration, which, to diſtinguiſh it from the verbal, we may ſtyle figurative or ſymbolical. Farther, we may impart our thoughts on a certain ſubject to another, by placing him in ſuch circumſtances, and affording him ſuch *data* and means of knowledge, that by their uſe and application he muſt neceſſarily be led to the ſame thoughts and perceptions of the ſubject as we have, or as we would impreſs on him. As this ſpecies of inſpiration differs from the preceding ones in more particularly employing the mind and underſtanding of the perſon inſpired, we may term it co-operative inſpiration. Finally, we can conceive of a communication of thoughts by an immediate influence upon the *ſenſorium*, and by its means upon the mind, whereby thoughts are excited and imparted to the intellect, directly producing conceptions, without the interference of any known means. This may be ſtyled immediate inſpiration. I believe that theſe four kinds include the whole of our notion of inſpiration, and conſtitute all its primary diviſions; though, by variouſly combining them, other kinds might be formed, and ſome, if not all, of theſe primary diviſions admit of being ſubdivided.

Inſtead of entering farther into this analyſis, I will inquire into the end that may be propoſed by inſpiration. This end muſt be confined to the perſon inſpired, or to others, or it muſt extend to both. In the firſt inſtance the perſon inſpired muſt receive ſome information, or inſtruction, neceſſary or uſeful to himſelf alone. In the ſecond, he will announce what is uſeful and neceſſary to others. In the third, the inſtruction imparted to him is applicable both to others and himſelf, and he receives it equally for both. If inſpiration have any rational end, a fourth caſe is not to be conceived. In the firſt caſe the inſtruction muſt be perfectly underſtood by the perſon inſpired, otherwiſe he could derive no benefit from its being imparted to him. In the third caſe he muſt underſtand it likewiſe, at leaſt in part though it may not be neceſſary for him to comprehend the whole of it, as a part may concern others alone. So far, however, as he is intereſted in it, what it announces muſt be intelligible to himſelf. In the ſecond caſe which we have mentioned, it is not neceſſary, that he ſhould underſtand what he is to deliver. He is but the meſſenger, conveying inſtructions that may be concealed from his knowledge. In this caſe, the third kind of inſpiration, which we have termed co-operative, would be inadmiſſible; and the fourth, or immediate, would ſcarcely be applicable. For the conceptions produced in the mind by this, which we muſt ſuppoſe ſubject to the general laws of the underſtanding, though excited in an extraordinary and miraculous manner, cannot poſſibly be unintelligible to the mind that forms them, and expreſſes them by words: even were the words anſwering to the ideas imbibed or impreſſed at the ſame time with them, which would render this kind of inſpiration the ſame as to the principal point with the firſt. Both the firſt and ſecond kinds of inſpiration, however, are admiſſible in this caſe. In the firſt and third caſe any of the kinds of inſpiration might take place, though all might not be equally ſuitable, which would depend on the ſubject of the inſpiration. If we would form an accurate judgment of

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the point in queſtion, we ſhould now inquire on what occaſion each kind of inſpiration might be moſt conveniently employed.

The ſubject of inſpiration may be either hiſtorical, or doctrinal; it may relate to occurrences or doctrines. Occurrences may be either paſt, or future; doctrines may be either *credenda*, or *agenda*, articles of faith, or rules of conduct. Let us now conſider what kind of inſpiration would be moſt adequate to each purpoſe. To begin with paſt occurrences. Of theſe either we had teſtimonies, accounts, and traditions, prior to inſpiration, and independent of it, or we had them not. If we had them not, the third kind of inſpiration is evidently inadmiſſible: for there would exiſt no *data*, no ſources of knowledge, by the uſe of which the perſon inſpired might be brought to thoſe notions which were to be imparted to him. Neither is the ſecond ſuitable to the purpoſe, as it would be inadequate to the deſign of delivering a hiſtory in chronological order, with ſcrupulous exactneſs, and hiſtoric truth; conſequently it ought not to be employed where this is requiſite. In this caſe the firſt kind is the moſt convenient, though the fourth might indeed be employed. On the other hand, if oral or written accounts of ſuch occurrences exiſt, though either the firſt or fourth kind might be uſed likewiſe here, yet the third appears to deſerve the preference, for the following reaſons. Firſt, as it is ſufficient to the end, which, conſidering that it is the moſt natural, whilſt the others are ſupernatural, renders it preferable to theſe: ſecondly, as it will exerciſe and improve the mental faculties and underſtanding of thoſe to whom hiſtory is thus inſpired, or to whom knowledge is thus imparted: and, more eſpecially, in the third place, as it is the moſt credible, and adequate to the end of inſpiration, ſo far as the occurrences made known are to be admitted as true by others. To conceive this the more clearly, let us ſuppoſe, that a writer gives a hiſtory of a certain remote period, of which we had accounts before him, and ſtill exiſting in his time, and expreſsly declares, that his hiſtory is not compiled from thoſe accounts, but written in conſequence of immediate inſpiration from God. Now would ſuch a writer be credited by poſterity? Would after-ages rather rely on him, than believe the accounts exiſting elſewhere, in points in which his hiſtory contradicted or deviated from thoſe accounts? Would not rather the pretence of the divine revelation and inſpiration of a hiſtory, which the narrator might have known without theſe, from the accounts exiſting, from the teſtimony of witneſſes of the occurrences, or from his own knowledge (if he be writing the hiſtory of his own time) and which he might have related with ſufficient accuracy by the exerciſe of his own judgment, and the neceſſary examination, be very improbable? Much more credible would the writer's narration be, did he, in expreſs terms, or by the actual uſe of the accounts ſtill extant, limit his claim of divine inſpiration to this, that he wrote his hiſtory at the command of God, endued with ſuch faculties, and placed in ſuch circumſtances, as to be enabled to give the moſt accurate and true account poſſible, from the ſources that were in exiſtence.

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Should the hiſtorian relate ſuch circumſtances and incidents as could not be the fruits of his own underſtanding, being ſuch as a mind merely human could not diſcover, he muſt be indebted for them to a higher revelation. In this caſe the claim of ſuch a revelation would not weaken his credibility, as by it he would be informed of circumſtances, which his mind could not otherwiſe have conceived. If, however, he promulgate no circumſtances or incidents undiſcoverable by human inveſtigation, ſuch an immediate revelation would be unneceſſary and improbable. As to what concerns future events, it muſt be conſidered whether they be delivered with accuracy, and in the ordinary form of hiſtory, or only under general types, with ſome degree of obſcurity, and without a preciſe deſcription of particular circumſtances. If the former, the ſame may be ſaid as of paſt occurrences of which we have no account: if the latter, no one of the kinds is more apt than the ſymbolical; and in all caſes the immediate, with which the ſymbolical may be united. Of doctrines, and rules of conduct, we muſt obſerve, that they will be either altogether arbitrary, that is not ſo connected with the natural or acquired knowledge of the perſon inſpired as to be a regular conſequence of it; or they will not be in this ſenſe arbitrary. If they be the former, they muſt be inſpired after the firſt, ſecond, or fourth manner; and according as they are more or leſs preciſely determined, the firſt and fourth, or the ſecond, will be moſt ſuitable. If the doctrines and precepts be ſuch as might flow from the previous knowledge of the inſpired perſon, the third kind of inſpiration ſeems preferable, principally for theſe reaſons, that thus they would render the ideas of the perſon inſpired more perfect, and exalt his underſtanding, For this purpoſe doctrines and their application muſt be made more clear to him, and moral precepts more engaging, and eaſier to practiſe, whilſt he is inſtructed in the principles on which they are founded.

Before I apply what has been ſaid to the holy ſcriptures in particular, I ſhall make the two following general remarks. In the firſt place, I preſume, that in the inſpiration of the holy ſcriptures, as well as in all other meaſures relative to religion, its foundation, ſupport, and propagation, God employs natural means, or means agreeable to the ordinary courſe of nature, and refrains from extraordinary, ſupernatural, or miraculous ones, as long as the former are ſufficient to effect the purpoſes of God in religion, having recourſe to miracles only when they are abſolutely neceſſary. It is true, that we cannot with certainty determine by reaſoning *a priori* when natural means are ſufficient to the purpoſes of God; but analogy and compariſon may help us to ſome conjectures, and we cannot err very widely from the truth in expecting God to act in the like manner in like inſtances. My ſecond remark is this, that, in ſolving the difficult problem of divine inſpiration, that ſolution, which leaves the feweſt difficulties, perplexities, and contradictions, is to be preferred; rejecting every other, which, inſtead of removing thoſe difficulties, tends rather to make them inexplicable.

I will now examine whether the preceding theory of inſpiration may be applied to the inſpiration of the holy ſcriptures. Let us firſt conſider the different ſubjects of the

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ſacred writings. They contain doctrines, prophecies, and hiſtories. The doctrines are of ſuch a nature, that we may apply to them the forementioned diviſion. There are poſitive doctrines, and arbitrary precepts; not ſo in themſelves, but with reſpect to the underſtanding of man. Thus we may apply to theſe the foregoing conſequence, that they were imparted to mankind by the firſt and fourth kind of inſpiration. God has made known to the inſpired perſon, what he and others ſhould do, by means of an oral or written inſtruction; and this inſtruction was communicated ſupernaturally, as no ordinary or natural inſtruction would have been ſufficient to the purpoſe. But again, natural means were as much as poſſible employed, and the laws of human reaſon as little as might be deviated from. Thus the moſt important inſtruction muſt have been communicated in human guiſe, and in the manner of common information. Superior beings muſt have appeared as men, and uttered human words, or the perſon inſpired muſt at leaſt have heard a human voice. The moſt weighty religious precepts were imparted to the apoſtles by the Son of God in human form, and in a natural manner. In ſome extraordinary caſes only, for which they were not prepared, and in which their ignorance might have led them into great perplexity, a ſupernatural revelation was communicated to them. So far, however, as theſe truths and precepts might have followed of themſelves from their natural and acquired knowledge, we may preſume, that the third ſpecies of inſpiration was combined with the firſt. Thus from the union of theſe two kinds the moſt perfect inſpiration aroſe; whence we may conclude, that they were the moſt uſual, though without excluſion of the ſecond and fourth. Thoſe doctrines and precepts which are not arbitrary, but merely rational, as in ſome of the Pſalms for inſtance, the Proverbs of Solomon, Eccleſiaſtes, and the book of Job, may aptly be referred to the third ſpecies, and the ſame may be ſaid of them as of hiſtory.

Prophecies come under the ſecond and fourth kinds of inſpiration. They are imparted by viſion and ſymbolical perceptions in trances or dreams, in which future events are repreſented as in a picture, or in which human voices and words are heard. This diſtinction is here to be made, that, when the ſubject of the prophecy is made known to the prophet by external types, the ſecond kind takes place: but when it is ſeen or heard by means of an immediate influence on his imagination, the fourth. How far this fourth kind of inſpiration is more or leſs natural, I ſhall not venture to determine. It is ſo far ſupernatural, however, that one man cannot inſpire another by its means, but only God himſelf, or perhaps ſome being ſuperior to man, under his direction: and inaſmuch as we can form no idea of the operation which produces a ſeries of conceptions in the mind, not founded on its former ideas, on its previouſly acquired knowledge, or on any external perceptions, this kind of inſpiration is not only ſupernatural, but the moſt wonderful of all. One thing, however, I muſt obſerve, that it happens for the moſt part, in all probability, if not conſtantly, in a dream or trance. And the reaſon of this ſeems to be, that the perſon inſpired might have a remarkable ground of diſtinction, whereby to diſcriminate the divine inſpiration from his own thoughts and conceptions.

This would be difficult, if not impoſſible, were the inſpiration confounded with the chain of his ordinary conceptions, without any ſtriking mark of diſtinction, and were it preceded by no warning to point it out as extraordinary and divine. A mere internal admonition, that what a man is about to think will be by divine inſpiration, ſeems ſcarcely ſufficient to ſecure him from ſelf-deception, if the admonition be unaccompanied with deciſive external circumſtances, or if the perſon inſpired be aſſured only by his natural conceptions. If ſuch criterions fail, he cannot be certain, that the thought of an approaching inſpiration itſelf is not his own natural conception, and particularly if he be accuſtomed to expect inſpirations from God. This remark is perfectly conſonant to what we learn of immediate inſpiration from the holy ſcriptures. When the prophets ſay: the ſpirit of the Lord is upon me: if we ſuppoſe it to mean, that the ſpirit came over them, or fell upon them, it will unqueſtionably ſignify a ſtate of ſupernatural trance. The prophets received what was revealed to them in viſions and dreams. When Paul was honoured with that high revelation, he was entranced, ſo that he knew not whether he was in the body, or out of the body. Peter ſaw a viſion, when he was inſtructed, that the diſtinction betwixt the Jews and Gentiles ſhould be done away. An angel appeared to him in priſon, to acquaint him, that he ſhould go out of it free. We find, that, in every town upon his journey, the ſpirit informed Paul, by prophets, and not by an indiſcriminate inſpiration, that affliction and bondage awaited him in Jeruſalem. At another time, a man ſtood by him in a dream, telling him what he was to do. Theſe, and many other examples which I could produce, ſeem to ſhew, firſt, that, when an immediate inſpiration took place, it happened in trances or dreams; ſecondly, that, when this did not occur, the divine inſtruction was communicated by means of external appearances, intelligible expreſſions, or other ſigns; and thirdly, that every immediate inſpiration was accompanied with ſuch remarkable and extraordinary circumſtances as convinced both the inſpired perſon and others of a ſupernatural influence.

A knowledge of paſt occurrences was imparted, where it was poſſible, by means of the third ſpecies of inſpiration. Here we may limit the divine inſpiration to a particular call of God, or a requiſition from providence to write (a call that might be communicated to the hiſtorian by means of the remarkable circumſtances in which he was placed) to the indication of the neceſſary materials, to the gift of requiſite attention, ability, and love of truth, and finally to ſuch a combination of circumſtances, as would produce a hiſtory as accurate and perfect as the ſources whence it was derived would admit, and fully adequate to the purpoſe for which it was written. On theſe principles, as it appears to me, ſhould we form our judgment of the hiſtorical writers of the Old Teſtament. They have compiled a true and acccurate hiſtory from the accounts and documents which they had before them. They frequently refer to thoſe more ancient accounts, as the ſources and vouchers of their narration. If in theſe they found circumſtances not true, which however we have no reaſon to preſume, they muſt have recorded them, ſuppoſing them not ſufficiently important to have prevented the deſign and utility

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of their hiſtory. Excepting this caſe, then, which is not a very probable one, we muſt allow them the ſame credibility as a profane hiſtorian, whoſe hiſtory of ancient times is interſperſed with improbable ſtories foreign to his ſubject. This would be ſo far from weakening his authority, that it would rather be a proof of his authenticity: for it was the characteriſtic of the earlieſt ages to relate natural occurrences in a poetical and allegorical ſtyle, to dreſs up true hiſtory in the imagery of fancy, and to give it an appearance of the marvellous, by which none who knew how to ſtrip it of its poetic garb were deceived. Such being the characteriſtic of the firſt ages, and the moſt ancient records we have being written in ſuch a ſtyle, it was neceſſary for the hiſtorian carefully to purſue the ſame track, and by no means diveſt his account of thoſe traits, which would tend to prove his veracity to poſterity.

On theſe principles, the hiſtory of the New Teſtament has a great pre-eminence over that of the Old, in this reſpect, that its writers deliver the hiſtory of their own times, and relate things which they ſaw with their own eyes, and heard with their own ears, or which they received from immediate eye or ear witneſſes. As they tell what they heard from the word of life, what they had ſeen with their eyes, and what they had felt with their hands, or as they had received it from thoſe who ſaw all from the beginning, and were miniſters of the word, and as they relate every thing from the commencement, they have a claim to the confidence of their readers: and when they advance this, they appear by the ſtyle of their hiſtory, to lay claim only to human credibility, though to the higheſt degree of it. If to this we add what has been ſaid of that ſpecies of inſpiration, according to which they wrote, their hiſtory will not want any of that divine authority that can be attributed to the teſtimony of an hiſtorian, who, as I ſhall hereafter ſhew, muſt alſo retain credibility as a man. It will diminiſh the general authority of their hiſtory as little as its utility, let a man decide as he will, whether they could be or actually were exempted from all trifling inaccuracies, or defect of memory, in point of time or other unimportant concomitant circumſtances; or, which is far more probable, in the extraordinary circumſtances in which they were placed, and with their ſcrupulous exactitude, permitted themſelves to leave gaps, where they knew not ſome incident with certainty. We have at leaſt no ſufficient reaſon to ſuppoſe them liable to ſuch faults: and the few apparent contradictions in their accounts may proceed from our ignorance of many particular circumſtances, from their thorough conviction of the truth of their hiſtory, and the neglect of relating events after a regular plan concerted amongſt themſelves thence ariſing, and from the various ſituations and points of view from which they ſaw particular occurrences. Their deviation from chronological order may be defended from the conſideration, that it is by no means an indiſpenſable duty of an hiſtorian to relate events ſtrictly in the order of time, that the ſacred writers never profeſſed to do this, and that their writings are not deficient in order, as they have obſerved that of place, or of ſimilar and correſpondent incidents. This mode of juſtifying them ſeems to me at leaſt far preferable to that of ſuppoſing,

that they have actually followed a ſtrict chronological order, and that the ſame occurrence happened more than once, which is highly improbable.

Thoſe doctrines and precepts which they were capable of deducing from the truths which were known or communicated to them, by the natural powers of their underſtanding, ſeem not to have required an immediate inſpiration. Such an inſpiration would have been of no advantage, and would have converted the ſacred writers into ſpeaking-trumpets, which utter juſt as many words as are put into them, and no more, or amanuenſes, writing only what is dictated to them. Beſides what I have already ſaid on this ſubject, the following reaſons ſeem to prove the reverſe of this ſuppoſition.

In the firſt place, it is apparent from their writings, that what they deliver has been revolved in their own minds. They argue and conclude, they lay down principles and conſequences, and thence frame new inductions. Had they a particular and immediate revelation of what they thus prove, all this would be in ſome reſpects unneceſſary, in others improper. In that caſe, *the Lord ſaid it*, would have been the only valid argument, and a convincing one to thoſe who admitted their divine inſpiration. This argument would have been equally valid for the fundamental truths of their ſyſtem, and for the minuter branches ariſing from their developement. We may require a man to believe us on our words (and who might with more propriety require thus to be believed than the apoſtles, were they immediately inſpired in every thing they wrote?) and ſo far as we have a right to require this we need not enter into any proof of the matter to be believed. What we have to prove, perhaps, is our title to ſuch a belief. Nay, it may ſometimes be injurious to a good cauſe, to permit ourſelves to enter into an unneceſſary demonſtration, as when the proof is in itſelf difficult, and our arguments are not ſufficiently clear and perſuaſive to thoſe whom we would convince. In ſuch a caſe, having waved our greateſt advantage, and appealed to the weight of our arguments, and the judgment of thoſe whom we would convince, we could no longer lay claim to being believed on our aſſertion, but would have unneceſſarily ſubmitted ourſelves to the deciſion of people who were not, perhaps, proper judges of the queſtion. If we do not ſucceed in ſatisfying them with our arguments, we have given them a right to reject our aſſertion. Let any one determine, whether this is not the caſe with the apoſtle Paul, who frequently confirms, what he might have placed beyond a doubt by a mere appeal to that immediate inſpiration from which he ſpoke, by a long ſeries of arguments from revealed truths, invites his readers themſelves, for their conviction, to examine the relation of what he advances to the word of God, and leaves it to a difficult demonſtration *(but theſe are things not eaſy to be underſtood)* to decide, whether it ſhould be admitted, or rejected. His arguments are in themſelves, it is true, neither equivocal nor indeciſive, but they might eaſily be ſo to thoſe whom the apoſtle would convince. At all events, however, this prolixity of argumentation was unneceſſary, and a far more difficult mode of convincing, than an

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appeal to immediate inſpiration, which might have been more eaſily proved, had the apoſtle been in reality immediately inſpired in every thing he wrote.

As what I have hitherto ſaid againſt the immediate inſpiration of the apoſtolic writers, when they do not lay claim to a particular revelation, holds more eſpecially with regard to St. Paul, and his epiſtles, I may be permitted ſome remarks relative to that apoſtle. Peter ſays of him, that in his letters are things difficult to be underſtood. But we could ſcarcely allow this, were the words he utters put into his mouth by the ſpirit of God. In ſuch a caſe we might preſume, that perſpicuity would have been preferred to an obſcure ſtyle. If it be ſaid: the holy ſpirit dictated in the ſtyle in which Paul himſelf would have written: ſuch a dictation appears altogether unneceſſary, as it would not contribute to the elucidation of the learned apoſtle's ideas, or to placing them in a clearer order. Beſides, Peter ſays further, that Paul wrote according to the wiſdom given to him. What uſe would he have made of this wiſdom, had he written as a mere amanuenſis? What were the advantages of his learning, and profound ſcience, if his tongue or hand alone had been employed in the delivery of divine truths, and not his underſtanding? This expreſſion ſeems to me to accord with what I have ſaid of the inſpiration of doctrines. Beſides their own ſtock of knowledge and wiſdom, acquired by natural means, the apoſtles had received the neceſſary illumination and inſtruction, either by the firſt or fourth kind of inſpiration, and, when they taught, were left to this wiſdom as a true and competent guide, by means of which they more amply unfolded the revealed inſtruction, aſſimilated in their minds with their own knowledge, appplied it to particular caſes, and placed it in the proper order and connection. The other apoſtles received their inſtructions immediately from Chriſt; and where this inſtruction was inſufficient, the want was ſupplied by occaſional revelation. It does not appear probable to me, that they were immediately indebted to the gift of the Holy Ghoſt, which they received at the feaſt of Pentecoſt, for the goſpel truths which they preached. Neceſſary as this extraordinary gift was in every point of view, that they might bear teſtimony of Jeſus with ſucceſs, I cannot perſuade myſelf, that it conſiſted in a conſtant and uninterrupted inſpiration of thoſe truths. This gift could not render particular inſpirations unneceſſary, for they themſelves communicated the Holy Ghoſt to others, who did not thereby become inſpired, and were far from being exalted to that high degree of illumination which the apoſtles attained. Finally, Jeſus himſelf declares, that the office of the Holy Ghoſt was to recal to their minds the remembrance of what he had ſaid to them, ſome parts of which they had not comprehended, and others forgotten, thus to lead them in the way of truth, and render the inſtructions they had received from him uſeful and profitable. —But how does this affect the apoſtle Paul? He was not fortunate enough to be taught by Jeſus during his abode upon earth, and conſequently muſt have received his knowledge by inſpiration, as he at different times expreſsly declares, for inſtance, 1 Cor. ii. No doubt he had learnt many things from the other apoſtles, with whom he

he had actually converſed concerning the truth, as he aſſerts Gal. ii. 2. As, in the remarkable inſtance firſt mentioned, he declares himſelf to have been immediately inſtructed by Jeſus, it thence appears probable, that all he had learnt was not acquired in this manner. How the ſum of the chriſtian doctrines was revealed to the apoſtle Paul is not eaſy to determine: were I permitted a conjecture, I would ſay, that the grand outline of chriſtianity was imparted to him in a revelation or viſion, in which Chriſt, his office, ſufferings, and death were repreſented to him as the antitypes of the high prieſt and ſacrifices of the Levitical law. With this he might have been excited to a diligent compariſon of the types with their antitypes. This will explain to us why he employs this compariſon more frequently than any other apoſtle, if he be not the only one who does it, explains chriſtianity from the religious worſhip of the Jews, and repreſents it as the antitype or fulfilling of the Moſaical diſpenſation.

Secondly; The apoſtles do not pretend to an immediate inſpiration of all their words, when they taught orally or by writing. Paul frequently ſpeaks with a kind of doubtfulneſs, and inconcluſive circumſpection, when he determines caſes of conſcience, and gives precepts to certain perſons, and under certain circumſtances. And not without reaſon. For when he unfolds the grand principles and precepts of chriſtianity revealed to him, and applies them to particular caſes, his certainty, that a doctrine or precept is a doctrine or commandment of the Lord, muſt be leſs in proportion as it is more remote from thoſe firſt principles, and connected with them by a greater number of intermediate ideas. Hence it was, that ſometimes he would not venture to give what he ſays for any thing more than his own private opinion, and, which appears to me very important, makes a diſtinction between it and the commandments of God. Not I, ſays he, but the Lord: I and not the Lord. 1 Cor. vii. 10. 12. Were he merely a writer who ſet down what another thought, ſuch expreſſions, allege what you will to render them conſiſtent with immediate inſpiration, would be moſt improper and abſurd.

Thirdly; The occaſionally interſperſing the precepts of chriſtianity with perſonal and domeſtic circumſtances, not immediately connected with them, ſeems to prove, that on theſe occaſions the pens of the apoſtles were not guided by the ſpirit of God. Such are the ſalutations, profeſſions of friendſhip, advice to Timothy reſpecting diet, the mentioning of a cloak and books, and the whole, though excellent, Epiſtle to Philemon. It may be ſaid, that the mentioning of thoſe things might have been on many accounts uſeful, even ſuppoſing them to have been inſpired. Not to obſerve, that the practical inferences drawn from ſuch paſſages in oppoſition to certain fooliſh ſectaries are in general very ſuperfluous and frequently forced (as for inſtance, when it is attempted to prove the utility of books, and the propriety of ſtudy, againſt thoſe much to be pitied perſons who hold them as uſeleſs and ſinful, from the command of Paul to Timothy, to bring with him the books he had left at Troas) the ſame would follow, were it admitted, that the apoſtle delivered only his own private opinion. Who could

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be ſuppoſed to know better than Paul what was permitted to a chriſtian? Who would deſire to be more devout and religious than that great apoſtle?

Fourthly; Inſtead of the whole of Chriſt's diſcourſes, the evangeliſts frequently give us only ſhort extracts of them, containing, perhaps, what they had particularly remarked, and what they remembered with ſufficient clearneſs and certainty. Theſe ſhort fragments often occaſion ſome obſcurity, as in the ſermon on the mount, of which probably a very ſmall part indeed is preſerved to us. If what we have of it be written faithfully and accurately from memory, we ought the leſs to regret its ſhortneſs and obſcurity, which, under ſuch circumſtances, was not to be avoided, as it is a proof of the care and fidelity of the writers, who preferred giving little with certainty to much with doubt, and fragments, though with ſome obſcurity, to a connected whole, made by ſupplying the defects of their memory from their own imagination. Totally different would the caſe be, were this diſcourſe of Jeſus written not from memory, but from immediate inſpiration. Had the original been dictated, we might reaſonably preſume, that we ſhould have found it as complete and connected as could be required; and even had it been neceſſary, that this intereſting diſcourſe ſhould have been abridged, it would have coſt the ſpirit of truth, that inſpired the writers, no greater miracle to have made it more intelligible, by a leſs degree of brevity and inaccuracy. The writers of the life of Jeſus have done all that could be required of men left to their own veracity, judgment and memory, though the latter were exalted in the extraordinary circumſtances in which they were placed. But were the treaſures of Omniſcience laid open to them, and the diſcourſe of Jeſus deſerved to have been handed down to poſterity in a more perfect, connected, and perſpicuous manner, if they have made no uſe of thoſe treaſures, or uſed them ſo little to our ſatisfaction, this forbearance appears to us ſo much the more ſtrange and incomprehenſible, as it would render that ſupernatural communication of a more ample account in a great meaſure uſeleſs and ſuperfluous. If we ſuppoſe any one, after having heard a remarkable but very long diſcourſe, to ſet down the moſt important parts that he remembered, and others, who were alſo preſent, to do the ſame, their performances would exactly reſemble the extracts of certain diſcourſes of Jeſus given us by the evangeliſts. Two of them would frequently give us the ſame things, in the very ſame words, but one would often want what would be found in the other, and one would be on the whole leſs intelligible than the other, from the omiſſion of particular circumſtances, though on the other hand it might be in ſome caſes more clear. Thus they would ſerve to illuſtrate each other, and the reader would find a compenſation for the perplexities remaining, in the aſſurance he would thence receive, that the writers had not copied one another, and that they had not forged or falſified the whole in concert. Now on the ſuppoſition, that the diſcourſe was at the ſame time copied *verbatim*, and that theſe two abridgers ſaw this copy, rectifying and filling up the deficiencies of their abſtracts by it, if they did not completely tranſcribe it, we

ſhould

ſhould find no conſiderable variation between the two, ſo as to occaſion a perplexity or apparent contradiction. If, then, we find ſuch, we muſt preſume, either that they had no ſuch copy, or that they did not make uſe of it.

Still there is a particular difficulty with reſpect to ſuch ſpeeches of Jeſus as were ſpoken only once, on occaſion of ſome feſtival, which were not ſufficiently copious to require an abridgment, and were too important for his diſciples to permit themſelves purpoſely to make any alteration in them. Such are the words of Jeſus at the inſtitution of the holy ſupper. Four times they are related, and always with ſome little variation. Matthew leaves out the addition to *this is my body, which is given or broken for you,* and alſo the words that are in one inſtance twice repeated, *this do in remembrance of me:* but he ſays, *this is my blood of the New Teſtament, which is ſhed for many* (not, *for you*) *for the remiſſion of ſins.* Mark is ſtill ſhorter; he leaves out the words, *drink all of you thereof,* and alſo, *for the remiſſion of ſins.* Luke has the addition, *which is given for you; this do in remembrance of me,* and further, *this cup is the New Teſtament in my blood, which is ſhed for you.* Paul relates theſe words moſt fully. I ſhall firſt notice the alteration that he makes in attributing to Jeſus the words, *which is broken for you,* inſtead of, *which is given for you.* He ſays twice, *in remembrance of me,* which none of the others does, and the laſt time with the important addition, *as often as ye drink:* finally he ſays, *this cup is the New Teſtament in my blood,* leaving out, *that is ſhed for many,* according to Matthew, and *for you,* according to Luke, *for the remiſſion of ſins.* Theſe variations, additions, and omiſſions, it is true, do not alter the ſenſe of the words and inſtitution of Jeſus in any material point: ſtill they are actual alterations of one and the ſame ſpeech, which, as it was only once ſpoken, could not poſſibly have been ſpoken with all theſe variations. We can only ſuppoſe one of the evangeliſts, therefore, to have repeated the words of our Redeemer with accuracy, and the others to have made ſome alteration, omiſſion, or addition: or probably not one of them has cited them exactly. If either have done it, however, my opinion would be in favour of St. Paul, as he ſeems to lay claim to a particular revelation.

On the ſuppoſition, that the evangeliſts wrote theſe words of Jeſus not from memory, and according to their general purport, but from a particular inſpiration, this varying relation of a ſpeech, which, as has been obſerved, was not ſo prolix as to require an intentional abbreviation, and was ſufficiently important to be given at full length, is totally inexplicable. In the firſt place, the ſpirit of inſpiration was the ſpirit of wiſdom and truth. Truth requires, that the words attributed to any one be related exactly as they were ſpoken, and not otherwiſe, particularly when it is ſo ſaid. *Thus ſaid he,* will not allow of any abridgment, or an expreſſion of the ſpeaker's meaning in terms different from his own. Unqueſtionably the ſpirit of inſpiration knew preciſely the words which Jeſus ſpoke, and the order in which they were ſpoken: what then could prevent the evangeliſts from writing them exactly as they were uttered, if they were dictated to them

them by that ſpirit? It muſt be admitted, that it was impoſſible for them to write otherwiſe than as it was dictated to them: and why ſhould the ſame ſpeech be dictated by the ſame ſpirit of truth differently to each? To ſay, that the evangeliſts were in this inſtance inſpired by the ſpirit of truth, would be the ſame thing as if they had copied the ſpeech from the moſt exact protocol; and how ſhould there be protocols of the ſame ſpeech deſignedly differing from each other? But their variations from each other, and conſequently from an accurate protocol, evidently prove, that they did not copy from any one. Where then would have been the uſe of ſuch inſpiration, or what would it have availed them to have had an authentic copy before their eyes, if they were unable, or unwilling, to write after them, or to employ them in ſupplying the deficiencies, or correcting the errors of their memory? Is it not obvious, that the ſuppoſition of an immediate inſpiration, in caſes where they have notwithſtanding written as though they poſſeſſed it not, annihilates the only valid juſtification of their want of agreement, additions, or omiſſions, and even deſtroys that credit which we might give their narration, if they wrote from memory? The credibility of their teſtimony would gain nothing by this ſuppoſition, which it would not from the circumſtance of their variations, on the preſumption, that they were not immediately inſpired. Theſe variations prove their not having written in concert, the greateſt natural confidence in the truth of things of which they had no doubt, and the conſequent neglect of all prudential and cautious obſervance of things of little moment to give an air of truth to their ſtory. On the ſcheme of immediate inſpiration, I do not ſee how theſe could be brought in ſupport of their credibility: for this ſeems to me to be the ſame as if they wrote from one ſource, and after the ſame original; and all their claim to our belief reſts on the truth and preciſion of the document from which they drew their teſtimony. So far as what they ſay is not from their own memory, but taken from a certain document, or to be conſidered as ſuch, the arguments for or againſt their veracity, derived from their particular agreement or variation, are of no weight. When I apply this to the writers of the life of Jeſus, it appears to me, that the ſuppoſition of an immediate inſpiration in things which they might have related from their own teſtimony, having ſeen and heard them, takes from them what conſtitutes the proper credibility of a witneſs, which we term *fidem humanam*, and leaves no other ground for our believing them, than our opinion of an immediate inſpiration, to which they are indebted for all they ſay: conſequently all the arguments to be drawn from the compariſon of various teſtimonies in ſupport of their veracity fall to the ground. Thus the circumſtance, that they themſelves heard or ſaw what they relate, or carefully recite them after eye or ear-witneſſes, a circumſtance on which they appear to have laid great ſtreſs, tends not in the leaſt to the conviction of their readers: for, if we ſuppoſe an immediate inſpiration to have taken place, it was unneceſſary for them to have had any previous knowledge of what was dictated to them, as this one ſource of truth rendered every other ſuperfluous. Still, if we would convince an unbeliever of the truth of the

goſpel hiſtory, we muſt begin with proving the validity, care, certainty and veracity of its teſtimony, from an examination and compariſon of its accounts, as if we ſpoke of mere human witneſſes to tranſactions, and not as copyiſts of what was laid before them. It may be ſaid, that it is allowable to argue from falſe grounds, to gain opponents who will not admit the truth: but what would this avail, when, after having convinced our antagoniſt by falſe poſitions, we again reject thoſe poſitions, deny the human credibility of the goſpel hiſtorians, and, recurring to immediate inſpiration, require them to believe their teſtimony, on grounds not only different from the former, but which exclude them? Would not thoſe whom we ſhould endeavour to lead to conviction by ſuch oppoſite ways be altogether confounded? And might they not ſay: you have at length convinced me, that all the credibility of the evangeliſts, who have delivered to the world an account of Jeſus and his doctrines with ſuch great care, circumſpection, and love of truth, ariſes from a circumſtance to which no witneſs or hiſtorian has any pretenſions. I might readily grant, that their wonderful agreement in the main points of their narration, and the many other proofs of their authenticity, that impreſs themſelves on the mind of an unprejudiced, feeling, and attentive reader, indicate the finger of God, and the direction of providence, by which they were ſelected as the moſt capable and fit for the purpoſe, endowed with ſuch pre-eminent gifts, adequate knowledge, and ardent zeal for the truth, and placed in ſuch advantageous circumſtances, that its great ends muſt be attained by their teſtimony. This ſeems to me all that a reaſonable man, who thinks juſtly, can require, to ſatisfy himſelf of their credibility: it is alſo all that we can aſcribe to them, if we would allow them any credit as actual witneſſes. If you hold them out to me in this light, I examine them, and find them worthy of being believed. But if, not content with this, you ſeek farther to confirm their teſtimony, and for this well-meant purpoſe aſcribe to them an immediate inſpiration, you will deſtroy all the favourable impreſſions, that had been made on my mind, of their truth, capability, and the like. Their qualities and character as witneſſes become altogether inſignificant to me, when I conſider them in the light of mere copyiſts, and you make me ſuſpect the means by which you led me to conviction. Do you not perceive, that, endeavouring to augment the credibility of their teſtimony by this aſſumption, you in fact leſſen it? You thus found all the truth of their narration on the ſingle principle, that they were inſpired in the manner beforementioned. Admitting, that they ſaid this of themſelves as clearly and deciſively as you aſſert it of them, no reaſoning on their character, capability, or the like, as we could judge of them from what they wrote (for the character of a mere copyiſt cannot be diſcovered from what he writes) could aſſure us that they ſpoke the truth, when they gave themſelves out for inſpired, but only an immediate infallible perception of it: and thus, it ſeems, we ourſelves muſt be inſpired, to be certain that they were ſo.

Fifthly; Were the apoſtles under the influence of an immediate inſpiration, whenever the truths of chriſtianity preſented themſelves to their minds, or they delivered them to

others

others, either by ſpeech or writing, it ſeems to me, that they could not have had a lively and effectual knowledge of them, and thus could not have communicated them to others in the moſt forcible and efficacious manner. The notions which they received and imparted were not their own, or the production of their mental faculties, but infuſed into them: hence all the conſequences deduced from thoſe notions, and founded on them alone, muſt be as foreign to the apoſtles, and as little to be aſcribed to them, as the notions themſelves. Thus their religious opinions were no more their own, than the opinions of him who dictates a letter, are thoſe of him who writes it. It would avail little to ſay, that the apoſtles were left to themſelves when they meditated on the doctrines of chriſtianity, but not when they delivered them to others. For, let me aſk, was it not the deſign of their meditation on thoſe truths, that they ſhould be ſaved, and of their delivery of them, that others ſhould be ſo? If, then, their own reflection, excluſive of all immediate inſpiration, were ſufficient to effect their own ſalvation (and if it were inſufficient, none of their chriſtian notions, virtues, and works, or any thing moral in them, was proper to themſelves) had they been left to themſelves in the delivery of them, as they would have expreſſed their thoughts in the manner in which they were preſent to their minds, it would have been ſufficient to the ſalvation of others. All that was neceſſary for them, as teachers, to make others wiſe to ſalvation, was the gift of expreſſing what they thought with order, aptneſs, and perſpicuity: which gift was imparted to them once for all, and appertained to that wiſdom with which they were endued. Beſides, a man eaſily expreſſes with perſpicuity what he clearly conceives.

Let us alſo farther conſider, that the apoſtolical writings do not contain doctrines merely ſpeculative, and dry theories, but practical truths, which the ſacred writers themſelves felt, and which were by them made fruitful: they ſpoke from the fulneſs of a heart moved and ſanctified by the doctrines they delivered. All they preach is practical, and every where ſhews, that their notions were conformable to the ſpirit of chriſtianity. That which thus comes from the heart muſt go to the heart, and their readers and hearers muſt have caught that noble fire, which, iſſuing from their breaſts animated their words: but this would not happen, unleſs they ſuppoſed, that the perceptions, opinions, and affections expreſſed by the apoſtles were their own, originating from their own frame of mind and diſpoſition, and flowing from their own hearts. This impreſſion, however, would be at once enfeebled or annihilated, were it believed, or merely conjectured, that they were not left to their own hearts, but wrote under the guidance of ſome foreign influence. A reader of the apoſtolical writings, who believes the immediate inſpiration of every word and thought, and, as will naturally be the caſe, does not forget this as he reads, will think, perhaps, ſomewhat in the following manner of the paſſage where Paul praiſes charity, 1 Cor. xiii. How excellent thoſe thoughts! How exalted, how affecting, the apoſtle's deſcription of charity! How forcibly is its ſupereminence expreſſed! How muſt the heart of him who ſo valued it, and painted

it in ſo maſterly a manner, have been warmed and penetrated by it! But what proof have I, that the apoſtle actually felt what flowed from his pen, and that he did not praiſe virtue with the lips of Balaam? The opinions, ideas, and words, which I read, are not his, but he was inſpired ſo to write, even though he thought differently. I learn from this only what he, and what I, ought to think and conceive: but his words by no means convince me, that his heart was actually ſo charitable, and his character actually ſo virtuous, or even that it is poſſible for man to attain ſuch exalted notions. Probably, when he wrote this, he was only as ſounding braſs, or as a tinkling cymbal.

On the ſuppoſition, that every word is immediately inſpired, I know not what could be ſaid to countervail theſe reflections, and to give the doctrines of the apoſtle due weight and influence. Were we to ſay, the ſpirit of inſpiration ſo adapted itſelf to the actual ideas and opinions of the ſacred writer, as to inſpire him with no others but thoſe which he really felt and thought, only perhaps giving them the moſt ſuitable expreſſions; it might be anſwered: where then was the neceſſity of his being inſpired, to ſay what he might have ſaid without inſpiration, and which, if his feelings and notions were true and juſt, he muſt have expreſſed truly in the ſimple, artleſs language of the heart? This inſpiration which you ſuppoſe, was unneceſſary, of no uſe, and gives the whole a diſadvantageous aſpect. It was uſeleſs, ſince to be convinced that what he recommends is true, godly, and chriſtian, I need only perceive its perfect conſonance to the doctrines and precepts of Chriſt, without its being neceſſary to ſuppoſe that it was divinely inſpired for my farther conviction. To be aſſured, however, that it is poſſible for me to attain ſuch exalted notions, and to be inſtigated to endeavour after ſuch virtue, it is of much importance to me to know how much of this virtue Paul himſelf poſſeſſed; of which nothing can ſo well and fully convince me as his own expreſſions.

If it be admitted, then, that the diſcourſes of the apoſtles have gained in perſpicuity, preciſion, and certainty, by an immediate inſpiration throughout, they muſt on the other hand have loſt with reſpect to their power of moving and edifying. The loſs is certain; but that they have gained may be diſputed. For the meſſengers of God have ever ſpoken a language exhibiting all thoſe faults and unavoidable imperfections which human language cannot be without, if it be intelligible, inſtructive, and efficient. It is ſaid, that a greater degree of certainty ariſes from the belief, that every word comes immediately from God. But might we not have a ſufficient degree of certainty, without ſuppoſing an immediate inſpiration of every thing they wrote? If we conceive, that the ſacred writers had the requiſite ſincerity and abilities to bear teſtimony of Jeſus and his doctrines, and that as often as they lay claim to a divine revelation, or inſtruction from Chriſt, they actually received this revelation or inſtruction, and have delivered it faithfully and accurately, I know not what more a reaſonable man can require to edify by their writings, and to be convinced, that he actually reads divine truths. Should any doubts remain of their having properly applied the divine revelations and inſtructions,

inſtructions, with which they were honoured, and of their having deduced juſt conſequences from them, unmixed with any falſe notions, let us only do what they themſelves require of their readers and hearers: let us prove their writings by the teſt of the divine truths which they have delivered. Let us examine whether their conceptions of the doctrines of chriſtianity agree with the word of the Lord, and with the revelations to which they appeal. Let us inquire whether they adhere to the divine truth in their explanations and developement of it, and whether their conſequences be really valid, and deducible from it. If we find this, and no one has hitherto proved the contrary, we ſhould be unreaſonable and unjuſt not to be ſatisfied with the degree and kind of divine inſpiration here admitted. Let us duly conſider, that, were the ſacred writers perfectly ſincere and faithful in what they deliver, their writings muſt have a ſufficient degree of credibility for every man, ſince they were placed by God in circumſtances ſo extraordinarily favourable, that they could and muſt teach the truths of the goſpel with ſufficient perfection. Thus their integrity, and love of truth, are the grand points on which the credit to be given to their doctrines depends. Were they ſincere, we may be certain, without ſuppoſing all their words to have been immediately inſpired, that their writings diſplay the true ſpirit of chriſtianity and revelation. If, however, they were wanting in love of truth and integrity, or we be not fully aſſured they were not, our belief of an immediate inſpiration cannot ſatisfy or confirm us: for this belief muſt be founded on their own aſſertion and teſtimony, which, if we doubt their truth and ſincerity, can be of no weight. Hence we ſee how important and indiſpenſable integrity and a love of truth, which, with the neceſſary abilities, conſtitute what we term *fidem humanam*, are for a ſacred writer, whether of hiſtory, doctrines, or precepts, if he would actually obtain our truſt and confidence.

PROP. CXXVII. p. 391.

On Miracles.

Miracles conſtitute an important object of inquiry, both to the defenders and opponents of the chriſtian revelation. In modern times, more eſpecially, their nature and demonſtrability have been carefully inveſtigated, and endeavours have been uſed to ſupport them againſt the objections of ſceptics and unbelievers. Much, however, as has been written on both ſides of the queſtion, what our author has advanced in the CXXVIIth propoſition, in explanation and defence of miracles, ſeems to me perfectly juſt, and in ſome meaſure new. His ideas on the ſubject he has given, as uſual, with brevity. I am perſuaded, therefore, that a more ample developement of them will not be without uſe.

In the firſt place it may be aſked: are miracles ſo far ſupernatural as to be actually repugnant to the nature of things, and true and proper exceptions to the general plan of

of God, according to which he governs the world, and effects his purpoſes in it; or are they ſupernatural only ſo far as, from our knowledge and views of the nature of things, their powers, and laws of action, they appear to us to be deviations from the general ſcheme of providence, and contradictory to nature? A thorough examination of this queſtion will, I believe, throw great light on the ſubject of miracles.

The firſt notion of a miracle that ſtrikes our minds is, that it is an extraordinary and unuſual occurrence, deviating from general experience. This we may admit, at leaſt as a definition of the term. But if we bring miracles in proof of a divine miſſion, or a more immediate revelation, the queſtion is, whether miracles, conſidered as merely extraordinary and unuſual occurrences, be ſufficient to ſtamp credit on a meſſenger aſſerted to be from God, or it be neceſſary, to the full conviction of thoſe to whom he is ſent, that they diſcover in his works a power far beyond that of nature. They who confine the idea of a miracle merely to the unuſual and extraordinary, to require nothing more to the demonſtrability of miracles, maintain that the circumſtance of a very unuſual occurrence, brought as a proof of a divine miſſion, effected at the nod and command of the divine meſſenger, exactly at the time, and under ſuch circumſtances that it cannot be attributed to the apparently producing cauſe, is a ſufficient demonſtration, that the Lord of nature declares himſelf thereby. This notion of miracles ſets aſide the objection made by many to the immediate interpoſition of God, that, if they be not contradictions to the general ſcheme of providence, they muſt be conſidered as alterations and improvements in it. And theſe would more eaſily reconcile themſelves to miracles, were they conſidered merely as extraordinary effects, produced in ways hidden from us though natural, and by inſcrutable means, but ſo wiſely ordered by providence, as to confirm our belief in new inſtructions from God, in an unequivocal manner. Bonnet, in his philoſophical inquiry into the arguments for chriſtianity, has lately conſidered miracles in this light. According to him, they are occurrences which were included in the eſtabliſhed principles of nature, or founded on the active powers of the world, but ſo conſtituted as in appearance not to ariſe from the uſual order of things. This is, in his opinion, clear and evident, when they are not ſo related to the apparent means employed to produce them, that we may deem thoſe means their real effective cauſes. If ſight be given to one born blind, by touching his eyes, and commanding him to ſee; if a dead body, that has lain ſome days in the grave, and has already begun to corrupt, be reſtored to life, after a prayer to God, and the words, I ſay unto thee, ariſe: a miracle performed under ſuch circumſtances is a deciſive declaration of the Lord of nature in behalf of him who performs it. I cannot perceive, that this explanation leſſens the demonſtrability of miracles. So far as the effect is no way connected with the powers and means employed in producing it, or proportionate to them, and preſuppoſes a ſecret artful capacity in the ſcheme of the world, which can be employed or perceived by no one but the Creator and Ruler of the whole, the miracle is a proof of the hand of God, and particularly a valid credential for the performer,

performer, when he expreſsly announces himſelf as a meſſenger from God, performs the miracle itſelf in confirmation of the truth of his embaſſy and doctrines, and calls upon God in prayer to grant him the neceſſary power.

What Hartley advances as conjectural agrees, for the moſt part, with this notion of miracles. Amongſt the inſtrumental powers by which miracles may be produced he reckons ſuperior ſpirits, and influences from above, conſidering the whole ſpiritual world in ſuch a connection, that one part is an inſtrument to the perfection of the reſt, and that higher beings employ their greater and more extenſive faculties, to the divine purpoſes of promoting the happineſs of the lower orders. This view of the ſubject ſeems perfectly conſonant to the notions held out to us in the ſcriptures. According to it, miracles are but relatively ſupernatural, and not true and proper exceptions to the general ſcheme of God, according to which he governs the world, and effects his purpoſes in it. Thus it will be unneceſſary for us to conſider them as *immediate* acts of that omnipotence, to which God, if we may be permitted to ſpeak of him in ſuch human terms, muſt neceſſarily have recourſe, were there, in his grand ſcheme of providence and government of the world, no natural ſecondary cauſes, that could be employed to effect the purpoſes intended by thoſe miracles. We may ſay, then, with Bonnet, that God has pre-ordained every thing by one ſole act of his will, that there is only one ſingle miracle, which comprizes the immeaſurable ſeries of things that we term uſual and ordinary, and the much ſmaller number of thoſe that we ſtyle extraordinary, and that this incomprehenſible miracle is the creation.

Which ever of the given explanations of miracles, that exclude from the idea of them the immediate interpoſition of God, be admitted, it appears to me, that the ground for the demonſtrability of miracles, conſidered as immediate effects of God's omnipotence, uſually derived from the moral attributes of God, loſes nothing of its force. God, ſome will ſay, would, in a great meaſure, renounce the privilege of being the moral govenor of the world, and render it impoſſible for him ever to give mankind a more immediate inſtruction, or an extraordinary illumination of the mind, if he permitted, in behalf of an impoſtor, and for the confirmation of lies, effects ſo unuſual, and contrary to the common courſe of things, that the human underſtanding could not aſcribe them to their proximate cauſes, nor to any means it could diſcover, but muſt refer them to an inviſible power and inſcrutable wiſdom. In that caſe, the ſole criterion* by

* When I ſpeak of miracles as the only certain criterion of an immediate revelation from God, I conſider them as including prophecies. For that a man ſhould truly and clearly foretel future events, dependent on unknown circumſtances, and deducible from the exiſting ſources of information by no human ſcience or cunning, is not leſs a miracle, than any other occurrence that departs from the ordinary courſe of nature. The Jewiſh Rabbies diſtinguiſh the promulgation of the law, on which they ground the divine authority of their revelation, from miracles, which, in their opinion, are no ſufficient proofs of a miſſion from God. But this diſtinction is frivolous and unfounded. The public delivery of their law proves the divine authority of Moſes and his mandates, only if conſidered as a miracle. That this miracle happened publicly was an accidental circumſtance,

by which men could diſtinguiſh the divine nature of ſuch appearances would be ſuſpicious, nay totally inconcluſive. We can as little determine, from our own experience, and the teſtimony of our ſenſes, whether miracles adduced in ſupport of a divine miſſion be, beſides what is above-mentioned, the immediate act of God, or not, as we can ſolve the queſtion, whether there be any truly natural powers; for inſtance, whether gravitation be properly a power of God, or a power of nature, or whether the occurrences which we term natural be not on every occaſion immediate effects of God's power. Experience gives us no information whether God act mediately, or immediately, either in miraculous or ordinary caſes. All that experience and obſervation tells us is, whether the occurrence which we ſee be ſimilar to other experiences and analogies or not; and all our reaſoning, which is never certain or ſecure, in judging of the powers of nature, when it overſteps the bounds of experience and obſervation, is equally unable to inform us what thoſe powers are capable of performing, in new combinations, and by ſecret properties. Thus it appears, we muſt adhere to theſe indeterminate characteriſtics of miracles, that they are unuſual and extraordinary; that the phyſical cauſes and means in the performer's power, and which he employs, are not adequate to the effect; and that they are diſplayed expreſsly in confirmation of a divine miſſion, and to enforce ſuch doctrines and precepts as are worthy of God, according to our rational ideas of him and his attributes; conſiſtent with the relation in which he ſtands to his intelligent creatures, as their Creator, Governor, and Father; adequate to the wants, wiſhes, and expectations of thoſe creatures, and indiſpenſable to their attaining the ſummit of their happineſs. Still more certain will theſe diſtinguiſhing marks of the divine origin of a ſyſtem be, if it be demonſtrable, that the precepts given to men in a miraculous manner are not only of the utmoſt importance to their happineſs and virtue, but ſuch as without this inſtruction they could never have diſcovered, or at leaſt not ſo ſpeedily, univerſally, and with ſufficient certainty and perfection. As ſuch a divine miracle ſhould be ſtrikingly diſtinguiſhable from illuſions, and tricks of legerdemain, I would conſider it as a neceſſary characteriſtic, in this point of view, that the miracle be in itſelf important, particularly as to its good effects, and alſo firm and laſting. The juggler can perform things by dexterity and ſlight of hand, which will aſtoniſh beholders, eſpecially of the ignorant multitude. Even the attentive obſerver, however well acquainted with the works of nature, is not always able to diſcover the ſecret. But

circumſtance, by no means altering or deſtroying its extraordinary and miraculous nature. If it were not a true miracle, it was no more than a mere human performance, and probably a well-intended impoſture of the law-giver, who was deſirous of giving his code the ſtamp of divine authority. With equal reaſon, it ſeems to me, might we chriſtians ſay, that we ground not the divinity of our religion on miracles, but on the reſurrection of Jeſus; as this, if ſufficiently proved, renders the allegation of all other miracles in defence of chriſtianity in a certain degree ſuperfluous. But to this it may be objected: if the reſurrection be not a miracle, it proves nothing. The ſame anſwer may be made to the Jews: what the promulgation of their law proves, it muſt prove as a miracle; and if it be no miracle, it proves nothing.

theſe performances of art produce only an empty ſpectacle, and an object of ſurpriſe, never any uſeful or durable effect; whence we may ſuſpect them of deceit, though we cannot detect the artifice. The miracles which the ſcriptures record of Jeſus and his apoſtles are not liable to this diſpoſition, as they were directed to good ends, and produced laſting effects. When a blind man was reſtored to ſight by ſuch a miracle, it was not for a moment, but for his whole life. I make no objection to thoſe who, amongſt the characteriſtics of a divine miracle, reckon a certain external ſeemlineſs, *decorum Dei*, whence it muſt have ſome worth, dignity, and importance, diſtinguiſhing it from the puerile and ſottiſh miracles, feigned by the legends of ſuperſtition in the dark ages. The miracles related in the ſcriptures have all this value and decorum, and, a very few excepted, are not expoſed to the ſmalleſt ſhadow of objection on this head. Finally, it ſeems, that miracles ſhould be employed very ſeldom, and only when indiſpenſably neceſſary to the attainment of the end propoſed. By frequent repetition, particularly as they were durable, they would loſe their aim, and in a great meaſure, if not wholly, fail of producing conviction. They ſhould prove to us, that the Lord of nature ſpeaks: but this they would do chiefly from being extraordinary and unuſual occurrences, ceaſing to do it if they were frequent, and the miraculous œconomy continual. If we ſuppoſe the frequently repeated miracles to happen in a certain order diſcoverable by the human underſtanding, we muſt compare them with ſuch natural phænomena as we cannot yet explain from their analogy and agreement with our other experiences and obſervations: but we ſhould by no means be juſtified in relinquiſhing the hope, that we ſhould ſometime or other be able to do this, or that they might be reckoned in the courſe of nature by future inquirers, after more experiments and obſervations. If, however, they happened frequently, but ſo irregularly as to be reducible to no order, they would probably not enlighten, but perplex our underſtanding. We ſhould then be unable to determine what was natural, and ſupernatural, or unnatural: for our judgment in this reſpect is ultimately founded on experience. We can neither diſcover *a priori* the actions of bodies, nor the laws by which they act. Were there not an univerſal uninterrupted uniformity in theſe actions and their laws, but ſometimes one action, at others its oppoſite, took place under the ſame circumſtances; and if, having deduced a certain law of action from a number of caſes, we found this law did not apply to many caſes perfectly reſembling them; our preſumption of a conſequence ſimilar to thoſe of our former obſervations would be highly uncertain. Whatever were our foreſight, we muſt ever remain doubtful, whether what we had conceived to be a law of nature actually took place, or whether it were a law of nature, or not. Let us ſuppoſe, that the menace affixed to ſome unlawful marriages in the Moſaic diſpenſation, *they ſhall die without children*, is ſo to be underſtood, that the fruitfulneſs of unlawful marriages would be prevented by a conſtant miracle; in this caſe we could not diſtinguiſh the natural from the miraculous, and ſhould be led to conjecture, that, probably, the cauſe of this conſtant unfruitfulneſs depended on phyſical principles unknown to us.

Were the miraculous cures which the people attribute to ſympathy, and ſo confidently expect in fevers, wounds, and other maladies, placed beyond a doubt, and fully proved to a natural philoſopher by inconteſtible experience, his former theory of the powers, laws, and actions of nature, muſt aſſuredly appear to him ſuſpicious, imperfect, and defective. He would unqueſtionably enlarge his limited ideas of them, and confeſs, that many things were poſſible in nature, which he hitherto had not ſuppoſed, or had deemed abſurd and impoſſible. Numerous and continued miracles would place us all in a ſimilar ſituation: not only would our underſtanding be perplexed, and our knowledge rendered uncertain thereby, but they would have a moſt pernicious influence on our conduct and activity. Deprived of analogy, the guide of our lives, we ſhould have no preponderating probability, that like effects would follow like labours and exertions; whence we ſhould have no ground or rule of conduct, and be deterred from all action, or raſhly yield to every fantaſtic hope, or romantic ſcheme. The extreme rarity of miracles ſeems to me proper, beneficial, and neceſſary, for another reaſon. They ſhould be nothing but the ſeal which God ſets on his inſtructions to mankind, as the ſtamp of their authenticity. Did they abound, they would too ſtrongly excite the curioſity of the many, draw their chief attention, which ſhould be occupied in examining and meditating on the truth to be believed, too much to the ſigns, and produce an inordinate deſire of miracles, inimical to the reception of truth. Beſides, men would leave the proper demonſtrations of truth out of the queſtion, and not ſeek to diſcover its connection, but, accuſtomed to theſe extraneous proofs, would require a particular miracle for every precept. How much true earneſt meditation on religion would be hindered, and ſenſuality and ſuperſtition promoted thereby, muſt be obvious to every one. Were miracles ſo multiplied, revealed religion would probably become a kind of diplomatic ſtudy to the greater part of mankind, and the ſubſtance of it would remain uninveſtigated and unapplied. For as the diplomatiſt chiefly employs himſelf in examining marks, ſeals, and the like, thinking chriſtians would give themſelves up too much to the examination of the ſeals of their religion, at the expence of more uſeful and important occupations. I would compare miracles, therefore, with Herculean remedies, as they are called, in medicine, which properly timed, and in caſes of extreme neceſſity, produce the moſt ſalutary effects, but uſed frequently, and without occaſion, are highly dangerous and deſtructive.

If what has been advanced be juſt, the objection to religious miracles (and we find no reaſonable grounds for the admiſſion of any others) that they are contradictory to the laws of nature, and preſume an alteration in the decrees of God, is wholly inſignificant and unfounded. But it ſeems to me, that this objection may be removed, even if the preceding explanation be not admitted.

To another objection, which the celebrated Hume has made againſt miracles, or rather againſt their adequacy to eſtabliſh the authority of any thing announced, our author, in my opinion, has given an anſwer the moſt valid and weighty hitherto adduced

adduced againſt his manifeſt ſophiſms. Hume maintains, that, if miracles be contradictory to the general courſe of things, confirmed to us as ſteadfaſt and unalterable by the univerſal experience of all mankind, and all our notions and concluſions reſpecting actual occurrences muſt be grounded on this univerſal experience, no human teſtimony can be ſufficient to convince us, that this general courſe of nature has been interrupted in any particular inſtance. For human accounts and teſtimonies are not confirmed as true and certain by any ſuch conſtant experience: on the contrary, experience teaches us, that men, prone to belief in the marvellous, particularly in matters of religion, lie and deceive themſelves. He admits only a ſingle inſtance in which a miracle can be ſufficiently confirmed. "No teſtimony is ſufficient to eſtabliſh a miracle, unleſs the teſtimony be of ſuch a kind, that its falſehood would be more miraculous, than the fact, which it endeavours to eſtabliſh: and even in that caſe, there is a mutual deſtruction of arguments, and the ſuperior only gives us an aſſurance ſuitable to that degree of force, which remains, after deducting the inferior."

This, with ſome limitation, might be granted him, without, perhaps, detracting from the credibility of the ſcripture miracles: and could we ſatisfy his demand, the higher and more over-ſtretched it is, the more ſtrongly would the credibility of thoſe miracles be proved. This our author actually performs, whilſt, true to his ſyſtem of neceſſity, he remarks, that, with reſpect to the human mind, its actions and movements follow certain laws as ſteadfaſt, a courſe of nature as unalterable, and an analogy as unfailing, as thoſe which take place in the corporeal world. He ſhews, though briefly, that, on the ſuppoſition of the teſtimonies in behalf of the goſpel miracles being falſe, as great a miracle, and as great a deviation from analogy, muſt have taken place in the moral world, as muſt have happened in the phyſical, ſuppoſing theſe teſtimonies to be true. Miracles in the phyſical world preſent us with new and unheard of occurrences, and an apparent connection of cauſes and effects, ſuch as we have never experienced, and cannot explain in the ſame way as all our other obſervations and knowledge of the courſe of things. In the moral world they exhibit to us new men, that perceive, think, and act in a manner which we could neither expect nor believe from our internal feelings, or from our conſtant and uniform experience of mankind.

Men ſo wonderful, ſo ſingular in their kind, muſt the firſt preachers of chriſtianity have been, had the miraculous events, on which their doctrines and proceedings were founded, been purpoſely forged by them, or had their belief of them ariſen from ſelf-deception. In the firſt caſe they would have been impoſtors, but ſuch impoſtors as the world never beheld. For when men practiſe deceit it is with a view to gain; but their deceptions led to their own detriment. Void of fear and hope, the uſual incentives to human underſtandings, they were led to frame their impoſitions neither by one, nor the other. They feared none of thoſe things which impoſtors uſually fear: they braved the oppoſition of a whole world ſtirred up againſt them, and the obſtacles thrown in their way by artifice, induſtry, learning, power, and authority. Quite defenceleſs, they

voluntarily encountered all theſe enemies, and went as ſheep to the ſlaughter. But perhaps they figured to themſelves the conteſt leſs arduous, and victory more eaſy? No: they did not flatter themſelves with fallacious repreſentations. This is clear from their own and their teacher's explanations on this head, and from the never flinching conſtancy with which, to the end of their lives, they endured the extremeſt troubles and perſecutions, without expreſſing the leaſt aſtoniſhment. Perhaps the dread of greater evils made them ſo patiently ſubmit to the leſs? They that renounced life, with all its comforts and enjoyments, had no greater evil to fear in this world. If their impoſture went ſo far as to teach and confirm a future ſtate, which they themſelves did not believe, they had as little to fear in it, as to hope. If however they believed in future rewards and puniſhments, they could conſider the propagation of this belief by means of a grand wilful impoſture, and vile blaſphemous lies, at moſt as pardonable from the benevolence of their purpoſe, but by no means as a title to reward, and a duty of conſcience. Marvellous would it have been, under ſuch circumſtances, had they felt themſelves impelled to this impoſture by the fear of future puniſhment. Hence it is evident, that they had nothing to hope, unleſs the being conſidered as founders and heads of a poor perſecuted ſect, that muſt be as contemptible to them as they were in the eyes of the world, and on condition of being themſelves moſt eminently expoſed to the poverty, contempt, and perſecution attending it. And even this wretched hope, of being the chiefs of a proſcribed and deceived people, they could not, with any ſhadow of reaſon, in their totally deſerted and defenceleſs ſituation, entertain. If notwithſtanding it be ſuppoſed, that ambition, though diveſted of all intereſt and every view to pleaſure or comfort, was the true motive of their undertaking, it cannot but appear ſtrange, that this ſhould have entered into the heart of a ſingle individual. Even in this caſe ſuch individual would have aſſumed to himſelf excluſively the ſupremacy, in order to ſatisfy his ambition. But here we have at leaſt eleven competitors, each of whom, by ſimilar pretenſions, incroaches on the ambition of the reſt, makes their claim to be conſidered as diſcoverers queſtionable, and ſets inſupportable limits to their authority. Nay theſe men, who had ſacrificed every thing to their ambition and luſt of power, placed a twelfth by their ſide by lot, and, which is moſt extraordinary, bore without repining, that a young man, who had publicly been their perſecutor, ſhould, without their knowledge and aſſent, aſſociate himſelf with them, and pretend to like powers and prerogatives. They diſplayed no envy at the happy ſucceſs of his endeavours, or his increaſing fame, though it ſeemed to obſcure theirs: nay they permitted this new comer to attack their deareſt prejudice, oppoſe himſelf to them as one of the moſt eminent on a ſignal occaſion, and openly accuſe them of diſſimulation. Their deeds, it is true, were actually, or in appearance, ſo powerful and ſtriking, that they not unfrequently excited the utmoſt reverence in their beholders; but then, with a great appearance of modeſty and humility, they refuſed the honour and admiration themſelves, transferring it wholly to God, and their crucified

crucified maſter. Their own aſſertions, that they were free from all ambition and luſt of power, are perhaps of no weight: but when they promulgated an expreſs injunction of their teacher againſt thoſe paſſions, and a recommendation of humility, they obviouſly acted contrary to what is ſuppoſed to have been their inducement, and forgot the only purpoſe they could have had in carrying on their impoſture. Still their conduct is a ſettled contradiction to this purpoſe, and they could not have acted otherwiſe, had it been quite different. Had they this purpoſe, and had they continued to act in this manner, notwithſtanding they obviouſly failed of effecting it, it would be a miracle not to be explained.

An adroit and cunning impoſtor would play off his deceptions in private: he would endeavour to withdraw as much as poſſible from the obſervant eye every circumſtance that could tend to detect him: and were he not certain of his point, either truly or in imagination, he would not permit it to be brought to a teſt, which might eaſily diſcover him, or leave it to proofs, the validity of which every one might aſcertain. He would exert all the powers of his mind to conceal his ſecrets, on which the ſucceſs of his impoſture muſt depend, and to give a due conſiſtency to his impoſture itſelf. In this he would not ſuffer himſelf eaſily to be caught. In collateral circumſtances he would be rather ſparing, and exhibit his deceptions ſingly, as he could not adjuſt every occurrence, and his preceding and ſubſequent conduct, ſo naturally to his plan, but that they might awaken ſuſpicion. The oppoſite of all this appears in thoſe who bore teſtimony of Jeſus. Had they been impoſtors, they could have hit upon no ſcheme more improbable, than that of deceiving by pretended miracles. It did not depend on the extraordinary penetration of a few to diſcover their falſehood, but it was in the power of every one who had common underſtanding to do ſo, and were they not concerned in the plot, they muſt conſequently pronounce its doom. Still more, they unneceſſarily expoſed themſelves to the hazard of being detected, by promiſing to impart the gift of working miracles; actually imparting it, according to their own accounts; giving inſtructions for its proper uſe, and dehortations from the abuſe of it; and finally puniſhing thoſe who were guilty of ſuch abuſe. The more eaſy and inevitable the diſcovery of an impoſture under ſuch circumſtances, the leſs muſt they who went ſo far have feared it. And were it notwithſtanding undiſcovered, producing ſuch an important and durable change in the world as no true occurrence has ever yet effected, this would be the greateſt miracle.—But it was probably the imprudence of the pretended workers of miracles, that led them to appeal to the performance of them in proof of their miſſion; and their being believed was owing to the ſtill greater folly of the ſpectators.—But how is this extreme imprudence reconcileable with that cunning and caution diſplayed in the artful ſketch of their impoſture, which are ſuch, that we muſt ſuppoſe them capable of having forged the goſpel hiſtory, or falſified it to anſwer their purpoſe, without the leaſt trace of this forgery or falſification appearing, and ſo ſuitably and naturally adapting their ſubſequent conduct to the character

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they had once aſſumed, as to be deemed the moſt ſincere and open-hearted of mankind? If we do not allow them ſuch artfulneſs or badneſs of heart, as purpoſely to have forged or falſified the goſpel hiſtory, ſo far as it concerns themſelves, and the contradiction between their preceding and ſubſequent thoughts and conceptions; this change in their minds, ſuppoſing the miracles to which they aſcribe this change not to have happened, muſt be attributed to the immediate effect of a miracle on their brains.

If it be attempted to explain miracles by the lax term of fanaticiſm, and, to make this the eaſier, the meſſengers of Jeſus be conſidered at once as impoſtors and fanatics, they muſt have been deceived themſelves in thoſe points in which they attempted to deceive others. Thus their enthuſiaſm muſt have led them to believe the reſurrection of Jeſus, which was the grand theme of their diſcourſes, and the foundation of their whole ſyſtem, to be true. If this enthuſiaſm were not ſingular in its kind, and altogether miraculous, they muſt have turned the whole attention of their minds to that point, expected it ſo long, and figured it to themſelves ſo frequently and forcibly, that their heated imaginations at length impreſſed it on their minds as vividly as perception itſelf could have done. Thus enthuſiaſtic notions ariſe, and thus muſt their fanaticiſm have originated. But their account of the origin of their belief in the reſurrection of their maſter does not agree with this. They expected it ſo little, as they tell us, that they could not give credit to it. They doubted it in the higheſt degree; and it ſeemed as impoſſible to them as it ever can do to the preſent opponents of chriſtianity. If, under ſuch circumſtances, they believed it as fanatics, their fanaticiſm muſt have been a miracle. If it be ſaid that they forged their accounts, in order to avoid all objection and ſuſpicion of fanaticiſm, it muſt be granted, that they knew themſelves to be fanatics, and therefore ſought to guard againſt the diſadvantageous conjectures of others. This claſhes with the confident certainty each individual fanatic muſt have had of the truth of his imagination. They muſt have been conſcious, that the grounds, on which they were convinced of the reſurrection of Jeſus, were inſufficient to convince others. Thus they muſt have had recourſe to the moſt deliberate forgeries, and artful inventions to make others believe what was clear and unqueſtionable to their enthuſiaſtic minds. They muſt have been fanatics and impoſtors in ſo high a degree, at the ſame time, as would include an impoſſibility. We can conceive that a man, who has imagined himſelf to have ſeen an apparition, and is ſo far a fanatic, when he relates the ſtory to another, whom he wiſhes to convince of its reality, may ſupply ſome conſiderable circumſtances, in order to give it the greater air of probability. Such a deception is not only conſiſtent with fanaticiſm, but even ſcarcely to be ſeparated from it. But had the diſciples of Jeſus imagined, that they had ſeen him after his reſurrection, and purpoſely feigned, that they had converſed with him after it, verbally and circumſtantially relating the converſation; when they tell how he removed their doubts, appeared to them in private and in public, ate with them, &c. ſuch fictions would have perfectly excluded fanaticiſm, and rendered

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it impoſſible, as fanaticiſm would not have admitted ſuch fictions: or we muſt ſuppoſe the extremes of prudence and folly united in the ſame mind, on the ſame occaſion.

On a nearer examination of the caſe, we muſt wholly give up the ſuppoſition of fanaticiſm, unleſs we maintain, that they, who ſtole the dead body of a man from the grave, in order to give out, that he was ariſen from the dead, could at the ſame time have believed his reſurrection, in their miſtaken imaginations. For as the apoſtles appeared publicly at Jeruſalem, with the witneſſes of the occurrence, a few weeks after it was ſaid to have happened, it is clear that the body of Jeſus was no longer to be found in the grave; as no one could have the ſtupid effrontery to maintain the reſurrection of a perſon, in a place where the dead body was ſtill to be ſeen. What inconceivable ſtupidity could have prevented their powerful, reſpected, and cunning enemies, from carrying theſe ſhameleſs promulgators of lies to the grave, to their eternal confuſion? If, however, the grave were ſtill to be found, with the body no longer in it, there was no pretext for the enemies of Jeſus but this, to which they had recourſe, that his diſciples had ſtolen the body. Now let any one judge, whether there be in nature ſuch a character, as muſt be aſcribed to the eleven on this ſuppoſition. Let any one judge, whether a way of thinking, capable of producing ſuch an attempt, be compatible with that which the goſpel hiſtory attributes to them previous to this knaviſh impoſture, without a marvellous alteration, or rather a new formation of the mind. If it be ſaid, as I have already remarked, that this contradictory deſcription of themſelves was purpoſely and artfully contrived, to render their account of the reſurrection of Jeſus credible, and if it were not phyſically impoſſible for them to have executed this difficult and dangerous impoſture, let any one judge, whether the following contradictions be reconcileable. Renouncing their national prejudices imbibed in early youth, the religion of their forefathers, and their deareſt hopes, they muſt have choſen a man who had ſeduced and deceived them as their leader, made him their idol, and recommended him as an object of adoration and prayer, truſt and imitation, to their own countrymen, by whom he was crucified, and to the heathen, who knew nothing of him, but that he had died the death of a malefactor. This they muſt have done with a fixed reſolution, and mad deſign, of ſacrificing and ſuffering every thing that men could ſacrifice or ſuffer: determining to carry their plan into execution by no uſual means, not by force, or learning, which they did not poſſeſs, not by cunning and addreſs, flattering and gaining the paſſions, but by the moſt meek and patient endurance, and a bold and open avowal of what they maintained to be true, and yet knew to be not ſo. With all this they muſt have intended to make mankind tranquil in the conſciouſneſs of the divine benevolence here, and happy in a future ſtate, by promulgating the knowledge of the true God, and the worſhip that would be acceptable to him, and by recommending righteouſneſs, virtue, and charity. Were theſe their purpoſes, and that to which they ſo evidently laboured muſt aſſuredly have been their deſign, they muſt have been at the ſame time the moſt godly and the moſt ungodly, the moſt

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honeſt and moſt diſhoneſt, the moſt zealous promoters and moſt callous betrayers of truth and virtue, the warmeſt friends and the bittereſt enemies to mankind, the moſt cunning and moſt ſenſeleſs of all men. The moſt godly: for they dedicated themſelves wholly to the ſervice of God. Their truſt in him ſeems to have been unbounded, and the ſole buſineſs of their lives was to make men love and honour him. The moſt ungodly: for they were not aſhamed of carrying on the moſt deliberate impoſture before the face of a juſt and all-ſeeing God. They placed by his ſide a man, who, they were convinced, was either a mad enthuſiaſt, or a wicked impoſtor. The moſt honeſt: for they demeaned themſelves with ſuch open-heartedneſs, impartiality, and want of ſelfiſhneſs, as were incapable of reproach. The moſt diſhoneſt: as they conducted themſelves thus irreproachably only to aſſiſt their impoſture, and ſtamp credit on their lies. Promoters of truth and virtue: as religious and moral truth are infinitely indebted to their labours, both with reſpect to theory and practice. They gave inſtructions ſo far above the general knowledge of their time, that, judged according to this, they appeared the fruits of madneſs: but the ripened and improved underſtanding of later ages vindicated the honour of their precepts, and a purer philoſophy adopted them. They ſupported their well-defined, pure, and rational doctrines of morality, by motives the moſt weighty, and moſt adequate to our nature. They aſſured the penitent ſinner of, what he muſt wiſh, yet durſt not confidently hope for, the grace of God, and a full pardon. Thus they excited in him gratitude to God, and made that powerful motive of the human heart an incentive to virtue. But when they aſſured him of this pardon, they by no means led him to a ſecurity void of fear. They ſeem to have been too well acquainted with human nature, to truſt to gratitude alone as a ſufficient motive to a virtuous conduct. They knew, that, in the preſent imperfect ſtate of man, fear is indiſpenſably neceſſary to impel him to his duty. Hence they repreſented the forgiveneſs of God, with all its happy conſequences, and preſent enjoyments, as a benefit to be acquired by means of the greateſt humility, moſt painful ſufferings, and magnanimous ſacrifice of a perſon above all meaſure exalted, innocent, virtuous, and benevolent. From the greatneſs and importance of the offering, whereby the ſinful and unhappy world was to be freed from miſery, and the dominion of vice, they led us to eſtimate the extreme perniciouſneſs of ſin, and the magnitude of the divine diſpleaſure. Thus to incite us to good, they united fear with love; preached, as, according to their own account, it was delivered to them by their Maſter, the forgiveneſs of ſins in his name, but not without repentance; pointing out to us a God from whom this forgiveneſs was to come, that we might fear him. The doctrine of a benefactor and ſaviour of mankind, who offered himſelf up for them, was applied by them in other ways to the advantage of virtue. They deſcribe him to us as the prince of ſalvation, gone before us, and made perfect by God through his ſufferings. They hold him up to us as a pattern, that we might conſider our ſufferings as neceſſary to our perfection. By his going before us we are excited to embrace theſe neceſſary and wholeſome ſufferings; by his example

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we are taught how to bear them; and by his victory we are filled with the hope of overcoming all the difficulties of our toilſome career, and even the terrors of death. Finally, by announcing the fate of this great and exalted perſon, they give us the cleareſt proof of a future ſtate; and aſſure all who ſuffer with him, that with him they ſhall be raiſed to glory. It muſt at leaſt be confeſſed, that ſuch a plan requires no ſmall knowledge of human nature in its inventors; that every thing in it conduces to the moral improvement and perfection of mankind; and that every wiſe and virtuous philanthropiſt muſt wiſh it to be true. Yet they who held this out to the world were nevertheleſs traitors to the cauſe of truth and virtue. They built the moſt important truths upon lies, and expoſed them to the moſt imminent hazard of being rejected together with theſe. They were traitors to virtue: for they made belief in an impoſtor the moſt important, and, as it ſeems, the excluſive principle of acceptable virtue; a mean of the forgiveneſs of ſins; and a neceſſary condition to that confident hope in a future ſtate, which was to give men the courage to be virtuous. They held up as a pattern of virtue the character, morals, life, and death of a man abandoned and rejected by God. They made all the conſolation of ſuffering innocence, and all the hope of ſtruggling virtue, depend on the life, power, and authority of one who was dead. They endeavoured to deter the raſh and hardy ſinner from vice, by the fear of a man, who had announced himſelf as the judge of the living and the dead, and had promiſed, that he would riſe again, as a proof of his being ſo. They were the warmeſt friends to mankind: for they undertook to make men virtuous, contented, and happy in God, without the leaſt ſelf-intereſt, againſt all probability, and at the expence of ſuffering the greateſt evils. They preached a religion, the ſtricteſt command of which was charity, the pureſt, ſincereſt, and moſt extenſive charity; which ſtrongly enjoined compaſſion, forbearance, patience, and forgiveneſs; and which was evidently the moſt benevolent ever publiſhed to the world. Still theſe preachers of love were the bittereſt enemies to their fellow-creatures. For, not to mention that the indemnification and recompenſe which they promiſed their deluded followers, for the ſacrifices they were to make, and the evils they muſt inevitably ſuffer, were chimerical, and founded on a non-entity; in order to propagate their lies, they were guilty of the vileſt miſdeeds, were diſturbers of the public peace, inſtigators of men againſt each other, calumniators of their innocent countrymen, rebels againſt lawful authority, and infamous inſurgents againſt the eſtabliſhed government of their country. They were moſt cunning: as they invented, in ſupport of their impoſture, every thing that could tend to make it credible. But this impoſture itſelf, the ſtealing out of his grave a dead man, a maleſactor execrated by his own people, and then giving it out, that he had riſen, was the moſt ſenſeleſs and abſurd that it is poſſible to conceive.

Though perhaps I have ſaid the leaſt, and probably far from the moſt important, of what might be offered on the ſubject,* and the moral miracle muſt appear ſtill greater if we conſider the reception, effect, and conſequences of the miſſion of Jeſus; ſtill it may ſuffice to ſhew, that, however prone men may be to deceive themſelves on every occaſion, and particularly in religion, and to give way to enthuſiaſm, ſtill they do not deceive in ſuch a manner as the apoſtles muſt have done, and are not ſuch fanatics as they muſt have been, had the miracles they relate, and particularly the reſurrection of their Maſter, been falſe. If they were impoſtors and fanatics, it muſt have been the immediate effect of a miracle wrought on their minds: as, on that ſuppoſition, their conduct betrays ſuch a deviation from moral order, and ſuch a violation of the laws of the intellect, as muſt be deemed a miracle. Whether this miracle be greater, or leſs, than thoſe which are offered in confirmation of chriſtianity, it is not eaſy to determine: but this does not require a very nice inveſtigation. Were the two kinds of miracles equally unuſual, extraordinary, and anomalous, nay, did the moral one appear leaſt ſo, ſtill the moral miracle in this caſe muſt appear infinitely more improbable to the candid deiſt than the phyſical. The purpoſe of the latter is conſonant to the attributes of God, worthy of the Creator, Father, and Governor of mankind, and beneficial to the human ſpecies. The moral miracle, on the contrary (whether we aſcribe it to the immediate operation of the Almighty, to preordained phyſical laws, or to the influence of ſome demon let looſe for the deluſion and perdition of mankind) exhibits to us a Deity, at the diſcovery of whom we muſt ſhudder—a Deity, who delights in bewildering man's underſtanding, afflicting his mind with irremoveable doubts, placing inſurmountable obſtacles in the courſe himſelf has marked out for him, and engaging him in a moſt perilous conflict. And this fearful affliction would be more eſpecially the lot of the worthy few, who reflect on their deſtination; and the reward of thoſe honeſt minds, who diligently ſeek the truth, to raiſe themſelves to an exalted benevolence, and a ſimilitude with God. They, on the contrary, who value not the truth,

* I remember ſome years ago to have read an excellent article on this ſubject, in the Gottingen *Anzeigen von gelehrten Sachen*. The reviewer of an Engliſh anſwer to Hume's Eſſay on Miracles, not only commended the method here employed, as the beſt and moſt concluſive againſt that ſceptic's objections, but gave a comprehenſive though brief expoſition of the arguments. I regret, that I have not the journal at hand, to extract a paſſage ſo important to my purpoſe. I was much pleaſed with it at the time; but I can recollect only what was ſaid of the traitor Judas, This, if I miſtake not, it is ſaid, is the moſt important witneſs, not only that the miracles of Jeſus actually happened, but alſo, that there was no impoſture in the caſe. He carried the purſe, and, as money is indiſpenſably neceſſary to an impoſture, muſt have known the deceit from the firſt. He had conceived a grudge, and, as it appears, a ſuſpicion againſt Jeſus, probably for noticing his diſhoneſty; and determined to betray him. He did betray him. But when he ſaw that Jeſus was condemned to death, he accuſed himſelf in the judgment hall of having betrayed innocent blood, returned the money in extreme deſpair, acknowledged that he was the greateſt villain in the world, and hanged himſelf. He muſt have been perſuaded, that the miracles of Jeſus were true: and if he, to whoſe exculpation it was ſo eſſential to find Jeſus guilty of impoſture, could accuſe him of none, it was impoſſible for him to have been an impoſtor.

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the multitude of mere machines who never reflect, would vegetate in peaceful ignorance, and happy ſtupidity, freed from the rack of doubt. If the conſideration of the divine perfections, and a miracle anſwerable to them, performed a confirmation of a rational religion, in a caſe where we muſt chooſe between ſuch a phyſical miracle and a moral one, do not incline us to the former, we muſt reject every notion of God, and his moral government, that is agreeable to right reaſon. If, after a careful examination of the doctrines and precepts of chriſtianity, an impartial inquiry into the character, way of thinking, opinions, and views of its firſt preachers, and an accurate inveſtigation of the way in which it was introduced into the world, propagated and maintained, a man be convinced, that they who taught it, and they who received it on their words, thought and acted naturally and rationally, on the ſuppoſition of the miracles related being true, and on the contrary unnaturally, incomprehenſibly, and miraculouſly, on the ſuppoſition of their being falſe, and that man ſtill have any grounds for doubting whether chriſtianity be a divine inſtitution; we muſt confeſs, that to meditate on religion, and our relation towards God, is the moſt vain and unfortunate occupation of our mental faculties; and that, as ſuch meditations muſt lead us into doubt, tranquillity is only to be obtained by adopting popular ſuperſtition, or abjuring thought. From what has been ſaid it appears how and why the overſtrained requiſition of the Scottiſh philoſopher, namely, that to render the account of a miracle credible, it muſt be a greater miracle for it not to have happened, ought to be limited.

But are moral miracles conceivable?* With our author I ſuppoſe the affirmative, when I admit the human mind to be ſubject to an eſtabliſhed order, by which its changes are as firmly bound, as ſubſtance by the laws of motion. According to the doctrines of neceſſity, all the perceptions and determinations of the mind are ſo connected, ſo dependant on each other, that the ſubſequent ſtate of the mind is always determinable from the preceding, and chance is entirely excluded. On this ſuppoſition we are juſtified in preſuming upon as firm an order in the moral as in the phyſical world,

* No one who admits the poſſibility of phyſical miracles, can well doubt the poſſibility of moral ones. Whether ſuch ever happened, or whether it be probable that God would perform ſuch, is a different queſtion. Philoſophy ſeems to combat theſe miracles, or any forcible violation and change of the proper activity of the ſoul, on the ground, that the perſonal identity of the thinking ſubſtance which is acted upon would be thereby deſtroyed. The ſcriptures give us no inſtance of a miracle changing the character and way of thinking of a man immediately. When a miracle was requiſite to this purpoſe, a phyſical one was always employed, as in the converſion of Paul, for inſtance; and this was to prevent the neceſſity of a moral one. The remarkable paſſage in Exodus, xiii. 17. ſeems to prove, that God found it inconſiſtent with his wiſdom to perform moral miracles. It is true we muſt admit, on a certain notion of divine inſpiration, that God works proper pſychological miracles: but I will not attempt to decide, how far the objection to moral miracles is applicable to that inſpiration. A man might be inſpired by means of a pſychological miracle, without having his mind altered or amended, as was the caſe with Balaam.

and deviations from it, or an apparent union of cauſes and effects contradicting all analogy and experience, are as much miracles, as ſimilar deviations from the analogy obſerved and admitted in the phyſical world. If, however, we deny neceſſity, and maintain the freedom of indifferency, we muſt admit no moral miracles, at leaſt in the manner required by Hume to eſtabliſh the truth of the miracles related in ſcripture. According to this ſyſtem, chance rules over the actions of the mind, though not over the phænomena of the corporeal world. Now where chance exiſts anomalous conſequences may and muſt follow, and new appearances muſt ariſe, which will not be more improbable than thoſe hitherto obſerved, or at leaſt cannot paſs for miracles, as we have nothing fixed, no courſe of nature, no analogy to be violated. We cannot on this ſyſtem determine, whether a certain mode of thinking or acting be natural, unnatural, or ſupernatural, in any individual character (if according to it there be any ſuch thing as a determinate character). According to this notion the mind and its actions may be compared to a caſe, out of which the letters to compoſe a book are taken blindfold. Whatever be the order into which the letters fall, I cannot ſay of the ſeries ariſing, after a certain number of attempts, that ſome are natural and probable, and others unnatural and miraculous: new and various combinations may, and indeed muſt, ever ariſe, and the only improbable ſeries would be one giving an intelligible and connected ſenſe, as ſuch would be contrary to the nature of chance. If we ſay of God, with Pope in his Univerſal Prayer, that he

Binding nature faſt in fate, left free the human will;

and underſtand it to ſignify that God has ſubjected the irrational and inanimate creation to fate, or a connection of cauſe and effect, and on the contrary has left the human mind free from all laws, and to the arbitrary guidance of a blind choice; the former cannot deviate from its laws, ſhew itſelf under a new form, or exhibit effects ariſing from no cauſe; but the human will may, from the freedom given it, run into the moſt irrational propenſities, and incomprehenſible determinations. In ſhort, we thus find in man no determinate certain character, no way of thinking, deſign, or plan, on which we can fix our eyes, or from which we can deduce any inferences with the leaſt appearance of probability. If theſe conſequences of the ſyſtem of the freedom of indifferency, or chance, be juſtly drawn, its partiſans, if they be true to their ſyſtem, muſt find it difficult, if not impoſſible, to admit any human teſtimony as ſufficient to ſupport the credibility of a miracle. For how could they overcome the objection, that, as it is poſſible for the witneſſes to have been deceived, and to have advanced falſehoods, in an irrational and incomprehenſible manner, this was probably the caſe? Now as ſuch witneſſes are moſt important and indiſpenſable to the logical demonſtration of the truth of chriſtianity, it is clear, from this conſideration, that the ſyſtem of neceſſity, which muſt be tacitly admitted, if we would eſtabliſh their validity and credibility,

credibility, cannot be dangerous or detrimental to the chriſtian religion. So litttle is it either, that it gives the due force and validity to the moſt rational arguments for its truth.

But are we as capable of remarking a deviation from moral, as from phyſical order? Is our judgment as certain in the former caſe, as in the latter? Theſe difficulties may be objected, though we admit what has hitherto been advanced. To me every thing ſeems to be alike in both caſes, except that more underſtanding, ſkill, attention, and reflection, are neceſſary to judge of a pſychological or moral miracle, than to the diſcovery of a phyſical one; at leaſt if it be ſo public, firm, and void of all juggle, or *deceptio viſus*, as the miracles in the goſpel. If theſe greater requiſites to the diſcovery of a moral miracle render the point more difficult, ſtill it will not be leſs certain, if they be properly applied. Probably the judgment may be ſtill more certain, if it be true, as it appears to me, that philoſophy is farther advanced in the knowledge of the human mind, its faculties, powers and actions, than in the knowledge of nature and its powers; has made greater and more important diſcoveries in the moral, than in the phyſical world; and is more perfectly and accurately acquainted with the changes produced in our minds, than with any thing elſe. Some philoſophers, it is true, will maintain the contrary; but the reaſon is, that in their inquiries into ſo near and intereſting an object, they are deſirous of tracing every thing to its primary ſource, without conſidering how much leſs of the nature of ſubſtance we are capable of diſcovering by an equally deep and ardent inveſtigation. I will not preſume to ſay, that there are no unexplored regions in the moral world, or nothing left for future inquirers into the human mind to diſcover; but I do not believe that we are ſo ignorant of the powers and actions of the mind, as to be unable to decide whether a certain mode of conduct be natural, or unnatural, ſuitable to its nature, or contradictory to it. In my opinion, what we know of the ſubject, and what we are capable of knowing from conſtant experience, and from an attentive obſervation of men's characters, way of thinking, propenſities and manners, will be found ſufficient for this purpoſe. I believe, indeed, that we can more certainly judge whether a given mode of conduct, or ſeries of actions, in a given ſituation, and under given circumſtances, be natural to a given character, or to the human mind in general, and conſequently to be expected, or not; than, from our knowledge of the phyſical world, we can determine what is poſſible, or impoſſible in it. The firſt obſervers of human nature ſeem to me to have known what is requiſite to the former; and what the reſearches of ſubſequent ages have added to their knowledge ſerves rather, I think, to the gratification of curioſity, and the enlargement of the bounds of ſpeculative philoſophy, than to the benefit of real life, or the improvement of the art of bending man to our purpoſes. It appears to me of ſome weight, that later diſcoveries have by no means ſhewn the knowledge of human nature, delivered to us in the writings of its firſt obſervers, to be ſo imperfect, or erroneous, as the phyſical notions of the ſame ages. They muſt have been capable, therefore,

therefore, of more fully examining, and more eaſily and juſtly viewing the moral, than the phyſical world. Conſider what Ariſtotle has written on the faculties and actions of the human mind: his logic perfect at the firſt attempt; his moral and political writings; are they not ſtill the ſubject of our admiration, and the rule of our taſte? And are they not uſed as helps to our knowledge of man, and all the arts and ſciences dependant on it? Though the characters of Bruyere are more diſtinct and finiſhed than thoſe of Theophraſtus, the latter is not leſs true and juſt in his moral delineations: and where ſhall we find a modern hiſtorian better acquainted with the human heart than Tacitus, or who ſcrutinizes it with more depth of penetration?

Thus it ſeems, that we have a ſufficient knowledge of mankind, to examine the probability or improbability of an account of human actions, and to judge whether moral analogy be obſerved, or violated in it. Our inquiry will go to this, whether the men deſcribed actually felt, thought, and acted, as we ourſelves ſhould have done in ſimilar circumſtances, or not. Though the leaſt learned and philoſophical are not deſtitute of this knowledge, they alone who have ſome knowledge of the world can exerciſe it readily, and with certainty. Every thinking and attentive reader remarks deviations of this kind, and always with unwillingneſs and diſſatisfaction. They deſtroy the illuſion and intereſt we feel, far more than violations of phyſical order. It is much more unpleaſant to us, to perceive an inexplicable contradiction in a character, an unfounded want of connection in a proceeding, or a pſychological and moral miracle, than exceptions from the laws of the natural world, or phyſical miracles. The fabuliſt may give his Proteus what wonderful forms he pleaſes, now change him into water, and then into fire; ſtill we forgive him whilſt he remains true to the character he has adopted. The magician may with his wand change the moſt frightful deſert into a beautiful garden, or a pile of rough ſtones into an elegant palace, and act as an uncontroulable lord of nature. But if the poet preſent us with men whoſe perceptions, thoughts, and reſolves are unconnected, unfounded, ineffectual, and tending to no end; if he introduce on the ſtage devils or angels in human form, without accommodating the ſcene to the characters, by giving them ſuitable employment, or placing them in ſituations to juſtify ſuch bold fictions, ſo as to avoid a violation of moral analogy; he would urge our credulity to the utmoſt. Even were the laws of nature moſt ſtrictly obſerved, ſuch miracles would diſguſt us, and appear too improbable to be intereſting. The traveller may relate to us natural phænomena and occurrences never before heard of, yet, if we have no other reaſon to miſtruſt his veracity, we ſhall not eaſily reject, without examination, what he advances; and this on juſt grounds. But if he tell us, that he has met with men, who, with the ſame ſenſations as we poſſeſs of good and evil, hate their benefactors, and love thoſe who injure them, and who ſeek not to eſcape death, though extremely attached to life, we immediately condemn him as a liar.

This at leaſt ſhews an almoſt univerſal, juſt, and acute ſenſibility to every thing that agrees with moral order, or analogy, or is repugnant to it; and an equally general

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averſion to conſider any deviation from it as probable, or to be for a moment deceived into a belief of it. This goes ſo far, that we diſapprove, and reject as improbable, all caricatures of moral beauty and uglineſs, if not naturally ariſing from ſituation. And yet theſe are not properly deviations from the fundamental laws of mind. Theſe laws require connected conceptions, and exertions of the faculties of perception and deſire founded on each other. This combination is demonſtrated by conſtant experience. It is diſcoverable, though not ſo readily, in madneſs, frenzy, and fanaticiſm. The laws of mind are but apparently violated in the madman. Still we find in him a pſychological and moral order, though to perceive it requires the penetrating eye of a Cervantes, a Shakeſpeare, or a Richardſon. Whence comes it, that the fools, madmen, and fanatics of theſe followers of nature intereſt us ſo agreeably? It is becauſe in all their apparent deviations they remain true to moral analogy. They ſpin the thread throughout as they begun it; without cutting it, and tying together ends never deſigned to meet. Their work is all of a piece; and they carefully guard againſt repreſenting the human mind to us as an inſtrument from which various hands produce unconnected tones. Such inſtruments would perfectly reſemble the minds of the firſt preachers of chriſtianity, were we to reject the ſole ground on which the apparent contradiction, and inconſiſtency, of their characters, and conduct, are to be explained, and reconciled. If the miracles, which alone afford us a key to decipher the myſterious harmony, did not happen, their minds were not guided by any ſpirit from above, but were inſtruments in the hands of ſome fiends, who called from them diſcordant ſounds without any plan. If, on the contrary, thoſe miracles actually occurred, every thing is capable of an explanation, the moral or pſychological miracle vaniſhes, and the conduct of thoſe who bore teſtimony of Jeſus appears in the faireſt light, as natural, rational, and virtuous.

PROP. CXLVII. p. 425.

Of the Queſtion whether the greater Part of Men's Actions, generally conſidered, be rather good than bad; or the contrary.

THE queſtion here ſtarted by our author, whether men be upon an average moſt inclined to good, or bad, and whether the greater number of their actions be commendable or blame-worthy, has generally been conſidered as intereſting to curioſity merely; but in his hands it becomes important, as from its ſolution he deduces an argument in behalf of virtue. It is true, indeed, that he lays no great ſtreſs upon it, and we muſt own, that the tendency of virtue, or its good conſequences, conſtitutes the chief and almoſt only argument for purſuing it, as into this all others may ultimately be reſolved. What he infers, however, from the practice and opinion of mankind may be admitted

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as a preliminary argument; and were there no other, it would have ſome weight if it be true, that the general practice and opinion of mankind give a decided preference to virtue; or if it be true, that the practice of mankind is, upon an average, more inclined to virtue than to vice. Some good grounds for this ſuppoſition are adduced by Hartley. Still the inquiry is intricate and difficult, for this reaſon, that men are not agreed on what is here to be underſtood by good and bad, and in meaſuring them employ different ſtandards. The chriſtian religion teaches us to endeavour after the attainment of ſuch perfection, and places before us ſuch a pattern of virtue, that, if we compare the actions and general practice of mankind with this perfection and pattern, deeming nothing good but what comes up to them, and ſtyling every thing that falls ſhort of them vicious or bad, we cannot deny, that men are more vicious than virtuous, and that their practice is rather bad than good. But if we form our judgment of men's actions from this point of view, a number of them, which do not here come into conſideration, and which we may deem neutral, muſt not be taken into our calculation. Such are all actions in themſelves lawful and good, that is conſonant to the ends and purpoſes of our Creator, requiſite and neceſſary to the avoidance of phyſical evil and the attainment of phyſical good, but which cannot with propriety be ſtyled chriſtian good works, not being performed on account of the law, and the exerciſe of them being unattended with ſuch difficulties as render them properly objects of reward. Such actions are thoſe which even the moſt vicious man would rather do than thoſe of an oppoſite nature, or than thoſe which may be conſidered as properly vicious. According to our common mode of expreſſion, theſe may rather be termed good than bad, though they can be reckoned neither as the good works of a chriſtian, nor the virtuous actions of philoſophy. Moral philoſophy, purified and perfected by chriſtianity, would, in my opinion, produce ſuch a pattern and rule of virtue, that the morals and actions of the majority of mankind would, on compariſon therewith, appear rather bad than good. But if we take a lower ſtandard of virtue and goodneſs than what revelation holds out, and apply this to the moral conduct of men, rather conſidering their conſtant behaviour in their common occupations, ſocial employments, and endeavours to ſupport themſelves and families, and the uniform courſe of their domeſtic life, than certain conſpicuous actions occaſioned by rare circumſtances or occurrences, I am perſuaded, that we may juſtly maintain the actions of the greater part of mankind to be rather beneficial than injurious, and, upon the whole, attended with more good than bad conſequences. Some good thoughts on this ſubject may be found in an eſſay by Dr. Jortin, in the firſt volume of the Theological Magazine, that well deſerves to be read. He obſerves, that the calculation of a man's good and bad actions muſt be taken from the general courſe of his private life, and his conduct towards his relations and domeſtics, and he will then be found commonly to perform far more acts of compaſſion, benevolence, and gratitude, than of cruelty, envy, ingratitude, and malice.

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The picture that Hartley draws of mankind in general ſeems to me to be perfectly juſt. Every man has actually within him the ſeeds of every virtue, and of every vice, and the proportion in which they thrive and ripen depends, in general, upon the ſituations in which he has been and is placed.

Circumſtances may occur forcibly to prevent the ſeeds of ſocial virtue from unfolding, and proportionably to ſtrengthen thoſe of ſelfiſhneſs and malevolence; ſuch are thoſe extraordinary occurrences which firſt excite men to vicious actions, and which, if they continue any time, induce ſuch a facility in thoſe actions, that the mind, depraved by them, ſeems to poſſeſs a diſintereſted love of vice, and to practiſe it for its own ſake. Let us ſuppoſe a ſociety of men in ſuch urgent want, and ſo preſſed by the greateſt long-continued diſtreſs, that each of them not only cannot aſſiſt the reſt, but rather muſt be injurious to them, and that each is unable to ſupport himſelf but at the expence and ruin of the others: let us ſuppoſe, that this extreme of miſery, and the peril continually before their eyes, renders each anxious for himſelf alone, and draws all his attention to the ſupport of himſelf, whilſt his whole ſoul is occupied by a continued ſenſation of pain; the neceſſary conſequence of ſuch a ſituation would be, that all compaſſion, all ſympathetic and benevolent ſentiments, would be gradually weakened, and at length totally deſtroyed. On the other hand, inſenſibility, hard-heartedneſs, envy, and cruelty, in ſuch extraordinary circumſtances, becoming the means of ſupport, and ſo far reſembling virtues, would almoſt irreſiſtibly gain the upper hand. I remember to have read an account of ſome Engliſhmen, expoſed for a time to extreme miſery and want in the wilds of America: the minds and conduct of theſe, according to the relation of one of the unfortunate ſufferers, wholly agreed with and confirm what I have juſt been ſaying. Envy and malevolence were the predominant ſentiments of theſe men towards each other, each looking upon the reſt as his enemies.

There are circumſtances on the other hand, and theſe are the moſt common ſituations of human life, in which a man may and muſt ſerve others, if he would ſerve himſelf. Any civil ſociety, but tolerably good, is thus far preferable to a ſavage ſtate, that in general, and in moſt caſes, it connects the ſupport and welfare of one with the maintenance and weal of the whole. The celebrated Rouſſeau, when he exalted the ſtate of nature ſo far above ſocial life, left this point entirely out of the queſtion, and, conſidering his ſubject ſolely on that ſide which favoured his bold aſſertion, placed in the ſtrongeſt light all thoſe circumſtances in which civil ſociety occaſions a variance and colliſion of intereſts betwixt its members, and ſo far gives birth to bad and injurious actions. With equal care did he guard againſt diſplaying thoſe circumſtances and occurrences in ſocial life which tend to the promotion of beneficence, good-will, and compaſſion. It is obvious, however, that in this ſtate ſentiments of benevolence are far more promoted and diſplayed, than thoſe of malice. How much, for example, are wrath and revenge moderated and reſtrained in civil ſociety! In the ſtate of nature we may preſume that occaſions of Injury, wrath, and revenge, will leſs frequently

occur, as the ſavage has fewer wants than the member of a civilized community: but then, as he has proportionally fewer means of ſatisfying his wants (unleſs with Rouſſeau we rate much too high the natural powers of the ſavage to ſupply his neceſſities, and the proviſion ſpontaneouſly afforded him for this purpoſe by the unlaboured earth) the caſe will nearly be reduced to an equality on both ſides. But the great difference lies here; the wrath of the ſavage rages implacably, and his revenge, whilſt he conſiders only his future ſecurity, will not eaſily terminate but with the deſtruction of his enemy. This is the reaſon why anger, and implacable revenge, are eſteemed exalted virtues by all ſavage nations, and are in general prized by people in proportion as we find amongſt them more or leſs traces of barbariſm. Civil ſociety, on the contrary, moderates and ſets bounds to anger and revenge, by holding out, and, in proportion as it approaches perfection, actually procuring to the injured party a reparation for his damage, and the injuſtice done him, rendering the avenging himſelf in many caſes unneceſſary, and even hazardous, and taking from him the trouble of ſecuring himſelf from future injuries by exerciſing it. Herein alſo we have the teſtimony of experience, that the more perfect the ſtate of ſociety, that is the more impartially, ſtrictly, and ſpeedily juſtice is adminiſtered in it, the leſs implacable revenge, and the fewer violent inſtances of it occur. It is true, that the moſt perfect civil ſociety cannot wholly remove all oppoſition and colliſion of intereſts betwixt its members, though it may reconcile the benefit of individuals with the good of the whole. Theſe are imperfections probably inſeparable from its nature. In this reſpect, however, civil ſociety may unqueſtionably be carried to a far higher degree of perfection, than it has ever yet attained in any community hitherto exiſting. To a wiſe and benevolent ſovereign, who ſincerely wiſhes the improvement of mankind, no object can be of greater importance, than to remove all ſuch variance and oppoſition of intereſts, or to render the caſes as few as poſſible in which we may procure advantages to ourſelves, without at the ſame time our endeavours promoting the good of others, or of the community; ſtill fewer ſhould thoſe be in which we cannot benefit ourſelves, but at the expence of others, or of the whole. Such are the caſes in which moſt men give way to ſelfiſhneſs and vice.

The occurrences of domeſtic life, in which man is principally to be conſidered, if we would judge of his character and conduct, are far more favourable to the promotion of ſocial inclinations, and the practice of virtue, than to the production and exerciſe of vice and wickedneſs. At leaſt, in civil ſociety, and in domeſtic life, man has far more opportunities for good than for bad actions.

PROP. CLIII. p. 448.

Whether there be Evangelical Counſels.

THE manner in which our author handles the doctrines of morality ſeems to be very natural, and at the ſame time contributes to the perſpicuity of his propoſitions. It alſo affords him an opportunity of placing in a proper light many things important in morals, that are uſually paſſed over as of little moment. The doctrine of pleaſures and pains delivered in the former part of this work conſtitutes the ground-work of his moral ſyſtem, whilſt he delivers rules for our conduct with reſpect to them. To underſtand this rule of life then, it is neceſſary that we ſhould not loſe ſight of that doctrine.

As the attainment of thoſe pleaſures, and the avoidance of thoſe pains, are the ſcope of our deſires, and the object of our endeavours, and, as morality is properly the rule of happineſs, it muſt teach us how to conduct ourſelves ſo as to obtain as much as poſſible of the former, and eſcape as much as poſſible of the latter. Human happineſs ariſes from the ſatisfaction of our deſires and inclinations, and is occaſioned by the pleaſures anſwering to them. It is highly uſeful to analyſe this into thoſe pleaſures of which it principally conſiſts, and hence to preſcribe ſuch regulations for our deſires, that they may not fail of their ends. To obtain happineſs and avoid miſery are unqueſtionably the firſt principles of morality. But theſe principles are far too general for practical application, and hence are inſufficient for our uſe. In practice, then, we muſt decompound them into ſubordinate principles. Here the diviſion of our author ſeems to be ſupremely excellent, as it wholly exhauſts the ſubject, and there is not a ſingle deſire or propenſity of the human mind which may not be conveniently referred to one or other of his ſeven primary claſſes. This diviſion has alſo the advantage of clearly and accurately ſhewing the value of our different endeavours, and what influence they may and muſt reciprocally have upon each other. Our duties are commonly divided into thoſe we owe to God, to our neighbours, and to ourſelves. With many advantages this diviſion of morals has alſo this diſadvantage, that, as many of our duties are of a compound nature, or may be conſidered at leaſt as equally duties to ourſelves and to our neighbours, we are frequently at a loſs under what head they may, with moſt propriety, be placed; hence we are led to divide things naturally connected, or to treat the ſame ſubject under two different points of view. The method here purſued removes this inconvenience. Another recommendation of it is, that thus our author was enabled to treat morality, as indeed it ought ever to be treated, as a regimen for the mind, or a rule of living for the preſervation of its health.

Good as our author's method is, and excellent as many of his notions and precepts are, ſtill I cannot deny that he appears not to have ſufficiently defined many things

which deſerve a more narrow inquiry and explanation, whilſt he has evidently purſued others too far. Under the firſt head of the pleaſures of ſenſation he ſeems here and there to have introduced an unneceſſary and almoſt aſcetic ſtrictneſs, and a monkiſh morality. This ſevere morality, it is true, our author does not preſs upon all chriſtians, but, as he clearly expreſſes, on thoſe only who ſtrive to attain the ſummit of perfection. He ſuppoſes that the duties applied to this in the goſpel are particular duties, or, as they have been ſtyled, *conſilia evangelica*, that are not obligatory to all chriſtians. This principle is the ſource of his too ſtrict and over-refined morality. Hence abſtinence in eating and drinking, when not neceſſary to preſerve the health of the body or mind, or in any other way mediately profitable, appears to him to be in itſelf ſomething devout, and approaching to perfection. Hence he ſpeaks of indulgence in meat and wine with ſuch an air of ſcrupuloſity; hence he recommends religious faſting; hence he ſpeaks ſomewhat unfavourably of marriage, which he conſiders as rather permitted than commanded, and beſtows the praiſe of peculiar ſanctity on a ſtate of celibacy. It muſt be owned, that he expreſſes himſelf here with his wonted prudence and caution, but the ground on which he proceeds is not ſolid, and is ſupported neither by reaſon nor ſcripture.

We have no proofs, that the moral ſyſtem of the goſpel contains any particular precepts for thoſe who endeavour after a higher degree of perfection, and ſuperior righteouſneſs, different from the duties which it preſcribes to all men. By theſe precepts, it is to be obſerved, are not underſtood exhortations to an heroic virtue, the exerciſe of which requires a concurrence of particular circumſtances with a rare and admirable frame of mind, as for inſtance to ſave the life of another at the riſk of our own, or to ſacrifice ourſelves for the good of our country. Theſe precepts are rather injunctions to extraordinary good works, that would be good works with reſpect to every man, and yet are not properly duties to all. They reſpect actions which every one may perform if he will. Such precepts we deny, on the principle, that they muſt be given by God, or by Jeſus Chriſt, and conſequently cannot be mere counſels, but muſt be laws. If we have a precept to do what is generally good, or what is requiſite to the greateſt happineſs, the general precept muſt be ſubordinate to the particular one. If Chriſt have given a *conſilium evangelicum* that would apply to all men, he has thereby explained what is beſt, and that it is our duty to do: if, for example, Jeſus have counſelled all his diſciples, at all times, to live unmarried, and to give away their goods, he has thus declared, that it is in general beſt ſo to do, and conſequently it is their duty. Men reſt themſelves upon ſome inſtances in which Jeſus has recommended a certain conduct that is too difficult, or indeed impracticable to ſome, and thence infer, that the precept is not obligatory to all, but a well-meant and ſalutary counſel for thoſe who will voluntarily follow it. Of this kind are the precepts which he gave his diſciples, if any one ſmote them upon the one cheek to turn to him the other, and if any one would take their cloak to give him their coat alſo. But it ſhould be

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conſidered, that this inſtruction of Chriſt was not a counſel which he gave to his apoſtles as particularly holy men, but it was a precept which their particular ſituation, the purpoſe of the buſineſs they had undertaken, and the manner of their being ſent out into the world, rendered prudent and neceſſary. Conſequently they were obligatory only on them, and on thoſe who may be in ſimilar ſituations. Their Lord told them, that he ſent them as ſheep to the wolves, or that in the execution of their office they would have the whole world againſt them, and would be expoſed defenceleſs to every violence and injury. In ſuch circumſtances, where reſiſtance would but make things worſe, where oppoſing force to force would produce no reparation of an injury, but only ſtimulate the powerful and irreſiſtible antagoniſt to freſh injuſtice and greater cruelty, and where oppreſſed innocence could lay no claim to the protection of the law, there would be no other reſource than extreme patience, mildneſs, and ſubmiſſion, to awaken the natural compaſſion of our enemies, and the feeble remains of humanity lying dormant in their breaſts. Nay more. Since, as was obviouſly the caſe, the grand purpoſe of the miſſion of the apoſtles, namely, to preach and to propagate the goſpel, far from being promoted by the exerciſe of revenge, and an active reſiſtance to injuſtice, would be rendered abortive thereby, we cannot conſider theſe merely as prudential precepts of Chriſt, but as indiſpenſable commands: yet not for ſuch whoſe circumſtances would not like theirs be bettered by ſuch an extreme ſubmiſſion, but rendered worſe by it; not for thoſe who can ſhelter themſelves from violence and ſecure themſelves from injuries under the protection of the laws: not for thoſe who have not, like the apoſtles, a new ſyſtem to eſtabliſh, the ſucceſs of which muſt depend on the meekly ſuffering every injuſtice. To follow ſuch precepts, given to the apoſtles ſolely, and founded on their peculiar ſituation, in circumſtances totally different, would be abſurd. In civil ſociety, where the rights and property of every citizen ſhould be maintained ſacred and inviolable, under the guardianſhip of impartial laws, it would be to eſtabliſh very great errors and prejudices, ſerving to ſtrengthen the hands of the wicked in violence and rapine. Hence it appears, that the notion of thoſe, who, from this wiſe precept of Jeſus to his firſt diſciples, would deduce a general evangelical counſel for the righteous and moſt perfect of all ages, and the ſarcaſms of the evil-minded, who from this precept miſunderſtood make a ſtrong objection to the moral ſyſtem of Jeſus, are equally unfounded.

If we ſuppoſe that many of the precepts delivered by Jeſus in his ſermon on the mount, if not all of them, are merely evangelical counſels, this ſuppoſition will be contradictory to that ſaying of Chriſt, that the righteouſneſs of his diſciples muſt be greater than that of the ſcribes and phariſees. The command which Chriſt gave the rich young man, Matt. xix. 21. who came to him, and aſked what he muſt do to inherit eternal life, namely, ſell all that thou haſt, and come and follow me, is alſo conſidered as an evangelical counſel. The queſtion, to which this was the anſwer, was not

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what he ſhould do, to become more righteous and perfect than other men, but what he ſhould do to inherit eternal life. The teacher to whom he applied, and whom he thus acknowledged for a truly divine teacher, counſelled him not, but commanded him, to follow him, or to become his diſciple: and as this teacher certainly foreſaw that this young man would not be ſteadfaſt in his attendance on him, on account of his wealth and his too great attachment to it, but would be excited to fall away by the threatened and dreaded loſs of his goods, he commanded him voluntarily to part with his riches, that would otherwiſe be a ſnare to him. Jeſus ſaid to him, it is true: *if thou wilt be perfect:* but he did not here mean a greater degree of perfection, or righteouſneſs, than was neceſſary to him in order to inherit eternal life; he only directed him to do what would enable him to obtain and ſecure that righteouſneſs, and perfection, neceſſary to all the diſciples and followers of Jeſus. This is clear from what follows. When this young man, who thought the injunction too hard, went away ſorrowing, Jeſus ſaid to his diſciples: verily I ſay unto you, that a rich man ſhall hardly enter into the kingdom of heaven: a ſentence that certainly would not have been uttered, had not the young man, by declining to obey Chriſt's injunction, excluded himſelf from the kingdom of heaven, and not merely from an extraordinary degree of righteouſneſs and perfection.

St. Paul's recommendation of celibacy, 1 Cor. vii. has alſo been deemed an evangelical counſel. That Chriſt likewiſe recommended it, as obſerved by our author, I can no where find: for the words, that till the time of his laſt coming men ſhould marry, and be given in marriage, cannot poſſibly be conſtrued as a miſpriſion or undervaluing of that ſtate. They mean nothing more, than that, even at the time, ſo great a change of things would not be foreſeen, and conſequently, that men would be ſo little prepared for the cataſtrophe, as to remain in a ſtate of peaceful ſecurity, following their worldly occupations, eſtabliſhing new houſeholds, and forming matrimonial connections, which are uſually done in times of peace and ſecurity alone. Though Jeſus, on more than one occaſion, proclaims woe to thoſe who are with-child, and to thoſe who give ſuck, this can by no means be conſidered as a diſapprobation of matrimony. He laments the married only on account of their greater pains and trouble, to which they are more expoſed than thoſe who remain in a ſtate of celibacy. As to the counſel of St. Paul, it appears, as he ſays he gives it not as a commandment, and that every one may do as he will, but that it is better to remain unmarried, that this expreſſion has every thing requiſite to conſtitute an evangelical precept. It may with great probability be ſaid, that this is a precept of an extraordinary good work in all men who can and will conform to it, but that it is yet no duty. It may be obſerved, however, that the apoſtle explains it not as any ſuch extraordinary good work, and no where ſays, that he recommends celibacy on this account. It is rather clear, that he adviſes it merely on account of its convenience. It is with him merely the dictate of prudence. He ſays, he would that every one would remain unmarried, on account of the carefulneſs ariſing from

from marriage, and the pains and troubles to be expected, the burden of which is much more heavily felt by the married, than by the unmarried. If the circumſtances of thoſe times, when thoſe who were incumbered with a family had much ſeverer conſequences, and greater perſecutions to fear, were the grounds of this apoſtolical precept, it was not given to thoſe who live in other times, and in different circumſtances. St. Paul had before given this general precept, that, to avoid fornication, every man ſhould have one wife: but to thoſe who had the gift of continence he gave this advice, that they ſhould remain unmarried, as thus they would have fewer troubles. But what is of moſt importance, St. Paul expreſsly ſays, that he, and not Chriſt, gives this counſel; and only to thoſe who were not in danger of being enticed to fornication. Beſides it can be no general rule, for were all men to follow it, the general happineſs muſt fall to the ground, and it would become a moſt urgent duty to marry. Our author endeavours to parry this objection, by premiſing, that, in expreſs precepts of the goſpel, we ought not to concern ourſelves what effect the general practice of them would have on the common happineſs of mankind, which depends ſo much on matrimony, and the propagation of the human race thence ariſing. Had we, indeed, expreſs and unequivocal precepts before us, we ought not, in putting them in practice, to look forward with caution to their poſſible conſequences. In that caſe we muſt ſuppoſe, that we did not conſider the ſubject in the right point of view, and might in ſome way or other be miſtaken. But this will not apply in the preſent inſtance, as celibacy is no where ſo expreſsly and undeniably enjoined in the moral precepts of the goſpel. We are rather to conſider, whether thoſe recommendations of it, which we find in the apoſtolical writings, be founded on the particular circumſtances of the perſons to whom, and the times when they were given, or be general rules equally valid to all men, at all times, and under all circumſtances. As long as this remains doubtful, the conſideration, how far the happineſs of mankind would be promoted in the one caſe or in the other is abſolutely requiſite to the deciſion. It is no ſufficient anſwer to the objection, that this precept, in the preſent fallen ſtate of mankind, as our author ſays, cannot be followed by all men, but only by a few, and hence its bad conſequences are not to be regarded. By this ſubterfuge, it ſeems to me, many evidently bad actions may be defended as innocent and virtuous. It is indiſputable, that an immediate good may be procured by ſeveral actions that are not to be permitted, as for inſtance, the killing a cheating gameſter, a ſeducer of youth, or a pimp in a duel. But why is this murder, notwithſtanding the immediate good conſequences which it produces, an unallowed and puniſhable deed? Morality anſwers, becauſe the permiſſion of ſuch actions, and the general practice of them, would deſtroy both public and private happineſs. In juſtification of it, however, we might ſay in like manner, that we need take no thought about the general practice of ſuch deeds as ſo many other conſiderations and circumſtances would reſtrain men from it. But to this we might apply the general maxim of morality, that every evil act, which would

would be injurious, were it generally permitted and practiſed, is forbidden to us. This maxim muſt alſo be admitted here, otherwiſe the ſame objection may be made to chriſtian morals, as Rouſſeau made to the modern French philoſophers, that, if their principles did not inſtigate men to perſecute and kill one another, they tended to prevent the propagation of the ſpecies.

Were this precept followed, ſays Hartley, it would be ſtill better for us, as the coming of the kingdom of righteouſneſs would thus be accelerated. If by the kingdom of righteouſneſs he underſtand the millennium as it is called, which the Revelation of St. John ſeems to promiſe, this is probably to be conſidered as a chimera founded on a miſtaken paſſage; at leaſt we are too little acquainted with that golden period, to dare to expect in it ſuch purity and holineſs of manners as will leave no room for marriage. In a ſubſequent note we ſhall probably have occaſion to ſay more of this opinion of our author. If, however, he underſtand by it the end of the world or the laſt day, it is not eaſy to ſee on what our obligation is founded, or where we learn, that its coming may be haſtened by an extraordinary and apparently ſuper-human righteouſneſs.

Theſe are the principal inſtances and proofs of *conſilia evangelica* uſually adduced. It is obvious, however, that they are improperly ſo termed.

We ſhall now proceed to ſome other reſtrictions of our author, which we think too rigid and unneceſſary. If the rules which he preſcribes with reſpect to food be requiſite to preſerve health of body (and this, generally conſidered, they abſolutely appear to be) ſo far they deſerve to be followed. But if we abſtain from eating fleſh out of regard to animals, or compaſſion for them, or from ſome far-fetched notions deduced from the Old Teſtament, our right to the enjoyment of animal food ſeems to be unneceſſarily limited. Suppoſing that no expreſs permiſſion to eat fleſh was given to Noah and his deſcendants, they muſt have taken this liberty of themſelves, as they and animals became more numerous; and an action, without which they could not ſupport themſelves and multiply on the earth, could not be forbidden as ſinful. Savage and uncultivated nations, though not numerous, could not poſſibly ſubſiſt without the fleſh of animals, whilſt ignorant of agriculture, or, if acquainted with it, unable to purſue it from their inſecure and warlike way of life. The ſpontaneous fruits of the earth are too few, and the gathering them is too uncertain, and expoſed to too many dangers, for them to ſupply their ſole food. Hunting muſt be the moſt important occupation, and chief mode of ſubſiſtence, of all barbarous nations. Civilized people, however agriculture might flouriſh amongſt them, would not be half ſo numerous, were they deprived of animal food, as they now are whilſt that forms a part of their nouriſhment. Certain animals, that are a reſtraint on the increaſe of mankind, and which would conſume what is deſtined for their ſupport, muſt be killed by them, and kept under, or they would want room upon the earth. Finally, we are aſſured by natural philoſophers, that the fleſh of animals is a neceſſary food for man, to enable him to execute and ſupport bodily or mental labours, that require a ſtrong and continued exertion of his faculties,

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without being extremely enfeebled and fatigued. Thus, as eating fleſh is on many accounts uſeful and neceſſary to man, it is impoſſible that his nature ſhould be rendered more perfect by abſtinence from it, or that in refuſing the enjoyment of animal food ſhould conſiſt a peculiar ſanctity. It is rather a ſelf-impoſed act of religion, ſuch as St. Paul expreſsly diſapproves, 1 Tim. iv. 3.

Equally too far appears the morality of our author to be carried with reſpect to the uſe of wine. He would have it employed as a medicine and a cordial, rather than as a common drink. Here alſo I muſt obſerve, that we ought to take into conſideration thoſe only of his arguments againſt the uſe of wine, which are deduced from the nature of that liquor, and its effects on the health of our bodies and minds. On the other hand, what he ſays againſt it from the alteration of the vegetable juices induced by the flood, and particularly from the vow of the Nazarites to abſtain from wine, appears to me to be inconcluſive, and of no weight. Whatever may have been the nature of the vow of the Nazarites, we are by no means authorized, from their abjuring the uſe of wine, to conclude, that abſtinence from it is a ſtep towards higher perfection. We might with equal juſtice infer, that cutting off the hair would be an obſtacle to our attaining perfection; for againſt this alſo the Nazarites made a vow. Both theſe were moſt probably only tokens of mourning, as a man generally took this vow when about to undertake a long journey, and abſent himſelf for a time from his native country.

The praiſe beſtowed by our author on religious faſting belongs alſo to the monkiſh ſyſtem of morality, notwithſtanding there are many amongſt the proteſtants, who conſider it as an exerciſe of devotion. As I have much to ſay againſt this, let me firſt obſerve, that I ſpeak not of ſuch temperance and ſobriety as tends moſt effectually to remove diſorders of the body, induced by an improvident and immoderate indulgence in eating and drinking, and are thus neceſſary to give our minds the freedom and activity requiſite to the due exerciſe of prayer, meditation, and other acts of devotion. As far as faſting, or rather moderation in diet, is conducive to theſe purpoſes, it deſerves to be ſtrongly recommended. But faſting has no merit as an act of devotion, conſidered by itſelf, or as an action immediately acceptable to God. Can that being who is all benevolence and love take pleaſure in a man's voluntarily chaſtening his body, without his command, and thinking to honour his Creator by puniſhing himſelf? Can it be acceptable to God for man thus to endeavour to do more than he is commanded, and thence to take merit to himſelf? The notion of an intrinſic and immediate excellence in religious faſting, is altogether grounded on ſuch unjuſt and unworthy ideas of God, that it is ſcarcely worth while to ſay any thing farther againſt it. They who through ignorance and prejudice fancy themſelves honouring God by puniſhing their bodies, can at moſt expect only forgiveneſs, but their faſts can by no means be conſidered as truly good works. If, however, faſting be only valued as an immediate inſtrument of promoting inward devotion, exciting and ſtrengthening piety, and fortifying virtue, in particular chaſtity, as it appears to be by our author, it as an abſolute

duty to thoſe who are ſenſible of theſe advantages of it, as far as it is actually ſubſervient to thoſe purpoſes: but to this no ſtrict faſting is requiſite, or an abſtinence from all food for a whole day. Such faſting, far from promoting its deſigned ends, would in many reſpects be highly detrimental to them. Strict and frequent faſting is prejudicial to health, and in conſequence of it ſuch unpleaſant ſenſations commonly ariſe at our ſtated periods of eating as render us unfit for any thing, eſpecially for acts of devotion. To weaken the deſires of youth by faſting, requires ſuch an extraordinary degree of it, as would tend greatly to injure health. The body muſt be conſiderably exhauſted and weakened by the deprivation of nutritious juices. If this be not done, faſting, employed for this purpoſe, may produce directly oppoſite effects. For the purpoſe being fixed in our minds, our whole attention would be turned to it; and experience teaches us how lively this attention is capable of rendering certain ideas, even when we call in all our mental faculties to ſuppreſs them. Long faſting, practiſed for a courſe of years, may alſo imperceptibly and gradually weaken us, and occaſion a waſting of the body, whence we may grow old before our time, and bring upon ourſelves a premature death.

Let us, however, inquire what the ſcriptures ſay of faſting. The ordinances of religion enjoined the Iſraelites in the Old Teſtament were very ſtrict: yet we find, that they had but one faſt day appointed them in the whole year. This was the great day of atonement, on which they were to mourn, and appear as ſinners. Were faſting ſuch a neceſſary act of religion as it is deemed by ſome, it would in all probability have been oftener preſcribed the Jews: for one day in the year is almoſt equivalent to none. The other holydays and ſabbaths of that people were, as is well known, days of feaſting and joy. In later times, the Iſraelites, willing to do more in reſpect to faſting than God had commanded them, eſtabliſhed other faſt days. But on this head God declared by his prophet Iſaiah, chap. lviii. 6, 7. that the faſts acceptable to him were when a man reduced himſelf to want by the reſtoration of goods unrighteouſly obtained, or when he abated ſomewhat of his uſual proportion of food to aſſiſt thoſe who were more poor and neceſſitous than himſelf, and to prevent the hungry and needy from periſhing. Here no faſts are ſpoken of for which particular days were ſet apart, but ſuch as a benevolent and compaſſionate man would exerciſe whenever he ſaw another oppreſſed by want. In the New Teſtament we find a remarkable obſervation of Chriſt on faſting, Matt. ix. 14. whence it appears, that the Phariſees, and the diſciples of John faſted, but the diſciples of Jeſus faſted not. Chriſt ſaid, that his diſciples were to be conſidered as children of the bride chamber whilſt he was with them, and conſequently, that their faſting then would be as improper as faſting at the celebration of a nuptial ceremony: but, as faſting was a mark of ſorrow and mourning, they would faſt, when he was taken from them, and they mourned his abſence. The meaning of his words is; when a man is ſorrowful, and cannot eat for grief he may faſt; but if he have not this reaſon for faſting it is unneceſſary for him thus to chaſten himſelf. Inſtances of exemplary perſons who have faſted have been adduced from the Acts of the Apoſtles, xiii. 2. 1 Cor. vii.

vii. 7. as proofs of the neceſſity of religious faſting. But it is not our duty to faſt becauſe Paul faſted; for Paul performed many other acts of devotion which it is not incumbent on us to imitate. Thus he took the Nazarites' vow, and permitted Timothy to be circumciſed. Both theſe he did in compliance with the cuſtoms of the Jews, and was juſtified by the particular circumſtances in which he ſtood. To us, however, the whole of the Levitical law is annulled, and were we to do what Paul did in circumſtances totally different, we ſhould not be equally excuſable. Beſides, he ſays expreſsly, 1 Cor. vii. 6. that he gives not a commandment, but a permiſſion. Chriſt himſelf has no where preſcribed faſting. In a paſſage often cited, 1 Cor. ix. 25, 27. faſting properly ſo called is not ſpoken of, but merely an abſtinence from certain meats, the indulging in which was deemed ſinful, to avoid giving offence to the weaker brethren.

I admit, however, that there are a few obſcure paſſages in the New Teſtament, which may be adduced in favour of the propriety, if not of the neceſſity of religious faſting. Of theſe are the words of Chriſt, Matt. xvii. 21. "this kind goeth not out but by prayer and faſting:" ſpoken of the caſting a devil out of a lunatic youth. The diſciples of our Lord had been unable to caſt him out, and on their aſking Jeſus the reaſon of this, he aſſigns the want of faith as the general cauſe, but alſo adds, that devils of this kind were not to be caſt out but by faſting and prayer. Jeſus, however, caſt out this devil without prayer or faſting, but merely by rebuking him: thus faſting and prayer were neceſſary only for his diſciples, probably as being neceſſary to excite and fortify that faith which was neceſſary to the performance of that miracle. The whole paſſage, however, is very obſcure, and I know of no commentator who has hitherto explained it ſufficiently. Still thus much is clear, that, at moſt, faſting is here recommended as a mean to effect a miracle, and produce a faith capable of working it, and conſequently cannot be required of thoſe who have no power to work miracles. When Chriſt, and the apoſtle Paul, occaſionally give ſome rules for the obſervance of faſts, and how they might be better performed than was commonly done, we may preſume that theſe religious ceremonies, like others then practiſed by the people amongſt whom they were, and which were not poſitively to be rejected, were rather permitted than enjoined, and that what is ſaid relates only to ſome open abuſes of them.

The monachal and aſcetic opinion of our author reſpecting celibacy ſtill deſerves to be examined. He ſeems to conjecture, that whilſt man remained in paradiſe in a ſtate of innocence, the human race was propagated in a manner different from what it now is. This conjecture, however, which was entertained by the convulſionaries, and other fanatics, has no foundation in the nature or frame of man, or in the Moſaic account of his origin. Moſes relates the appointment of marriage, the increaſe of the human ſpecies to be effected by it, and the bleſſing given by God to the firſt pair, before he mentions the fall of man. But this fall, however important and extenſive we may

ſuppoſe its conſequences to have been, could not have occaſioned ſuch an alteration in the eſſential frame of man, as to produce in him parts which he had not previous to it, or to change the functions of thoſe which he had. Before man had expoſed himſelf to moral depravity, his natural inclinations, no doubt, were more moderate, more obedient to reaſon, and more ſubſervient to the ends for which they were implanted: but it is not credible, that they were altogether wanting, and that the innocent pleaſure attending a due ſatisfaction of them was denied; neither have we the leaſt foundation for ſuch a ſuppoſition. Analogy, from the conſideration of animals in nature reſembling man, teaches us the contrary. Theſe, which never fell, would unqueſtionably have been propagated in the paradiſiacal ſtate as well as in the preſent. The immortality poſſeſſed by man in a ſtate of innocence could no more render the propagation of the ſpecies unneceſſary, than that immortality promiſed us in a future ſtate, where we ſhall be liable to no decadency. Had that been the caſe, the Creator muſt have produced at once all the human race that were ever to inhabit the earth. This, however, would not have been conſonant to that benevolent purpoſe which Paul holds out to our notice, namely, that all men are of one blood, that by the manner of their origin and propagation they might all be connected together, and be brothers and ſiſters.

PROP. CLVIII. p. 457.

On the Lawfulneſs of ſtudying the Polite Arts.

The ſentence of our author on the polite arts, that they are ſcarcely to be allowed, except when employed to religious purpoſes, ſeems to be carried too far, at leaſt if it be his meaning, that theſe arts are to be reprobated, unleſs immediately dedicated to religion. How many inſtructive, uſeful, and edifying works of taſte muſt then vaniſh! The didactic poems of philoſophy, the inſtructive fables of an Æſop, hiſtorical pictures, deſcriptions of the works of nature, landſcapes, and gay, animating and pleaſing muſic, muſt all fall together. Such an unreaſonable and ſevere judgment, however, I cannot aſcribe to our author. Muſt he not have conſidered that a man could not dedicate his talents to religion with any ſucceſs, unleſs he had previouſly exerciſed them on lighter ſubjects? and that it would be neceſſary for him to read and ſtudy the beſt works of the ancients and moderns, few of which are confined to religion, in order to form his mind, obtain a juſt, nice, and ſolid taſte, and acquire a capacity of expreſſing himſelf properly, clearly, accurately, ſmoothly and nobly? Muſt he not have known how the ſtudy of the polite arts increaſes our knowledge of the human heart, and unlocks the paſſages to its moſt ſecret receſſes? And how neceſſary, or at leaſt uſeful it is, to enter the road to philoſophy through the gate of the fine arts?

Finally,

Finally, muſt he not have reflected, that to underſtand and excel in ſacred poetry, a man muſt be no ſtranger to the other kinds of it, or to its ſiſter arts? I will rather ſuppoſe that, as it frequently happens with the zealous, led away by his juſt indignation againſt the immoral abuſes of the polite arts, of which the beſt heads have been too frequently guilty, he has expreſſed himſelf ſomewhat too looſely and incautiouſly. I am far from defending againſt him the cauſe of dilettanti, who, by their labours in the polite arts, excite irreligious levity, recommend to us the ſatisfaction of our ſenſual deſires as our ſupreme good, and the great end of our exiſtence, and pourtray the pleaſures of love and debauchery with a too ſeducing pencil. Still I cannot perſuade myſelf that all images of theſe pleaſures are abſolutely immoral and unallowable: rather, in my opinion, muſt they be conſidered as permiſſible, whilſt the pleaſures of the ſenſes are painted only in ſuch a degree and manner as they are innocent, and ennobled by being allied to moral purpoſes; and in ſuch colours only as pleaſe the imagination, and exalt the moral ſenſe, without ſeducing the heart. I muſt confeſs, that a good compoſition, under ſuch reſtraints, would be no eaſy work, as the fear of being immoral would be too liable to occaſion a deficiency of intereſt; and on the other hand, to avoid leaving the heart cold and unmoved, morality might be ſacrificed to the deſire of giving delight. Extreme circumſpection, therefore, muſt be recommended to the young artiſt, if he would not lay the foundations of repentance in his more ſerious and riper age. I ſay, to the young artiſt, as in general this doubtful employment of the fine arts may perhaps be pardonable in the gayety of youth, as a preliminary to more uſeful and ſerious compoſitions: but it is highly improper at leaſt, to uſe no harſher term, when old men and gray-beards continue to dedicate their talents to Bacchus and Venus, and, with one foot in the grave, indulge in the frolicſomeneſs of youth. A grey-headed Anacreon amongſt chriſtians, however we may admire the heathen bard, is a ſtrange and ſhocking phænomenon.

PROP. CLXVI. p. 472.

On the pure Love of God.

It appears, from the preceding propoſition, as well as from other parts of his work, that Hartley is a defender of the pure love of God, which ſo many have diſputed, and which moſt moraliſts have baniſhed to the kingdom of chimeras. He not only maintains its poſſibility, but holds it up, with its adjunct ſelf-annihilation, as the laſt point of perfection, and the ſummit of happineſs to all rational beings. That he may not be too precipitately condemned, and claſſed with thoſe enthuſiaſts, whoſe defences of the point he maintains have met with no favourable reception, it will be neceſſary, to exhibit his explanation of the nature of ſelf-annihilation, and the pure love of God,

God, and the manner in which they are produced. For this purpoſe I will endeavour to collect the ſcattered lights appearing here and there in his work, particularly in his theory of aſſociation. The following conſiderations include what he has ſaid of moſt importance on the ſubject, and are calculated to elucidate his ideas.

All our inclinations and exertions, as ſoon as we become conſcious of ſelf, begin with a view to this ſelf: and, indeed, whilſt we are merely ſenſitive, they ariſe from a ſenſual ſelf-intereſt. When we have once received pleaſing and unpleaſing perceptions, from the impreſſions made by objects on our ſenſes, we deſire the return of the former, and dread the return of the latter. So long as we experience the pleaſures and pains of ſenſe alone, and, in conſequence of this experience, endeavour to reproduce or avoid them, it is ſenſual ſelf-intereſt merely that excites us to action. When by degrees we become acquainted with higher and nobler pleaſures, we in like manner deſire and ſeek a repetition of thoſe pleaſures; and then, as our author obſerves, we ſubſtitute a more refined ſelf-intereſt, inſtead of that merely ſenſual, with which we began. If, from all the pleaſures we have hitherto enjoyed, we collect a general idea of happineſs, without confining ourſelves to the deſire of one particular kind of pleaſure, and bend all our deſires and endeavours to this general happineſs, we act from a rational ſelf-intereſt. But ſelf-intereſt is ever the firſt motive of our exertions, inaſmuch as whatever we deſire, we firſt deſire with a view to ſelf, and as the means of ſelf-ſatisfaction. Our deſires and endeavours are ſelf-intereſted alſo, ſo far as they are founded on objects that are pleaſing and deſirable to us only through the medium of ſelf, by means of which we became acquainted with them. If, however, an object pleaſe us of itſelf, and for its own ſake, without the leaſt view of any ſatisfaction to be expected from it to ourſelves; and if it be no longer conſidered as the means of pleaſure, but the poſſeſſion or enjoyment of it be an immediate ſatisfaction to us; the deſire thence ariſing is, according to Hartley, diſintereſted, and the love of the object pure love. Experience proves, that we are capable of loving and deſiring in this diſintereſted manner. A very obvious and remarkable example of this is given by our author, with regard to the love of money, in the former part of his work, containing the hiſtory of aſſociation, which example we ſhall by and by make uſe of, to elucidate our ſubject. Unqueſtionably, too, there are ſtill more noble inſtances of diſintereſted love. From the foregoing definitions of ſelf-intereſt and diſintereſtedneſs, how can we deem the love an affectionate mother bears to a young, helpleſs, and ſick child, ſelf-intereſt, when to nurſe and watch over him ſhe forgets herſelf, regardleſs of her own eaſe, convenience, and health, nay frequently ſacrificing her life, and, if death free her from the toilſome taſk, mourning as if bereft of all the joys of life. Certain, however, it is, that this diſintereſted love could only have originated from conſiderations of ſelf, and that it was ſelfiſh before it was diſintereſted.

The laws of aſſociation explain how this remarkable converſion of ſelf-intereſted deſires and inclinations into diſintereſted ones is effected, in the following manner. When

When deſire is aſſociated for a ſufficient length of time with an object, by means of ſome pleaſure, or ſelf-ſatisfaction, which it procures, and the object, remaining the ſame, gives us various pleaſures, and affords us ſatisfaction in many different ways, the deſire is united with the object in ſuch a manner, that, after repeated aſſociations, the intervention of the idea of pleaſure, which firſt made the object deſirable, becomes leſs and leſs neceſſary to produce the deſire, in time ſuperfluous, and finally unheeded, ſo that in many caſes it is no longer perceived, or ſuppoſed, to be the medium which unites the deſire with the object. This may be explained by the diſintereſted love of money, which actually takes place in the miſer. The various advantages, benefits, and pleaſures, which he promiſed himſelf from the poſſeſſion of money, firſt make it pleaſing to him, and an object of deſire. The more he learns to know and value thoſe advantages, benefits, and pleaſures that gold can procure to its poſſeſſors, and the more he is convinced, that it is indiſpenſably neceſſary, and at the ſame time ſufficient to procure them, the more eagerly muſt he covet it, and the higher muſt he prize it. When he thinks of any advantage, ſatisfaction, or enjoyment, he thinks alſo of money, as the only means of procuring him the object of his deſires, and as the exponent of all his pleaſures.

Theſe pleaſures are various, and the advantages which money will procure him are various, but the money conſtantly preſents itſelf to his mind at every view of them. The idea of money continually recurring, and thence becoming more forcible, weakens, obſcures, and at length ſuppreſſes thoſe ideas, and original deſires, from which the love of money itſelf aroſe. He now ceaſes to value gold as the means of obtaining other good, and his deſire is attached immediately to the gold itſelf: he loves it as a good, without any diſtinct view of the advantages it will procure him, and thus his ſelf-intereſted love of money is gradually converted into a diſintereſted one.

Juſt ſo is it in the before-mentioned caſe of a mother's diſintereſted love to her child. This love firſt ariſes from ſelfiſh conſiderations, and from various references to ſelf. The mother loves her child from conſidering him as a part of herſelf: ſhe values him on account of the pains, troubles, and cares he has coſt her. The pleaſing proſpect of the gratitude and love with which he will one day repay her maternal affection, and the hope that he will be an honour to her, increaſe her inclination toward him. This inclination at length gains a prepollence over every other, as the accompliſhment of all her wiſhes and deſires can only be expected through this child, and ſhe can figure to herſelf no pleaſure into which the idea of her beloved child does not enter. Thus this conſtant idea ſuppreſſes every other, and occupies the whole of the mother's mind. When arrived at this point, ſhe loves the child without reflecting on any ſelf-ſatisfaction, or rather a view to ſelf is no longer neceſſary to her love of her child. If he be torn from her, ſhe feels a fearful void in her heart; and fancies ſhe has loſt her all, as indeed he was all to her.

What

What has been ſaid will, I hope, prove ſufficient to give the reader a clear conception of the manner in which a ſelf-intereſted deſire is converted into a diſintereſted one. The whole depends on its being admitted as a fact, that when one idea compriſes in itſelf ſeveral others, accompanies each of them, and is frequently aſſociated with each as its cauſe, ſource, or effective means, that one idea gradually obſcures the others, and ultimately ſo far ſuppreſſes them, that we are no longer conſcious of their intervention, but immediately paſs to the ſingle one. To illuſtrate this, our author inſtances the high degree of ſelfiſhneſs of thoſe who have always found the pleaſure they hoped for and expected in the completion of their deſires. He ſuppoſes, that ſuch perſons firſt acquire this high degree of ſelfiſhneſs, or the pleaſure which they aſſociate with the accompliſhment of their wiſhes, and on the other hand the pain they feel when they are diſappointed, from their having always obtained the pleaſure they ſought when their wiſhes have been fulfilled. Thus the accompliſhment of their wiſhes has become aſſociated with every pleaſurable enjoyment. Firſt, it is agreeable to them only on account of the pleaſure it procures: but by degrees the chain that links them together is over-looked, and the ſatisfaction of their wiſhes becomes immediately pleaſing, and an indiſpenſable requiſite, without any view to the pleaſure it will procure. That this is actually the caſe, and that men who always find pleaſure in the accompliſhment of their wiſhes are eminently ſelfiſh, is evident from this, that nothing conduces ſo much to the cure of this vice, as the being convinced by repeated experience, that the fulfilment of our deſires will not afford us the pleaſure we hope, but rather tend to make us unhappy.

This will ſerve in ſome meaſure to decide the diſpute amongſt philoſophers, whether all our deſires and inclinations be ſelfiſh, or there be ſome perfectly diſintereſted ones. In reality our deſires muſt firſt be ſelf-intereſted. If an object produce in us a pleaſing, or unpleaſing, ſenſation, we immediately deſire its continuance and repetition in the former caſe, and its ceſſation and abſence in the latter, for our own ſakes: we value it only ſo far as it gives us pleaſure. Thus the child's love to its mother is originally founded on the pleaſing taſte of the milk with which ſhe nouriſhes it. On the other hand, an object is only ſo far odious to us, as it is the cauſe of unpleaſing ſenſations. We love what has given us pleaſure, on account of the enjoyment and pleaſure we again expect from it: or our inclination is at firſt ſelf-intereſted, and connected with ſelf-ſatisfaction. If they who aſſert, that all the inclinations of human nature are ſelf-intereſted, mean nothing more than this, they are perfectly right: but if they would maintain that this retroſpect to ſelf, this motive of our inclinations and endeavours after an object, derived from ſelf-ſatisfaction, muſt always continue, and ever be preſent to the mind, they contradict all experience, and the moſt accurate obſervations of the human intellect. They err, if they deny that an object may gradually become immediately, and for its own ſake, pleaſing and deſirable. We have ſeen that this may happen, and that in ſome inſtances it muſt neceſſarily be the caſe. This arrives in the ſame way as, according to the foregoing theory of aſſociation in general all original automatic

automatic motions are changed into voluntary ones, and theſe again into automatic ones of the ſecond order. Thus all our deſires are originally automatic, and ariſe from a bodily want, or appetite. When this want is ſatisfied, and this appetite appeaſed, a pleaſing ſenſation enſues. As ſoon as we become conſcious of this, we are no longer impelled to ſatisfy the appetite in the former involuntary manner, but from a deſire of the pleaſure we have experienced; and then we become ſelf-intereſted. When a certain object, however, has frequently given us pleaſure, it becomes immediately pleaſing to us, and the inclination to it again ſo far automatic, that it ariſes in us without the intervention of the idea of the pleaſure procured us. Thus when the object is deſired, loved, or ſought after, for its own ſake, a diſintereſted inclination, or pure love, takes place. This diſintereſted love a man may feel, not only for what is good, but for what is bad. In this caſe alſo, the inclination is changed from intereſted to diſintereſted gradually, and in the way we have related. To wiſh, or occaſion, ill to our fellow-creatures, merely for the ſake of doing them harm, is no original propenſity of our nature; and ſaint Auguſtin is greatly miſtaken, when he infers this from the envious looks twin brothers give each other. Their malice is no more diſintereſted, than that of two dogs gnawing the ſame bone. But experience ſufficiently evinces that malevolent inclinations may become diſintereſted, when a man has long accuſtomed himſelf to aſſociate his pleaſure and ſatisfaction with the miſcarriage of others, and his unhappineſs with their ſucceſs. Here, in like manner, the connecting link is unheeded; their unhappineſs is pleaſing to him, as their happineſs is painful, in itſelf, and for its own ſake, and a pure hatred, and diſintereſted envy, take root in his heart. The blood-thirſty Domitian was no more born with an original propenſity to murder than other men. But thinking himſelf no other way ſecure, and his perturbed fancy preſenting nothing to his mind but naked poniards, he was impelled to murder by fear and ſuſpicion, like moſt of the Roman tyrants, as the means of ſelf-preſervation, till, by degrees, the ſhedding of blood became a pleaſing and deſirable object to him, without any view to the ſecurity for which it was firſt ſought. The groans of the unhappy wretches whom he ſacrificed to his jealouſy and ſuſpicion were grateful to his ears, and murder was ſo neceſſary an amuſement, that, when he wanted other victims, he diverted himſelf with killing flies.

It is now time that we apply this to the pure love of God. Our author explains its origin thus. God is the fountain of all good, and conſequently is aſſociated in our minds with every perception of it, that is, with every pleaſing ſenſation: hence it follows, that the idea of God, and of the ways by which his goodneſs and bliſs are revealed, ultimately, ſuppreſſes and excludes every other, until, in the words of ſcripture, he becomes all in all.

An explanation of this ſhort ſentence, the expreſſion of which is ſomewhat lax, may not perhaps be diſagreeable to the reader. God is the fountain of all good. In this all true philoſophers agree with divines. But the ſenſe in which our author employs

theſe words is ſomewhat more exalted and expreſſive, than that which they commonly bear. According to him, God is the fountain of all good, ſo that not only what we, with our confined knowledge of good and evil, at preſent deem ſo, but every occurrence, change, and action, that takes place in the ſpiritual world, muſt be referred to him as its author. God is, according to him, the ſole agent, in the ſtricteſt ſenſe. All created ſpirits, without exception, are but accompliſhers of his infinitely benevolent will, and inſtruments to fulfil his purpoſes, that extend to all eternity. A living knowledge of this perfect dependency of all beings on the firſt eſſence, in whom thy live, and move, and have their being, by whoſe breath they are vivified, and by whoſe ſpirit they are animated, tends, in his opinion, moſt effectually to promote a conviction of the nothingneſs of ourſelves, and of all created beings, before God. But we do not properly acknowledge God as the fountain of all good, till we admit, when conſidering all his works and ordinances, what God himſelf ſaid at the creation, that all are good: and this, with him whoſe view is not confined to a ſingle point, like that of ſhort-ſighted man, but embraces all infinity, applies both to the preſent, and to eternity. Thus whatever God has ordained, or permitted, we muſt acknowledge to be good. That evil, which here diſtreſſes and perplexes us in various forms, would ceaſe to appear to us an evil, were our views enlarged, and its connections and effects laid open to our eyes. The mind, freed from its long illuſion, and perceiving all to be good, would be reſtored to the moſt perfect tranquillity, by the unexpected ſight. The way in which God leads his intelligent creatures to this happy knowledge, which now too frequently ſeems to us an endleſs labyrinth, would then appear the beſt and ſpeedieſt by which the goodneſs and bleſſedneſs of God could be revealed. Each knot that now ſhackles us would be unlooſed, every doubt and difficulty that now perplexes us would be removed: and in ſuch a manner, that we muſt acknowledge it worthy of the wiſdom and goodneſs of our Creator, and neceſſary and beneficial to ourſelves, that thoſe knots ſhould have been tied, and not ſooner looſed, and that thoſe doubts ſhould have perplexed us, without being removed at an earlier period. It is probable, that this joyful diſcovery, with the conviction of the univerſality of God's influence, would eminently and irreſiſtibly promote ſelf-annihilation, and the pure love of God. Did we merely diſcover, that every thing in general was good, and particularly ſo for ourſelves, without referring all to its only true ſource; did we make ourſelves partakers in the honour due to God alone, or attribute a part of it to any other creature; we ſhould ſet up ourſelves, or this too highly exalted creature, as the rivals of God, and the idols of our hearts, which would be an obſtacle to the pure love of God and ſelf-annihilation. On the contrary, were we to perceive and think of nothing good, but in connection with God, and aſſociated with the idea of him; and were we to conceive of every thing preſented to our minds as his work, and as an inſtance and manifeſtation of his goodneſs; it ſeems to be an unavoidable conſequence, that the idea of God, and of the proofs of his goodneſs, muſt ſuppreſs and exclude every other. Every good thing is an emanation from his goodneſs:

but

but theſe emanations are manifold and various. He, however, the living fountain of them, remains the ſame, and his idea is aſſociated with every thing that is good, beautiful, or excellent. Hence the connecting chain is overlooked, and God becomes immediately pleaſing to us, raviſhing us with a beauty, that unites in itſelf the ſplendour of all the various good and pleaſures for which we are indebted to him. Thus he becomes the immediate object of our ſatisfaction, deſire, and joy.

It requires no farther proof, that this conſequence muſt enſue, on the preceding ſuppoſition. We have taken an incontrovertible fact for the baſis of our argument, and from unqueſtionable experience may infer, that what regularly happens, on a ſlighter occaſion, muſt inevitably follow on an infinitely ſtronger, and under circumſtances far more favourable. If the miſer can ſay to a heap of gold, thou art my god: and this his god occupy his whole heart, though, notwithſtanding his experience of the great and extenſive utility of money, many oppoſite facts concur to prove that it is not always uſeful and indiſpenſable, and though he muſt have many aſſociations which tend to leſſen his affection for it, to counterbalance thoſe which knit his heart to it: muſt not the mind that ſees all its wants and wiſhes ſatisfied through God, and through him alone, and that can think of nothing worthy of its deſire, love, or admiration, without the idea of God being preſent with it, be penetrated with continual pleaſing perceptions iſſuing on all ſides from this only ſource? muſt not this grand idea, recurring with every enjoyment, and abſorbing every excellence, become by degrees ſo intimately united with all its pleaſures, as to model all its powers and faculties?

The following obſervation will more clearly ſhew how fully we are juſtified, in this inſtance, in carrying our inference from the leſs to the greater. Experience teaches us that money, when once it becomes the immediate object of the miſer's deſire, is in a great meaſure uſeleſs to him; and, whilſt he fears the loſs of it too much to employ it for any purpoſe, it is incapable of procuring him thoſe advantages, conveniencies, and pleaſures, for the ſake of which he firſt deſired wealth. His paſſion, when it becomes diſintereſted, will in a great meaſure, if not wholly, diſpenſe with what ſerved to nouriſh it, without the leaſt decay. Still, however, it is clear, that, could his riches procure him the enjoyment of thoſe pleaſures on account of which they were firſt prized and deſired by him, without any fear of the loſs or diminution of them, the conſtant enjoyment of them would cheriſh and fortify his paſſion. Now this will really be the caſe with the happy mind that is filled with the pure love of God: for, as new gratifications inceſſantly ariſe from the divine benevolence, its love will never want food, and conſequently the aſſociations by which that love was generated will be continually renewed, refreſhed, and ſtrengthened. The conſequence of this will be, that, to ſuch minds, God, as our author expreſſes it in the words of ſcripture, will be all in all. From what has been ſaid his meaning is clear: namely, that God will be the ſupreme, ſole, and ſufficient good; that the idea of him will ſupply the place of every other pleaſing idea, and procure all the ſatisfaction which had hitherto been

but imperfectly obtained by means of other objects, in an infinitely more ample degree. Whether this be actually the meaning of St. Paul, who makes uſe of this expreſſion 1 Cor. xv. 28. will admit of a doubt. Probably he employed it in a leſs extenſive ſenſe. Probably he meant nothing more, than that, after Chriſt had ſubjected all things, thus attaining the end of his office of mediator, and fulfilling the purpoſe of his delegated authority, every thing ſhould be put under the dominion of the Father, and thus God become the immediate ruler of the ſpiritual world. To this expoſition it may be objected, firſt, that through the ſubjection of all intelligent beings accompliſhed by Jeſus, which is obviouſly related as preparatory to the immediate dominion to be aſſumed by God, ſuch a perfection and exaltation of the creatures is to be underſtood as will render them fit and worthy to be immediately governed by God, and conſequently not requiring an intermediate ruler. Secondly, that a forcible ſubjection of refractory and unamended hearts, a ſubjection in which the power, not the goodneſs of the ſovereign would be diſplayed and experienced, cannot here be meant. Such a ſubjection and dominion, effected and exerciſed by power alone, is contradictory to the nature of the kingdom of Chriſt, who, as he himſelf declares, reigns through truth, over the hearts of willing ſubjects. Without that all men are ſubject to him, and it muſt be deemed a very defective explanation, to ſuppoſe this ſubjection to mean nothing more, than that Jeſus would bring his former enemies to a knowledge of his power. Would this render them more fit or worthy to be under the immediate dominion of God? Here the connection of the apoſtle's propoſition ſeems to fail. Moſt probably the paſſage in Philippians ii. 9—11. in which a ſimilar ſubjection is ſpoken of, muſt be conſidered as a parallel one. On this ſuppoſition, the ſenſe of the words, that God may be all in all, will be this, God will reign immediately, that is, the ſubjects which Jeſus Chriſt ſhall put under his dominion will be bleſſed by his immediate influence: he will be their ſupreme and only good, their all.

The queſtion that now remains to be anſwered is, when can man attain ſuch a pure love of God? Is he capable of it in this life? or only in a future ſtate? To this our author anſwers, and his anſwer is ſupported by experience, that, according to the preſent nature of man, and the ſtate of the world in which he lives, extremely few, if any, approach the borders of this pure love. Far the greater part of mankind ſuffer themſelves to be guided by the groſſeſt ſelf-intereſt, which leads them to deſire, and endeavour after, the pleaſures of ſenſation, of imagination, and of ambition alone. How ſmall the number of thoſe who acquire a taſte for the exalted pleaſures of ſympathy, theopathy, and the moral ſenſe; and who are capable of that refined ſelf-intereſt, which leads them to ſeek thoſe nobler pleaſures! Farther, how extremely few of theſe deem the pleaſures of the three latter claſſes ſo important as to bend their greateſt, if not their only endeavours, to the attainment of them, and to ſeek to procure them only from the impulſe of refined and rational ſelf-intereſt! But if a man

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ſacrifice theſe two kinds of ſelf-intereſt to the pure love of God, nothing muſt appear good and deſirable to him but as far as it is connected with the Deity. The idea of this moſt benevolent and bleſſed being muſt be united with every object of his wiſhes, and the perfect love of him muſt exclude all fear: for whilſt fear is in the ſlighteſt degree aſſociated with the idea of God, the mind will be incapable of ſuffering him fully to reign in it. But we are prevented from attaining this perfect exemption from fear, by the inſuperable ſenſe of our own weakneſs, wants, and failings, from which, it is true, we are capable of freeing ourſelves more and more, though never entirely, if we employ, with unabating ardour, the means preſcribed by religion, for the improvement and confirmation of our faith, which will make it continually approach to the deſired ſtandard. To theſe means prayer particularly belongs, by which a lively idea of the inviſible God is kept preſent, and frequently recalled to our minds, and we are led to an attentive contemplation of his ways, his word, and his works, more eſpecially of thoſe which we ourſelves have experienced. Hence we acquire a diſpoſition to perceive God in all things, and to ſee and feel how kind and benevolent he is on every occaſion; and take pleaſure in loving moral good, and hating moral evil, for his ſake.

It is going a great way, when a man brings himſelf to this; even though conſiderations of ſelf-intereſt, a nobler and more refined ſelf-intereſt indeed, are intermingled with it. This ſeems to be the utmoſt height we can attain in this life. Indeed, from the frailty inherent in us, and the inſufficiency of our virtue, it may be perilous for us anxiouſly to ſtrive after greater purity, and aſpire to nothing leſs than a perfect delight in God unalloyed by fear. Such an attempt would be too apt to lead us into the errors of fanaticiſm. Here we ought to remark, that perfect ſelf-annihilation, and the pure love of God, are very wiſely conſidered by our author as a point which man can never attain, though he may continually approach it; like ſurd numbers, which we may continually approximate, though we can never exactly expreſs them. Eternity itſelf would be too ſhort for the ſpirits of the righteous to arrive at the end, or to attain a point from which they could proceed no further. But our author does not limit this progreſſion, or approximation to the pure love of God, to a few intelligent beings, or a ſingle kind: in his opinion, it is the common lot of all, without exception. It is obvious, that this muſt naturally follow, from his principles, and the doctrine of aſſociation. For if creatures, whoſe thoughts and wills are governed by the laws of aſſociation, be expoſed to the ſame impreſſions and experiences, for an indefinite time, their modes of thinking and willing muſt continually become more like each other, and it ſeems to be impoſſible, that the difference between them ſhould increaſe, or even remain the ſame. As the ſame nature is common to them all, ſimilar circumſtances muſt produce in all ſimilar effects. This cannot be denied, if we grant our author the following ſuppoſitions.

In the firſt place, he ſuppoſes, that, in the various ſcenes and viciſſitudes which men paſs through in this life, all the aſſociations by which they figured to themſelves as good what was detrimental, deſiring and taking pleaſure in it, as well as all thoſe by which they were led to ſhun as pernicious and hate what was good and deſirable, are corrected by means of experiences in ſome meaſure painful. Secondly, that the aſſociations which induce us to expect what is actually good from any created thing, and thus to attach our deſires and love to ſuch a thing, or to ſeek ſatisfaction and happineſs independent of God, are in the ſame manner disjoined and annihilated by unexpected and oppoſite conſequences. Thirdly, that new aſſociations more juſt, and more perfect, are formed, when our former pleaſures are unexpectedly united with their conſequent pains, and our former pains with their conſequent pleaſures. If theſe ſuppoſitions be admitted, we are juſtified in drawing the following inferences.

Firſt, By following this better way we acquire knowledge, and a love of what is truly good, in the ſame manner as we were before made unwiſe and unhappy by falſe aſſociations.

Secondly, As all true good is united and concentred in God, we muſt ultimately know this, and fly to him in our ſearch after happineſs: and as we experience all good without him to be defective, unſtable, and inſufficient, we ſhall finally ſatiate in him our thirſt after true good, and after permanent and increaſing ſatisfaction. If we admit the laws of aſſociation, and ſuch a mechaniſm of the human mind as is conformable to it, this ſeems to be the natural progreſs of every rational being. It muſt be confeſſed, that, in every given point of this progreſs, conſidered ſeparately, we muſt admit a great difference with reſpect to the extent of the way that each has paſſed: but it cannot be denied, that every one approaches the ſame point, whether by a ſhorter, a longer, a ſtraighter, or a more indirect way. No true aberration, and ſtill leſs a retrogreſſion *in infinitum* can take place: every deviation is merely apparent, and happens only to remove ſome obſtacle. This, however, is ſo far valid only, as the operations of the mind are not diſturbed by the interpoſition of any ſuperior power, or as the being that ſtrives after perfection is not ſupernaturally and forcibly obſtructed or repelled in its progreſs.

It remains to be ſhewn, that this approximation to ſelf-annihilation, and the pure love of God, is alſo an approximation to the higheſt perfection and happineſs of rational beings. It is already clear, from what has been ſaid, that they muſt always be approaching this point, from the frame of their natures. We infer too, that what is a natural and inevitable conſequence of our nature, when we are placed in ſuitable circumſtances and a convenient ſituation, and what every thing tends and impels us to, muſt be the proper object of our active powers, and the ſcope of our wiſhes and endeavours; and when we aim at this object, and in proportion as we approach it, we ſtrive after the proper perfection of our nature. Thus the nearer we are to it, the greater is our perfection. From what has already been obſerved, it is evident, that this object can be no other

other than the Deity himſelf; and this aim, nothing but the pure love of God. Every other object is unſatisfactory: every other aim is placed too low for the courſe we have to run, and is inſufficient to content us. On the other hand, if we make God himſelf the immediate object of our deſires, and ſtrive after a pure love of him, perfect and durable bliſs, as far as it can be the lot of a finite creature, muſt be our portion; or rather, in proportion as we approach to a pure love of God, we ſhall alſo approach pure felicity: for the good which we love and deſire will be pure and unalloyed. We love the Father of light, in whom there is no viciſſitude of light and darkneſs. His good is unbounded, and his happineſs uncreated. Thus the good we ſeek and expect in him is not defective, inſufficient, or limited, but ever new, uncreated, and uncloying: he is infinity.

Let us not forget to obſerve, on this occaſion, that former defenders of the pure love of God, a Fenelon and a Madame Guyon, if they had not found fewer antagoniſts, would have been treated with more reſpect by them, had they known, like our author, how to give a clear explanation of it, deduce it from fundamental laws of the human mind, and illuſtrate it from analogy and experience.

PROP. CLXXV. p. 511.

On Symbolical Books.

UNDER the title of the rule of faith it was natural to expect an expoſition of thoſe doctrines, the knowledge of which, with aſſent to them, our author conſiders as neceſſary to excite and oblige men to purſue the preceding rule of life. It is evident, that, in his opinion, a belief of certain doctrines is only ſo far neceſſary and valuable as it promotes effective religion, or the performance of our duties. He contents himſelf, however, with ſome admonitions to his readers concerning the precepts of natural religion beforementioned, and only requires them to unite with their belief in theſe precepts faith in the holy ſcriptures, as a complete and ſufficient ſummary of the divine doctrines of ſalvation. He is no friend to human articles or creeds, that are framed to ſerve, together with the Bible, as ſteadfaſt rules of faith and doctrine; deeming it neither neceſſary, nor profitable, to extract any rule of faith from the Bible, and eſtabliſh it under the form of a ſymbolical writing.

So many learned inquiries have been made and publiſhed of late years, reſpecting the neceſſity, juſtice, utility, and value of ſymbolical books, both in England and Germany, that what I have to ſay on the ſubject muſt appear in ſome meaſure ſuperfluous: but a ſubject ſo extenſive and involved is not eaſily exhauſted. He that wiſhes to have a complete view of it may conſult Blackburne's *Confeſſional*, and the various controverſial writings to which that celebrated book has given birth. Of German publications Töllner's *Abhandlung über die ſymboliſchen Bücher*, and the writings of ſome of its late defenders and opponents, particularly deſerve notice. Still I may be

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permitted to make ſome remarks on the grounds on which Hartley oppoſes human articles of faith, which may tend to ſet them in a clearer light.

The defenders of ſymbolical writings muſt aſſert, or rather demonſtrate, that they are neceſſary and indiſpenſable, if they would manage their cauſe with ſucceſs. They muſt prove, that, in the preſent ſtate of the chriſtian world, the holy ſcriptures alone, without theſe ſupplements or authentic expoſitions, are inſufficient to attain the great purpoſe for which God gave them to us, namely, that we ſhould be made wiſe to ſalvation. They muſt prove, that theſe creeds are more powerful inſtruments againſt the doubts, ignorance, or wickedneſs of thoſe who go aſtray, than the holy ſcriptures; or that the ſenſe of the words of Jeſus, and his apoſtles, may be more clearly and unequivocally laid down in unſcriptural expreſſions, than in thoſe employed by Jeſus, and the ſacred writers. Finally, they muſt prove, that, without human articles of faith, ſuch a variety of opinions, and difference of religion, muſt ariſe, as would render the uniformity of teaching neceſſary to general edification utterly impoſſible. All this muſt be proved, before we can appeal to the right of the church as a community, authorizing it to eſtabliſh opinions for the whole body according to its own pleaſure, and to exclude, thoſe from the ſociety who refuſe to ſubmit to them, in defence of the juſtice and obligatory nature of human ordinances in religious matters. No ſociety can poſſeſs a right to make uſeleſs ordinances, or, as the caſe would be here, pernicious ones, contrary to the purpoſes for which it was eſtabliſhed, and derogatory to the reſpect due to its only lawful maſter and legiſlator. No ſociety can poſſeſs a right to exclude from a participation of its benefits thoſe, who, before the eſtabliſhment of ſuch uſeleſs or injurious ordinances, were worthy members of it, for refuſing to ſubſcribe to the new articles, whilſt they abide by the laws of their maſter. Thus the indiſpenſableneſs of ſymbolical books is the grand point. If this can be ſet aſide, we muſt reject them, on account of the diſadvantages that muſt enſue from their being eſtabliſhed, the moſt important of which is the prevention of private and free inquiry into religion. On the other hand, if this can be ſupported, the ratification of ſymbolical books will not ceaſe to be an evil, it is true, but it will be a neceſſary evil.

Againſt the neceſſity of human articles of faith, our author objects, amongſt other things, that men may underſtand and interpret them in as various ways as they may the ſcriptures themſelves, and raiſe as endleſs diſputes about their true ſenſe. On this point he appeals to experience, which is here unqueſtionably a much ſurer guide than reaſoning *a priori*. In the Church of England experience clearly ſhews, that, though the thirty-nine articles were eſtabliſhed for the purpoſe of preventing difference of opinion, this end has not been in the ſmalleſt degree promoted by them. One of the ſtrongeſt proofs of this is, that biſhop Burnet, in his learned expoſition of thoſe articles, endeavours ſo to explain them, that people who entertain very different opinions with reſpect to their purport may receive and ſubſcribe them. Probably a ſimilar commentary might be written on the articles of faith of every proteſtant church, with

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ſimilar effect. If it be ſaid, that ſuch an expoſition is nothing more than a forced and ambiguous interpretation, and that its invalidity may be ſhewn, and the true ſenſe of the ſymbolical writings reſtored and proved, by the rules of ſound criticiſm; I would aſk, whether the obſcurities of the Biblical text might not in like manner be removed, and its true meaning eſtabliſhed on as clear and ſolid proofs, at leaſt as far as reſpects the doctrines of the church, which are the proper ſubjects of ſymbolical writings? If ſymbolical books be not rendered uſeleſs as proofs, or for any other purpoſe, from their admitting of various interpretations, why ſhould the ſcriptures be ſo on that account? If this be aſſerted of the latter, it muſt equally hold good of the former; and as ſoon as a diſpute ariſes reſpecting their meaning, they become uſeleſs, and incapable of deciding any thing, and the ſenſe of the diſputed paſſage can only be determined by a new ſymbolical book.

But is it not apparent, from the compoſition and ſtyle of the Bible, compared with thoſe of ſymbolical books, that the former, written in common language, and a popular manner, muſt be more expoſed to ambiguous and indeterminate expreſſions than theſe, which are written ſyſtematically, in philoſophical language and order, and with logical preciſion? At the firſt view, this difference ſeems to give ſymbolical books an advantage over the ſcriptures; but, in my opinion, the contrary will appear, on a cloſer examination. In ſupport of this opinion much might be ſaid, but I muſt here confine myſelf to a few remarks. In the firſt place, I ſhall obſerve, that the inſtruction given us in the ſcriptures is, for the moſt part, conveyed to us in an hiſtorical manner, and is, on that account moſt clear and intelligible to every capacity. The doctrines of our religion are delivered in the hiſtory of our Saviour; and this hiſtory is the chriſtian's ſyſtem of inſtruction. Hiſtory is in itſelf more intelligible than any other ſpecies of compoſition, particularly if written with ſimplicity, in a natural order, and without embelliſhment. To underſtand the principal facts it relates, at leaſt, nothing more is neceſſary than a knowledge of the language in which it is written; and with a little attention I can diſcover the doctrines compriſed in thoſe facts, and founded on them, or thoſe occaſionally interſperſed amongſt them, with more certainty and facility than if they ſtood alone, unconnected with any circumſtances. The ſaying of Jeſus, for example, *I am the reſurrection and the life*, might admit of various explanations: but if we connect it with the awaking of one from the dead, on which occaſion it was ſpoken, no one can miſtake its true ſenſe, that does not wilfully ſhut his eyes againſt the light. The Epiſtles of the Apoſtles, it is true, want, in ſome degree, this advantage of the hiſtorical ſtyle: ſtill, however, they refer to the hiſtory of Jeſus and other facts, and as they elucidate theſe, thy are reciprocally illuſtrated by them. Beſides this, the apoſtolical epiſtles reſpect the ſituation, ſtate, and circumſtances of thoſe for whom they were intended, the particular complexion of the times in which they were written, and the relation in which the apoſtles ſtood to their proſelytes. Now all this is hiſtorical, and the more thoroughly the reader is acquainted with this hiſtorical part, the

fewer ambiguities will he find. Thus what the ſacred writings loſe in preciſion and accuracy from their popular ſtyle, their being hiſtorical will amply make up to the reader.

Let us farther obſerve, that a methodical and ſcientific delivery of doctrines is not always ſufficient to determine their meaning with preciſion, and prevent all poſſibility of a miſconſtruction. The language and method of the ſchools is advantageous only when the writer has a fundamental knowledge of the ſubject which he handles ſcientifically, when his inquiries have brought him to a clear and juſt idea of it, and when thoſe for whom he writes can follow the ſteps of his reaſoning, and enter fully into the ſubſtance of it with him. Where theſe requiſites are wanting, this rigid method, and philoſophical language, ſerve only to perplex both himſelf and his readers. The appearance of ſolidity will lead the writer to take his arbitrary notions, deduced from mere appearances, for the trueſt and beſt, and an artful combination of words, for a well-grounded concatenation of ideas, and of the ſubject itſelf; whilſt the reader, whether it be the fault of himſelf or the writer, racks his imagination to acquire clear and preciſe ideas in vain. If he could not be made to underſtand the ſubject, he might at leaſt acquire ſome uſeful notions of it, if it were delivered in familiar language, and common modes of expreſſion. That this is the general caſe with moſt, if not all writers of ſymbolical books, is evident from this, that they, for the moſt part, endeavouring to give rules how men ſhould think, or rather expreſs themſelves, on the myſteries of religion, and moſt abſtruſe philoſophical ſubtleties, intermingle with the popular the philoſophical method and language, which are in ſome meaſure unſuitable, to the extreme detriment of perſpicuity. How can their logical method contribute to preciſion, and ſecurity againſt miſtake, on ſubjects of which themſelves had no real and determinate idea, and which, according to their own confeſſion, were expreſſed in unintelligible words? Certainly it does nothing more than give them an appearance of having ſaid ſomething, when in fact they have ſaid nothing; and, if we would form any conceptions of the ſubject, we muſt lay aſide the language and diſtinctions of the ſchools, and have recourſe to the popular expreſſions of the ſcriptures themſelves. Frequently when theſe dogmatiſts would decide philoſophical queſtions, they confound the language of the ſchools with that of the ſcriptures; a fruitful ſource of error and perplexity. For the juſtice of this remark, we may refer the reader to a ſtriking example which Hartley gives in what he ſays on free-will: an example extremely applicable to the point in queſtion, and well calculated to illuſtrate it, as the queſtion concerning free-will, *de libero arbitrio*, and ſome ſubjects related to it, is very pointedly introduced into moſt, if not all confeſſions, and decided in the ambiguous manner remarked by Hartley.

For theſe and ſimilar reaſons, ambiguities and obſcurities muſt ariſe, though every poſſible precaution be taken to prevent them. Where there is no real and clear idea, that is, ſuch as we may diſcover from the apparent ſenſe, or from analogy, there is nothing that the expoſitor can comprehend, and he is liable to form different conceptions,

tions, whilſt he adheres to the eſtabliſhed language, and the expreſſions employed. When the writer does not underſtand what he means himſelf, he cannot expect that his readers ſhould. In all ſuch caſes ſymbolical books can only promote uniformity of expreſſion, not identity of notions and ſentiments; and the leaſt deviation from this uniformity of expreſſion, or the alteration of a ſingle word, will produce a diverſity of opinion: a ſufficient proof, that nothing clear and determinate has been impreſſed on the mind, and that terms of art have ſupplied the place of ideas. The unity thus promoted is like the peace of which Tacitus ſpeaks: *ubi ſolitudinem faciunt, pacem appellant.* We may go ſtill farther: not unfrequently the expreſſions of articles of faith are induſtriouſly contrived to be indeterminate and equivocal, to allow ſome difference of opinion, at leaſt in points conſidered as not abſolutely eſſential.

Finally, did ſymbolical writings expreſs ideas, and points of doctrine, with all due accuracy and preciſion, ſtill they would be no longer clear and determinate, than the philoſophical ſyſtem which they followed prevailed, and its language remained unaltered. Should this philoſophy, and this language, give way to a new ſyſtem, and a new phraſeology, obſcurity and ambiguity muſt enſue, and the words of the confeſſion would not convey the meaning of the compoſer, but a different, and frequently an oppoſite one. In confirmation of this, we have a ſtriking example in the word *preſence*, as it is uſed in the ſymbolical books of the Lutheran church, with reſpect to the body of Chriſt in the Lord's ſupper. When they were drawn up, probably, ſomething more was underſtood thereby than an effectual preſence, which the followers of Wolfe's philoſophy now conſider it to imply. This change of ideas has at leaſt occaſioned a conſiderable difference in the Lutheran doctrines reſpecting the Lord's ſupper; which difference appears ſo important to a celebrated divine, that he accuſes thoſe, who admit the preſence of Chriſt only according to Wolfe's idea, of ſeceding from the Lutheran church. But how is this opinion to be maintained and verified? Unqueſtionably on exegetical principles: for the grounds of the foregoing Lutheran tenet are as clear in the holy ſcriptures, as the tenet itſelf in the ſymbolical books. Cannot the learned inquirer, then, as clearly prove it from the former, as from the latter? Moſt aſſuredly, if he be impartial, and not obſtinately blind to the truth. Even ſuppoſing him to be prejudiced againſt the truth, will he be leſs ſo when he meets with it in ſymbolical books, than when he finds it in the ſcriptures? and conſequently ſee it more clearly, and with greater readineſs, in the former, than in the latter? Surely not, unleſs he acknowledge the ſymbolical books to be obligatory, and they have a power of compelling him to embrace their doctrines. If he but deem them of equal authority with the ſcriptures themſelves, and conſider it as neceſſary to conform his opinions to thoſe they deliver, as to thoſe contained in the ſcriptures, they will only be of equal weight with him.

If preciſe and definite forms be indiſpenſable to the maintenance of a neceſſary uniformity in teaching, why are they confined to the doctrines of belief, excluding thoſe

of morality? Hereſies and ſchiſms are not leſs poſſible in the latter, and are far more dangerous, as Dr. Töllner has well obſerved. The Bible does not preſent us with a regular ſyſtem of morality, any more than of faith. The duties, as well as the theory of chriſtianity, are delivered in popular language, and without art. Allegorical and hyperbolical modes of expreſſion, that ſeem to require an explanation, and more ſtrict definition, occur equally in both. Many of our Redeemer's precepts of morality, particularly in the ſermon on the mount, are delivered in very general terms, requiring to be explained with as much care, and conſideration of the concomitant and occaſional circumſtances, as doctrines of faith, if we wiſh not to apply them improperly. Such, for inſtance, are the precepts termed *conſilia evangelica*, on which we have enlarged in a preceding note. Clear as the literal meaning of theſe and other precepts may be, the application of them to particular caſes is attended with conſiderable difficulties: and as this application of them is neceſſary to be conſidered, for the inſtruction of chriſtians, and general edification, it ſhould ſeem, that a ſymbolical ſtandard would here be particularly conducive to orthodoxy. But let it be farther conſidered, that different opinions, or contradictions, between teachers on the ſubject of morality are far more obvious and ſhocking, and make a much ſtronger impreſſion on the minds of the hearers, than diſagreements in that part of chriſtianity, to determine which has been the chief aim of the ſymbolical books of all parties, namely theological hypotheſes. With reſpect to the latter, two teachers of the ſame communion may differ widely from each other in their doctrines, if the one do not announce his opinion in the moſt preciſe manner, for the declared purpoſe of oppoſing the other, without their diſagreement being ſuſpected by their hearers, to whom theſe ſpeculative notions are neither important nor comprehenſible, however weighty they may appear to the learned dogmatiſts: and even ſhould they ſuſpect it, it would intereſt them little, whilſt they conſidered, that their duties would remain unaltered, whatever way the abſtruſe queſtion might be decided. Far otherwiſe would it be, ſhould one of the teachers permit the mode of conduct, amuſements, and pleaſures, to which they had been accuſtomed, and the other condemn them. Far otherwiſe would it affect their minds, ſhould the one lead them to ſuſpect thoſe acts of piety which the other had recommended, and repreſent to them as fallacious the hope of a ſpeedy converſion, with which the other had flattered them. In general, the perplexities and ſcandal that may be, and actually are, occaſioned by erroneous teaching, ariſe on points to which ſymbolical books have paid little attention, and in which men know how to diſpenſe with their aſſiſtance.

Let now the impartial reader decide, how far the judgment of our author concerning articles of faith is juſt, from the preceding compariſon of human creeds with the ſcriptures, and from experience. To many, perhaps, it will not appear altogether improbable, that the holy ſcriptures alone, without any human additions, or authoritative interpretations, are ſufficient to maintain the unity of doctrine neceſſary for general inſtruction and edification; ſo far at leaſt as this unity requires nothing but the principles

ciples of truth, and not reſpect to the heads of church or ſtate. It muſt alſo be obſerved, that the only neceſſary unity of opinion is intelligible to the common capacity of mankind, without the aid of learning or philoſophy: this is what concerns the facts of chriſtianity, as delivered in the creed of the apoſtles, and in the doctrines and precepts immediately deducible from it. All other theories and hypotheſes appertain not to general edification, or ſhould be propounded with modeſty as private opinions, and left to the hearer's examination. If a teacher, from his knowledge of his flock, have reaſon to ſuppoſe, that a conſiderable portion of them have not ſufficient knowledge and wiſdom to prove ſuch theories by the holy ſcriptures, and are incapable of forming a right judgment of them, ſo that his hearers muſt blindly believe what he delivers, merely from their reſpect to his authority, this ought to prevent his uttering them from the pulpit.

PROP. CLXXXIV. p. 530.

On the Expectations of the Bodies politic of the preſent State of the Earth, and particularly of the Jews.

In proof of the expectations which our author announces in this ſection, he appeals to prophecies in the holy ſcriptures, it is true, but he does not cite them with accuracy: ſtill leſs does he expound them, and ſhew, that they actually foretel the events which he is led by them to expect, though theſe prophecies muſt be the principal, if not ſole grounds of his expectations. For were we to judge from the experience of paſt times what may happen hereafter, and form our prognoſtic from the courſe of the world, theſe expectations may turn out in many reſpects differently. It would not have been amiſs, too, had our author been more preciſe and circumſtantial in his arguments. He ought not to have explained the prophecies concerning the latter days ſo authoritatively as he has done, or conſidered their meaning as ſo determinate and preciſe, as it is well known, that many expoſitors of the prophetic paſſages which he had in view have not found in them any grounds for ſuch expectations, and others have deemed the language of the prophecies, particularly thoſe of the Old Teſtament that relate to this point, ſo enigmatical and obſcure, and the principles of interpreting prophecies as yet ſo indefinite, that they conſider themſelves bound to withhold giving an opinion. Prudence appears to me to recommend the latter, as the ſafeſt part that can be taken. It has never yet been aſcertained, how far theſe prophecies have already been fulfilled, and what parts of them are accompliſhed. Thus we want that key to the prophetic writings, which a compariſon of what is paſt with the types and expreſſions under which it is couched would give us, to decypher the prophecies of events that are ſtill to come. Whilſt we want this beſt aid to an interpretation of the prophetic mode of writing, it is impoſſible for us to determine, with certainty, when, and how far, images and expreſſions taken from earthly things, and from temporal

poral happineſs and unhappineſs, muſt be received in a ſtrictly literal ſenſe, or as figurative and hyperbolical. As far, however, as we can with any confidence employ ſuch aids, we ſeem to be juſtified in underſtanding the prophecies in a figurative and ſpiritual ſenſe. Every one muſt admit that our Lord foretold the deſtruction of Jeruſalem, and the overthrow of the Jewiſh republic in expreſſions, and by figures, that we muſt not interpret literally. He ſays, amongſt other things, that he ſhould be ſeen coming in the clouds, and that ſigns ſhould appear in the ſun, moon, and ſtars; yet nothing of this literally happened. Even at his firſt coming upon earth, as it is called, the prophets of the Old Teſtament had repreſented him as the founder of an earthly kingdom. Now as it is obvious, that this did not happen, and that he never ſo appeared, what reaſon have we to preſume, that a ſecond coming, totally different from the firſt, ſhould be announced in expreſſions and figures, for the moſt part, not differing from thoſe by which his firſt coming was unqueſtionably announced? An authentic explanation of a prophecy of the prophet Joel, in the ſecond chapter of the Acts of the Apoſtles, ſeems to me a ſtrong argument for the ſpiritual meaning of every preſage relating to the kingdom of the Meſſiah. The prophetic words, *I will ſhew wonders in heaven above, and ſigns in the earth beneath, blood, and fire, and vapour of ſmoke*, are not taken in the proper and ſtrict ſenſe.

Let us add to this the beautiful picture of general happineſs and a golden age, with which Iſaiah, in his eleventh chapter, delineates the latter days, and the commencement of the Meſſiah's reign upon earth; if we compare it with what actually happened at that time, it will appear, how extremely cautious we ought to be, in applying to the imagery of the prophecies a groſs terreſtrial meaning. The expreſſion of St. Peter, that *no prophecy is of private interpretation*, that is, can only be explained completely by the events which actually accompliſh it, ſeems to hold good, in a particular ſenſe, of all theſe prophecies. We ſhall be perfectly juſtified, therefore, ſo long as nothing more certain and preciſe is made out, in conſidering as uncertain the prophetic grounds alleged for the expectation of the deſtruction and abolition of all the preſent powers and kingdoms of the earth, by a fifth monarchy, or millennium as it is called, and of the eſtabliſhment of this kingdom of the righteous, itſelf. On the dogmatic grounds that may be brought in ſupport of ſuch an expectation, I lay no great ſtreſs. The public atteſtation of Jeſus, ſufficiently illuſtrated by what follows, that his kingdom is not of this world, ſeems to me to contradict every expectation of his aſſuming any temporal dominion; neither do I think its force has ever been weakened by any counter-arguments. At leaſt, I conſider it as a juſt and valid objection againſt the expectation of ſuch great changes, that we cannot poſſibly conceive when, how, or by what means they can be effected. Still more weighty is the objection, that theſe expectations are not more fully demonſtrable from the ſcriptures, than that of the millennium, as they are chiefly, if not wholly, founded on a prophecy in the Revelation of St. John. It is well known how much may be ſaid againſt the divine authority of

of that book, and how weakly the arguments of ſome of its learned opponents, particularly of Semler and Michaelis, have been oppoſed. The point is not, perhaps, abſolutely decided: yet I think no impartial inquirer, after having duly weighed and conſidered the arguments for and againſt the authenticity of the Revelation, can maintain, as true and certain, any doctrine or expectation founded ſolely on that book. Till ſomething more deciſive is offered on this point, I can find neither the complete deſtruction and abolition of all the preſent powers and kingdoms of the earth, by the eſtabliſhment of a fifth monarchy, or millennium, nor the approaching temporal dominion of Chriſt, according to the expectations announced by our author, to be clearly foretold in the prophecies.

The expectation of a future general converſion and gathering of the Jews into the church of Chriſt, I muſt make an exception, as it ſeems to me, to be foretold with ſufficient clearneſs, in the well-known paſſage, Rom. xi. 26. There are ſome, indeed, who interpret the words of the apoſtle, "all Iſrael ſhall be ſaved," of a ſpiritual Iſrael, or the whole number of believers of the church of Chriſt, compoſed of Jews and Gentiles; and others who refer it to the Jewiſh nation, but conſider it as already fulfilled. The ſuppoſition of a ſpiritual Iſrael being meant, however, does not agree with the context, as, throughout the whole of the diſcourſe, of which it makes a part, the Iſrael of the apoſtle unqueſtionably means the Jewiſh nation. The ſame Iſrael of which he ſays, that blindneſs in part is happened to it, muſt alſo be underſtood when he ſays, that all Iſrael ſhall be ſaved. Further, the apoſtle declares, that he announces a myſtery, that is, according to the ſcriptural ſenſe of the word, a thing hitherto unknown, or an occurrence not to be diſcovered by human foreſight. Now that Iſrael ſhould be in part blind could be no ſuch myſtery, for this was well known to every chriſtian: or that the fulneſs of the Gentiles ſhould come in, for it was already known, that the heathens ſhould be received into the church of Chriſt. Paul had already preached the goſpel to them, and converted many of them to chriſtianity. Neither can it be deemed a myſtery, that all thoſe Jews and Gentiles, who were choſen by God to conſtitute the church of Chriſt, ſhould actually walk according to it. For this was by no means an event undiſcoverable to the human underſtanding; as it was already in part fulfilled, and the complete accompliſhment of it muſt be highly probable, nay could not be doubtful to any chriſtian. Beſides, were we to underſtand by all Iſrael that ſhould be ſaved the ſpiritual Iſrael, it would be ſo far from being ſuitable to the end for which the apoſtle announced this myſtery, that it would be totally repugnant to it. He diſcovers his aim clearly, in that he ſays: "for I would not, brethren," the chriſtian Gentiles to whom he had before particularly addreſſed himſelf, verſe 13. "that ye ſhould be ignorant of this myſtery, *leſt ye ſhould be wiſe in your own conceits.*" He had already warned them, that they ſhould not boaſt againſt the branches of the olive-tree into which they were grafted, that is, againſt the choſen Iſrael, or deſpiſe them as utterly rejected and caſt off by God. This explanation is congenial to the deſign of the apoſtle,

apoſtle, whoſe myſtery was intended to ſuppreſs the pride of the believing Gentiles, and make them think better of the Jews. Any explanation, that does not accord with the attainment of this purpoſe, muſt be rejected. How would it contribute to leſſen the pride of the Gentiles, to tell them, that the whole ſpiritual Iſrael, that is, all whom God ſhould appoint to become members of the church, from every nation on earth, without diſtinction, ſhould be ſaved? How does this information tend to inſpire the believing Gentiles with leſs contempt for the unbelieving Jews? Would this explanation of the myſtery change their opinion, that the Jews were utterly rejected by God? Admitting this ſenſe of the words, the apoſtle ſays nothing to his purpoſe, nothing that would make the heathens more courteous to the Jews. But his words are perfectly adapted to his intentions, when he ſays: the blindneſs which has happened to a part of the Jews, ſhall not continue for ever, but only till the bulk of the Gentiles ſhall be converted. This blindneſs will then be removed. Thus you heathens muſt not imagine, that theſe unhappy people are wholly loſt, and that all God's great deſigns and purpoſes with them have terminated in an utter rejection. No: the gifts and calls of God to them will never be done away.

This ſenſe is farther confirmed by the quotation from Iſaiah: "There ſhall come out of Sion the deliverer, and ſhall turn away ungodlineſs from Jacob." Were not this the true ſenſe of the words, but a ſpiritual Iſrael were ſpoken of, why ſhould the apoſtle take the trouble to ſhew the little incredibility of the change foretold by him? They who "abide not in unbelief ſhall be grafted in: for God is able to graft them in again. For if thou (*an heathen*) wert cut out of the olive-tree which is wild by nature, and wert grafted contrary to nature into a good olive-tree: how much more ſhall theſe, which be the natural *branches*, be grafted into their own olive-tree?" To this follow the words in which he clearly and directly ſays, what he had before expreſſed figuratively. How little does the explanation of a ſpiritual Iſrael agree with all this! Let us alſo take the following into conſideration. The counſels of God are here laid open to the apoſtle, and he lets us perceive a certain analogy between the chooſing of the heathen, and the future chooſing of Iſrael. After he has made the general remark, that God has not repented of his gifts, or of his calling, and that he will not alter, or depart from his purpoſes and promiſes to his choſen people, he adds the following words: "for as ye (the heathen) in times paſt have not believed God, yet have now obtained mercy through their unbelief: (both here and elſewhere the apoſtle repreſents the unbelief of the Jews as the occaſion of the reception of the Gentiles, and Chriſt himſelf ſeems to do the ſame in the parable of the wedding of the king's ſon) even ſo have theſe (the Jews) alſo now not believed, that through your mercy they alſo may obtain mercy." That is, as appears from the context, God will ſuffer them to continue in blindneſs and unbelief, as formerly the heathen world, that he may one day have mercy upon them of his own free grace, without the leaſt ſhadow of deſert in them, more than there had been in the heathen. The apoſtle then proceeds to the

fundamental

fundamental principle of the kingdom of God, which clears up the whole of God's conduct both to the Jews and Gentiles, and gives us a key to it. *For God hath concluded them all in unbelief, that he might have mercy upon all.* He hath ſuffered both Jews and Gentiles to continue in like blindneſs, and the ſame condemnation, that all he ſhould do to deliver each might be the effect of mercy alone, and be acknowledged as a free and unmerited grace. Difficult as the latter ſentence is, from its connection with the whole it can have no other meaning than that which is here given to it. How much the expectation of a future general converſion of the Jews is confirmed by it, muſt be obvious to every one. I ſay a *future* general converſion of the Jews: for there are ſome who allow the choſen people of Iſrael to be here meant, yet maintain that this converſion happened long ago, and ſoon after the apoſtle's prediction. This ſeems to me a forced conſtruction of the words, and not ſuitable to the context. Hiſtory mentions no converſion of the Jews in the earlier periods of chriſtianity, ſubſequent to this prediction of the apoſtle, ſo conſiderable as to be deemed an accompliſhment of it, with any appearance of reaſon. We find no account of any number of the Jewiſh nation embracing chriſtianity that can be compared with the earlieſt converſions which followed the firſt and ſecond preaching of Peter, or which were brought about by the labours of the other apoſtles, previous to this prediction of Paul. Already when Paul wrote, he had quitted the hardened Jews for the heathens, and had given up the hope of effecting more with them than had already been done. If, notwithſtanding the conſiderable number of Jews already converted, and though the firſt ſtem of the chriſtians conſiſted of Jews, it be ſtill ſaid, that Iſrael was rejected, how could a ſubſequent weaker and very limited converſion be deemed a fulfilling of the words, *all Iſrael ſhall be ſaved?* Was the fulneſs of the Gentiles already come in, in thoſe early days? However limited we may think ourſelves juſtified in ſuppoſing the meaning of this *all* to be, it would be unnatural to ſuppoſe, that the converſion of ſome individuals could be termed a general converſion, in oppoſition to that of ſeveral thouſands at once. It would be abſurd to hold up the making a few occaſional proſelytes to chriſtianity as a converſion of the whole, whilſt the majority of the nation remained unconverted, and conſidered themſelves as a choſen people, in oppoſition to the chriſtians.

After the important converſions that had already happened, how could the apoſtle term ſuch inconſiderable ones, which were indeed very probable, and might be foreſeen without any divine revelation, a myſtery, or an occurrence not to be preconceived by the human underſtanding? For, after what had already taken place, it might eaſily be preſumed that many individuals of the Jewiſh nation would embrace the chriſtian religion. If the apoſtle meant to ſay no more than this, he ſpoke very hyperbolically, when he repreſented this prediction as a myſtery. But it was highly improbable, and moſt myſterious, according to the appearance of things, that a people, which now denied Jeſus of Nazareth, ſhould acknowledge him to be the Meſſiah, and that a belief in him ſhould become their national religion. If it be ſaid, that the aſſurance of

a diſtant, though great converſion, would have contributed little to the conſolation of the then afflicted Jews: I would anſwer: it would comfort them at leaſt as much as other joyful prophecies of the Old Teſtament, predicting very diſtant events, in the accompliſhment of which they could not participate. But the apoſtle does not give this as the deſign of his prediction: he aſſigns as a reaſon for it, that it was intended to prevent the Gentiles from deſpiſing the Jews, as a nation totally rejected by God. Yet how could the occaſional converſion of a few of the Jews contribute to this purpoſe? If the conſideration that ſo many Jews had been made proſelytes to chriſtianity on the firſt promulgation of it, in a manner far more ſtriking than has ever ſince happened, even to the preſent day, and that the firſt preachers of the goſpel, and the firſt chriſtian communities were Jews, were inſufficient to induce the heathens to judge more favourably of that people, and its final deſtination; how much leſs would the following ſlighter converſions be capable of bringing them to a gentler and more kind opinion? After all that has happened in that reſpect, from thoſe times to the preſent day, has a chriſtian leſs reaſon now to conſider the Jews as a people forſaken by God, than then?

Finally, if, to weaken theſe arguments, it be advanced, that σωθήσεται muſt be tranſlated, will be ſaved, in a conditional ſenſe, included in verſe 23, that is, ſo far as they do not remain in unbelief, and underſtand by πας Ἰσραὴλ, all who believe; this would be ſuppoſing the apoſtle to diſcloſe a very important myſtery. He would ſay then: now Iſrael is in part blind and unbelieving, till the appointed number of the Gentiles enter into the church, and ſo all Iſrael, that is, all who ſhall believe, will be ſaved. An important diſcovery, indeed, and very capable of abating the pride of the believing heathen!

Nothing remains for us then, but that we underſtand the myſtery as relating to a future national converſion, which, little as the appearance of it may be at this time, and little as it probably can be in the preſent ſtate of chriſtianity, and with the now prevailing doctrines, will moſt aſſuredly happen.

Whether a general converſion of the Jews will be accompanied with their reſtoration to the land of Paleſtine, ſeems to me far leſs clearly determined by the prophecies of the Old Teſtament, than it does to our author. The prophecies contained in the third and fifth books of Moſes, and other parts of the Old Teſtament, that are commonly adduced in proof of this, contain many circumſtances from which it clearly appears that theſe prophecies are already fulfilled by the Babyloniſh captivity, and the return from it. At leaſt it is inapplicable to the preſent ſtate of that people, and their preſent long diſperſion, as idolatry is every where announced as their prevailing ſin, and the cauſe of their baniſhment: but it is well known, that ſince their being ſet free by Cyrus, and ſtill more ſince their diſperſion by the Romans, this is a ſin to which they have been by no means addicted.

Far

Far more probable, in my opinion, and more clearly grounded on prophecies of the Old Teſtament, and ſayings of Chriſt, is the expectation that the goſpel will be ſometime or other preached to all nations, and that chriſtianity will be the prevailing religion of the earth. Neither reaſon, nor experience offers any objections to the arguments in favour of this expectation, which our author adduces from the nature of chriſtianity, namely, that every important truth will, ſooner or later, riſe victorious over and ſuppreſs its oppoſing errors. It may be objected, indeed, that chriſtianity has yet made little progreſs amongſt the nations of infidels: nay, that in countries where it is the eſtabliſhed religion, its influence and authority ſeem daily to decay. But the obvious reaſon of both is, that the ſyſtem of chriſtianity which is preached to unbelievers is too much altered and corrupted by foreign additions, and muſt be brought back to its original purity and truth, before it can triumph over ignorance, infidelity and ſuperſtition. Before chriſtianity is ſo purified, it cannot produce the expected effects, but muſt continue to experience various oppoſitions; till at length theſe oppoſitions will become the means and occaſion of reſtoring it to its firſt important truth and purity.

PROP CXCII. p. 546.

On the Terms of Salvation.

Our author here handles the difficult and important queſtion, how far faith in Chriſt is to be conſidered as the means of ſalvation. Many things that he ſays on the ſubject are good and juſt; but as he has not developed and defined the idea of faith, what he aſcribes to it will ſcarcely appear ſufficiently clear and methodical to the reader. "Chriſt our Saviour," ſays he, "is ſent from heaven, God manifeſt in the fleſh, that whoſoever believeth in him ſhould not periſh, but have everlaſting life; that, though our ſins be as ſcarlet, they ſhould by him, by means of his ſufferings, and our faith, be made as white as wool; and the great puniſhment, which muſt otherwiſe have been inflicted upon us, according to what we call the courſe of nature, be averted. Faith then in Chriſt, the righteous, will ſupply the place of that righteouſneſs, and ſinleſs perfection, to which we cannot attain. And yet this faith does not make void the law, and ſtrict conditions, above deſcribed; but, on the contrary, eſtabliſhes them. For no man can have this faith in Chriſt, but he who complies with the conditions. If our faith do not overcome the world, and ſhew itſelf by works, it is of no avail. It contains all the other chriſtian graces; and we can never know that we have it, but by having the chriſtian graces, which are its fruits." Hence he infers, that a mere aſſurance, or ſtrong perſuaſion, of a man's own ſalvation, or, as it is elſewhere

expreſſed, a mere confident acceptation and imputation of the merits of the blood of Chriſt, is neither a condition, nor a pledge of it. Such a ſtrong perſuaſion may be generated, whilſt a man continues in many groſs corruptions: and, on the contrary, a man may poſſeſs every chriſtian virtue, without having a firm aſſurance of his own ſalvation. Fear, in particular, cannot well be conſiſtent with ſuch an aſſurance. On the queſtion concerning the privilege and advantage of faith, he obſerves, firſt, that the righteouſneſs and ſufferings of Chriſt, with our faith in them, are neceſſary to ſave us from our ſins, and to enable us to perform our imperfect righteouſneſs: and, ſecondly, that faith is propoſed by the ſcriptures as the means appointed by God for rendering imperfect righteouſneſs equivalent, in his ſight, to perfect, and even of transforming it into perfect, as ſoon as we are freed from this body of fleſh and death. Faith, he adds, improves righteouſneſs, and every degree of righteouſneſs is a proportional preparative for faith; and, if it do not produce faith, will end in ſelf-righteouſneſs, and *ſatanical* pride.

To reduce theſe various aſſertions into due order, and to ſhew how far they are conſiſtent with each other, with the nature of man, and with the moſt obvious interpretations of the ſcriptures, we will endeavour to give as juſt, inſtructive, and comprehenſive a notion of the nature of faith in general, and of faith in Chriſt in particular, as an hypothetical explanation will admit. Faith, or belief, both in common language, and in the language of the ſcriptures, ſignifies the receiving and admitting ſomewhat as true, from the teſtimony and authority of others, and on account of that teſtimony and authority. When I conſider as true any fact teſtified to me by others, without any experience of it myſelf, or when I admit any propoſition in mathematics or philoſophy on the authority of a man acquainted with either ſcience, without my being capable of perceiving the proofs or demonſtrations of it, I may be ſaid to believe this fact, or propoſition, in the true ſenſe of the word. On the other hand, if I have experienced the firſt myſelf, or proved the latter in my own mind, I do not merely believe, I know and perceive the truth. In what follows, I ſhall endeavour to prove that this notion is conformable both to the common uſe of words, and to the ſcriptures: at the ſame time, I ſhall endeavour, as much as poſſible, to remove any objections that may be made to it. Thus faith is oppoſed to our own knowledge and judgment, and is properly a truſt in the knowledge and judgment of another, which is more or leſs effectual, in proportion to the nature of the object, and the ſcope of the faith. I ſay, more or leſs effectual: for faith has always ſome end, and, as on every occaſion it is intended to produce ſome good, muſt be conſidered as an active principle. Let us now conſider the natural frame of man, which renders it neceſſary, that he ſhould be led to a certain end by knowledge and judgment. This is moſt naturally effected by his own: but, when his own are inſufficient, he muſt employ thoſe of others. There are two ways in which a man may be guided by the knowledge of another. Either whilſt his intellectual faculties are totally paſſive, and at reſt, as the machine of the world is governed

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and led by the wiſdom of God; which blind guidance excludes faith, as well as all activity of the underſtanding: or a man may be ſo guided, that his mind may be employed, improved, and perfected, whilſt he is himſelf an agent. This laſt mode of being guided by the knowledge of another preſuppoſes and requires faith; without which it is impoſſible. In this caſe, the underſtanding, enlightened by a ſuperior knowledge, receives the concluſions and inſtructions of this ſuperior knowledge, following and obeying them from its own choice, not indeed on internal evidence drawn from its own ſtores, but from a confidence in that wiſdom which guides it, and gives it theſe inſtructions, ariſing from a conviction of the benefits of this guidance, and its obedience to it. Whenever it happens, that a weaker underſtanding is guided by a ſuperior one, it muſt be effected by faith, if not in an irrational manner, and by mere phyſical powers. Thus the faith, by which God would lead man to ſalvation, is nothing leſs than a poſitive and arbitrary ordinance of God. It is by no means confined to religion. It is the abſolutely neceſſary and ſole mean by which every child is inſtructed and governed, and by which every ignorant and unexperienced man muſt be guided.

According to this hypotheſis, there appears to me to be no proper ground of contention between faith and reaſon. A rational or well-founded faith (and who would not reject a faith unfounded and irrational) is ſo little repugnant to reaſon, that, in a multitude of caſes, and under proper reſtrictions, it would be highly unreaſonable not to believe. The caſe where faith is rational is where we want the judgment, knowledge, and experience neceſſary to the attainment of our purpoſes; where a preſent weakneſs of our intellectual faculties, or a diſadvantageous ſituation, is a clog upon our action; or where we are compelled to determine and act, before we have acquired due knowledge and experience for the government of our determinations, and guidance of our actions. Still more is it rational, when we cannot acquire a knowledge and judgment of our own, without the greateſt diſadvantages, and moſt hazardous delay, unleſs under the guidance of ſome ſuperior power, and in the ſchool of faith. In theſe caſes, we muſt have faith if we would ſeek our own good, and not be blind to it. But when, according to the ſuppoſition, our own knowledge with reſpect to the object of faith is defective, how can we rightly judge and determine whom we are to believe, to walk with ſafety? Amongſt the guides offering themſelves to us, are we not in danger of truſting to ſuch, whoſe want of ſkill or honeſty will miſlead us? To avoid this danger, our faith muſt be well founded, or we muſt have a rational aſſurance both of the capacity and good-will of our guide. Now it is eaſy to ſee that, with reſpect to the latter, we may have ſufficiently ſtrong and independent proofs: that is, we may have proofs ſufficient to convince us, that our guide has the good will to lead us right, though we have no knowledge of the circumſtance itſelf in which we are led. If, for inſtance, I know nothing of agriculture, I may yet be able to judge, whether he, to whom I intruſt the management of my farm, means me well, or not. As to the other point, the capacity of the guide, it would ſeem, that, to judge rightly of it, ſuch a knowledge

knowledge is requiſite, as would render faith unneceſſary. But if we apply it to any practical art, we ſhall find, that the moſt inexperienced may have a well grounded judgment of the ability of his guide, or at leaſt a knowledge ſufficient to enable him to form a rational determination. He has only to inquire, whether he in whom he would confide have given inconteſtable proofs of his abilities, have himſelf arrived at the point to which he would bring him, or have already performed what he requires of him. If I be deſirous of building a houſe, yet know nothing of architecture, I muſt truſt to the architect. However incapable I may be of proving his ſcience and ſkill, I am able to judge whether he have executed, in other buildings, what I require in mine; and, if I find he have, I ſhould act very abſurdly to queſtion his ability. Muſt not the greater part of mankind who truſt their lives to a phyſician, found their confidence in him ſolely on the cures he has performed? Were it neceſſary that the ſick man ſhould firſt examine the theoretical ſkill and ſcience of his phyſician, how few would ever be able to determine to ſeek help from one! It is ſufficient for us to know, that he has already cured himſelf or others of the diſeaſe with which we are afflicted; and this would render our confidence in him well founded and juſtifiable.

I am much miſtaken if our Lord Jeſus do not give us a teſt by which we may judge of the capacity of our teachers, when he ſays, that we ſhall know a prophet by his fruits. By theſe fruits, I do not imagine that he means the doctrines or ſyſtem of the prophet, but his works; that is, his whole conduct, and his way of thinking, as it appears in his behaviour. Could we ſuppoſe it to imply, that a teacher is known by his doctrines, it would be ſaying nothing. We might ſtill aſk, how ſhall I know theſe doctrines to be true? and be no wiſer than before. How would the ignorant and unlearned, who ſtood in need of theſe doctrines, be capable of judging of their juſtice and truth? But if we ſuppoſe that the prophet actually had, or profeſſed the deſign of making his pupils virtuous, juſt, peaceful, and happy, and that he was a phyſician to the ſoul, who meant to heal the various ailments and diſorders of the mind; there would be no better means, for thoſe who could not bring his doctrines to the teſt of a profound examination, to diſtinguiſh a true from a falſe prophet, than to obſerve, what would not be above the reach of their judgment, whether he were actually honeſt and diſintereſted; whether his deeds were good, or evil; whether he himſelf enjoyed inward peace and ſatisfaction, to which he promiſed to conduct his followers; and whether he had freed himſelf from the common faults, frailties, and diſorders of human nature.

Let me firſt of all obſerve here, that Jeſus Chriſt confirmed himſelf our beſt and ſureſt guide, in the way in which, according to his rule, prophets and teachers ſhould merit the confidence of their hearers, not by his doctrines merely, but particularly by his fruits, or works; and further, by his life, death, reſurrection, and aſcenſion. He ſhewed his diſciples and followers in himſelf a pattern of what he taught them to do. He was, in the moſt eminent degree, an humble and upright worſhipper of God, a meek

a meek and warm friend of mankind; all his inclinations and deſires, without the leaſt exception, were under the controul of reaſon, and he was moſt perfectly maſter of himſelf. Enjoying inward peace, and honoured with the acceptance of God, the conſciouſneſs of his innocence, virtue, and holineſs, ſet him above the wants of human nature, and made him inſenſible to the injuries or contempt of mankind. Well might he ſay: *learn of me, for I am meek and lowly in heart. Take up my yoke,* that is, follow my inſtructions, *and you ſhall find peace to your ſouls.* This peace, which never deſerted him, which all his words and works, and his whole conduct, placed in the ſtrongeſt light, his diſciples might well hope to attain by imitating him; as they could not with any ſhadow of reaſon doubt that he, who poſſeſſed it in ſo eminent a degree, underſtood the art of attaining it, and was capable of teaching it to them. Thus when he offered himſelf to man as his guide to wiſdom and virtue, to peace in God, and to a bleſſed immortality, his conduct was the pledge of his truth. With ſteadfaſtneſs unappalled, and unſhaken confidence in God, he went, through a life of tribulation, to a death, unqueſtionably rendered more terrible and painful to him by the bitter contempt of his generally known merit and worth, the triumphant laughter and ſarcaſms of his enemies, and the maledictions of his own nation, than by all the pains wherewith it was accompanied. He died with the love of his murderers and confidence in God, in his heart and mouth. He ſuffered himſelf to be laid in the grave; but ſoon aroſe again out of it, left the earth, and viſibly aſcended into the regions of perfect bliſs. They who were incapable of proving his doctrines, were able to aſſure themſelves of the truth of his hiſtory: and he who was aſſured of this could not reaſonably have any ſcruple to truſt in him, but muſt believe him with unlimited faith.

Neceſſary as it is, that the grounds of our faith ſhould be ſupported by reaſon, equally is it that its object ſhould be ſo, or thoſe doctrines and precepts which we are to believe on the authority of ſuperior wiſdom. That the doctrines of faith muſt not be repugnant to what are proved to be moral truths, or to the firſt principles of human knowledge, is too evident to be denied by any one. Thus in divine doctrines no ſuch contradiction muſt appear as would ſet our faith at variance with reaſon. If one, who proclaims himſelf a meſſenger from God, ſhould deliver doctrines that obſcure, and render doubtful, the firſt principles of human knowledge, or totally overthrow them, all the grounds of human judgment, and conſequently thoſe on which he muſt build his claim to our faith would be entirely done away. If the uſe and application of our reaſon be incompatible with faith in his doctrines, we can believe nothing, or we cannot judge whether he deſerve our confidence or not.

But it may here with juſtice be aſked, how is it with doctrines that are confeſſed to be above the reach of the human underſtanding? However it may be with ſuch doctrines, thus much ſeems inconteſtable, that ſuch things are not to be included as are inconceivable, and which, though expreſſed in the words of a known language, convey no more meaning than if they were in a language unknown. Every one muſt admit, that

that ſuch things are not objects of our faculty of conception. What a man can conceive muſt, at leaſt, be capable of being clearly expreſſed. By the words: *doctrines above the reach of the underſtanding*, ſuch only are to be underſtood, the connection and dependance of which on the things to which they are conjoined, are not explicable by the knowledge it has acquired: propoſitions that appear to it to be ſeparate and iſolated in the regions of truth, as far as it is acquainted with them. But to form this judgment of them, the mind muſt comprehend the words, or they are non-entities to it. Suppoſing the exiſtence of certain abſtract ſpeculations, the premiſes of which are indiſcoverable to the human mind, and to which all its knowledge is inapplicable, be not palpably ſhewn, we might juſtly doubt, whether the promulgation of them could be uſeful to any purpoſe, and aſcribable to the Supreme Wiſdom. At any rate, they cannot be an effectual motive of action to man: for this would require that they ſhould diſcover to him, or at leaſt ſhew more clearly and certainly, ſome relation in which he ſtood to others, or in which others ſtood to him. But propoſitions that expreſs ſuch a relation cannot be altogether above the reach of man's underſtanding. As ſoon as a man underſtands the words, they diſplay ſome connection with advantage or diſadvantage; and, if he do not fully comprehend theſe in any given point of time, they cannot be abſolutely inſcrutable to his intellectual faculties. Even experience muſt gradually give him more light on the ſubject. Beſides, it ſeems to me that ſpeculations imparted to us by others to influence our actions, muſt in ſome degree admit of being united and interwoven with our general practical ideas and principles, with which their efficacy muſt coaleſce, ſo as to tend to the ſame, not to various points. Not that a man would become more learned and enlightened thereby; as an apt ſcholar in mathematics, if he were ſhewn the ſolution of a difficult and intricate problem, without its connection with what he had already learnt being pointed out, perhaps would.

This might be an uſeful exerciſe of his faculties, if he were thereby excited to fill up the gap of the intermediate propoſitions, in order to diſcover the demonſtration himſelf, and employ it as a clue to guide his underſtanding. But this does not agree with the caſe above-mentioned. The promulgation of an unfathomable myſtery, whilſt it is and remains wholly unattainable to the human underſtanding, and whilſt in the circle of our knowledge there are no premiſes that conduct us to it, could give no exerciſe to reflection, and conſequently would not improve the mind. Hence it ſeems to me to follow, that abſtract metaphyſical truths, abſolutely above the reach of the human underſtanding, cannot be the ſubject of a revelation, or an object of rational faith, even if they could be rendered intelligible in words. But proportionally, and with reſpect to a certain ſtandard of man's intellectual faculties, and to the mode of thinking of certain perſons and times, there muſt be many true propoſitions above the reach of this or that man, and this or that period. If there have been divines who believed that they had met with ſuch unfathomable myſteries in the chriſtian revelation, probably they did not examine their nature with ſufficient care, or rightly underſtand the paſſages on which they founded them; or they

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ſought by reaſoning, or explanations, to open a way to them for their underſtanding, thus acknowledging, that even to themſelves a connection or harmony with known truths was an indiſpenſable quality of theſe myſteries. Be this as it may, it is however certain, that the chriſtian revelation, when it ſpeaks of myſteries, and myſteries revealed, underſtands facts and occurrences, which are not deducible from general ideas, or metaphyſical truths, but of the reality of which we are aſſured by our own experience, or by credible teſtimony. If we be informed of them, they muſt be revealed in a known language. If they be capable of no proper demonſtration, ſtill, on the other hand, the abſurdity or impoſſibility of ſuch a fact or occurrence muſt not be deducible from any truth already demonſtrated. Were the latter the caſe, it would be juſtifiable, in ſuch a revelation, in other reſpects ſufficiently credible, to admit paſſages which ſeem to have ſuch ſignifications as not ſufficiently eſtabliſhed, as unintelligible, or as miſunderſtood, and exert ourſelves to diſcover the intelligible or true meaning, and if we could not ſucceed in this, to conſider ſuch paſſages as not written for us, or at leaſt not yet to be diſcloſed to us.

Reaſon, conſidered ſubjectively, or as a mean and inſtrument, has been diſtinguiſhed from objective reaſon, or the fundamental principles and truths of reaſon. It has been ſuppoſed that faith might thus be exalted above reaſon, and that thus they might be oppoſed to each other, without being deſtroyed. Admitting this diſtinction to be eſſentially true, reaſon cannot be employed as the inſtrument or means of explaining the ſenſe of any inſtruction, and diſtinguiſhing what is true from what is falſe, without admitting the grounds of all human knowledge, that is, logical truths, which are founded on the demonſtrated truths of ontology and pſychology. No human reaſon can, in any caſe, diſtinguiſh what is poſſible from what is impoſſible, truth from falſehood, probability from improbability, if it be not guided by general rules: which rules conſiſt of general, metaphyſical and logical truths. Thus, in practice, ſubjective and objective reaſon are inſeparable. Beſides, the human underſtanding cannot act otherwiſe than according to the laws of mind. Theſe laws require it to have aſſociated conceptions, and conſequently to endeavour to make the knowledge newly acquired, whether by experience, or imparted information, agree with the ſtock of ideas which it had already collected. This muſt more eſpecially be the caſe, if the newly acquired knowledge become an effectual principle of action. If, in our inquiries, we do not ſet out immediately from the firſt principles of knowledge, we muſt at leaſt ſuppoſe them to be already proved: and the more diſtant our inquiry from theſe firſt principles, or the more intermediate ideas and experience are required to connect them, the more extenſive the knowledge, and the more numerous the preparatory ideas that we muſt aſſume, if we would purſue our inquiry in a rational manner. The ſtudy of revealed religion ſeems to me to be no exception to this. Revealed religion preſuppoſes not only rational men, but demonſtrated rational truths, as, without theſe, no rational ſubject could be an object of thought, and, without theſe and their application, the meaning of any thing revealed

could not be clearly perceived or determined, or we could not diſcover what it was intended to teach us. Any inſtruction, even though from God, if delivered in human words, may be miſconſtrued and miſapplied. To guard againſt ſuch miſconſtruction, and to diſcover the true and proper ſenſe of it, man has no help but reaſon. This however he cannot exerciſe, unleſs he confine himſelf to the rules of reaſoning rightly, and judge from truths already known.

This is obviouſly the caſe in paſſages that, literally taken, contradict each other: as when parts of the human body are attributed to God, and it is again ſaid, that he is a ſpirit, and that a ſpirit has neither fleſh nor blood: or when it is ſaid, that he has repented of ſomething, and again, that he is not a man that he ſhould repent. How ſhall we decide which of theſe expreſſions are to be taken in a literal ſenſe, when the ſcriptures do not plainly tell us that theſe are to be underſtood figuratively, and thoſe as ſtrictly true? Here the known principle of explaining one paſſage by another is inapplicable, and unable to determine the doubtful meaning. The obvious contradiction renders it a party, and thus it can decide nothing. Nay, what is ſtill more, itſelf appeals to the deciſion of reaſon; and when it ſays, God cannot repent, as he is not a man, it refers to reaſon, and its principles and ideas of God and man, and wills it to compare theſe ideas, that from the compariſon it may perceive the juſtice of the aſſertion, that God cannot repent. But a reaſon as void of all ideas, principles, and fundamental truths, as unpractiſed in their application, would be as incapable of judging on this ſubject, as the raw and uncultivated underſtanding of a child, or a totally ignorant and unthinking man. Hence it is clear, that when reaſon determines in favour of the propoſition, that God is a ſpirit and cannot repent, it is done in conſequence of general principles, and rational notions of God and his nature. The ſame is it in caſes where the ſcriptures deliver apparently contradictory propoſitions, relative to man, his moral nature, converſion, amendment, or future reward and puniſhment. Thus it would ſeem from many paſſages, that the forgiveneſs of a ſinner, his acceptance with God, and his ſalvation, are arbitrary gifts of the Deity, not proportioned to the rectitude of his thoughts and actions, but founded on ſomewhat foreign and external to him. But then there are numerous other paſſages that ſay juſt the contrary; that man ſhall reap what he ſows, that every one ſhall receive according to his works, be they good or evil, and that he muſt forſake what is evil, and learn to do good, if he would obtain grace and forgiveneſs of God. That theſe and ſimilar paſſages apparently contradict each other, muſt be obvious to every one. But how ſhall we remove theſe contradictions? Who ſhall decide what we are to underſtand figuratively, what literally? Not the ſcriptures: as they do not ſay, this is ſpoken metaphorically, and that is ſimple truth. Reaſon then muſt be our ſole judge. But reaſon can judge only from what it has diſcovered to be true, by experience, and reflection on the nature of the human mind, and the laws of its alterations.

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It may be ſaid, were reaſon ſo exalted, it would be totally inſuſceptible of inſtruction; and man could learn nothing by faith, or from revelation, which he might not acquire by his reaſon left to itſelf. This objection is, I think, already obviated, by what I have ſaid above of the nature of faith. It may not be ſuperfluous, however, to add a few obſervations. Speculative doctrines contrary to reaſon, if there be ſuch, cannot be imparted by revelation, or received and comprehended by reaſon. With reſpect to ſuch as are above reaſon, or which cannot be brought to harmonize with what man muſt know and acknowledge as truth, by any reflection, or by exerciſing the underſtanding to all eternity, the caſe is more doubtful. It is not probable indeed, that theſe ſhould be the object of faith, and the ſubject of a divine revelation, if the deſign of the revelation were to perfect the human mind and will, and if our faith were ſometime or other to be changed thereby into ſight. Facts, however, the promulgation of which has an influence on the peace and improvement of man, facts abſolutely undiſcoverable by reaſoning *a priori*; counſels and deſigns of God with reſpect to man, which, though perfectly conſonant to reaſon, that is, to a rational knowledge of God and man, were wholly unknown to the reaſon of this or that man, or at this or that period, or obſcurely, imperfectly, and not early enough known; in ſhort, practical truths which muſt be approved by reaſon, on ſerious and ſteady reflection, though not to be known as inconteſtably certain without the immediate and extraordinary aſſiſtance and inſtruction of God, may, and muſt be, the ſubjects of divine revelation. Who will venture to deny, that they are a ſuitable object of it? Reaſon would believe ſuch a revelation as ſufficiently ſupported by divine authority, that is, would admit it as true, uſe, and apply it, till it became convinced of its utility by experience, and learnt to perceive by earneſt reflection how true it was, how worthy of the Deity from whom it came, how ſuitable to the nature, wants, and wiſhes of man, and how perfectly conſonant to his trueſt and beſt knowledge of things. If we liſten to reaſon, it is eaſy to perceive that we are far from knowing every thing neceſſary to our happineſs here and hereafter. We find that, in many caſes, we muſt act under the direction, and according to the inſtructions of others who know more than ourſelves. We feel that we muſt learn, and learn on, and that for this purpoſe we muſt admit and employ, on the authority of others, many things, the truth of which we cannot diſcover from our own ſtock of knowledge, till we increaſe in underſtanding, and become capable of walking without aſſiſtance. Should we not learn then from our wiſe and good Creator, ſhould we not truſt to his ſupreme authority, that what he reveals to us is true, good, and beneficial? How extremely fooliſh and abſurd would it be, to deſpiſe his inſtructions to ſalvation, becauſe they had not entered into our own minds! How ſenſeleſs not to wait with patience the time, when all his precepts and ordinances ſhall be juſtified to our reaſon, by a juſt application of them!

The duty and office of reaſon in general, with reſpect to a divine precept, may be conveniently explained, from the ſteps to be taken by the governor of a remote province,

vince, on receiving orders from his king, or by a judge, who hears the teſtimony of witneſſes, and is thence to diſcover the truth. The firſt will require from the meſſenger who brings him the command a clear credential, and a ſufficient confirmation that he is actually ſent from the king. When he is aſſured of this, he will endeavour to underſtand the king's orders, and if they be in ſome paſſages doubtful and obſcure, he will carefully call to his aſſiſtance the rules of ſound criticiſm, and all the knowledge he has of the monarch's character, notions, and deſigns. If he be actually a wiſe and good king, he will not be diſpleaſed with his vicegerent for explaining paſſages that ſeem to him obſcure, contradictory to other paſſages, incompatible with the known character of the king, or militating againſt his deſigns, by other parts of his inſtructions that are more conſonant to his ideas of his maſter's thoughts. If he be no tyrant, and ſuppoſe and require from his delegates reaſon and conviction, he will not in ſuch a caſe expect the ſacrifice and renunciation of reaſon, but rather that it be applied with all poſſible attention. Thus, when the point is to prove whether that which is delivered to him as the king's command actually be ſo, or not, and alſo when he is to inquire how the command is to be underſtood, reaſon muſt be employed, and there occurs no oppoſition betwixt reaſon and faith. Different indeed would be the caſe, were the king an arbitrary deſpot; and differently muſt the viceroy act, were he conſcious that his maſter was accuſtomed to iſſue contradictory and futile commands. The more uſe he made of reaſon, the more would he gain the eſteem of a wiſe monarch. Let us ſuppoſe the caſe of the delivery of a divine revelation to be as if we were to hear and examine witneſſes, and thereby to judge of a certain important fact; ſhould we renounce reaſon, or ſet up faith as contradictory to it, we can think but little to the purpoſe. To judge whether the teſtimonies be admiſſible, or not, is evidently a duty of reaſon, and the proper occupation of it. It is equally impoſſible to deny, that reaſon muſt examine the words of the witneſſes, compare them with one another, ſift them, and thus diſcover the truth. On what grounds can any caſe be exempted from the inveſtigation and deciſion of reaſon, by means of which we arrive at the truth, and proper nature of facts? If an appeal be made to paſſages of ſcripture which ſet reaſon at nought, either they ſpeak not of pure and ſound reaſon, but of the underſtanding of men blinded by prejudices, who obey their paſſions, and liſten not to its dictates; or it is ſaid, as in that well known paſſage, according to which reaſon muſt commence under the direction of faith, that our reaſon muſt be convinced of the truth of divine doctrines and precepts by divine authority, and, in caſes where we are ignorant, and require to be enlightened by God, be aſſured of our ignorance, our need of divine inſtruction, and its utility and advantages. Beſides, this paſſage evidently ſpeaks of moral precepts, or doctrines that require to be obeyed. This is exactly the caſe where reaſon itſelf commands us to follow the wiſer and better views of God; and there muſt human reaſon be convinced, that not it, but the ſupreme reaſon of God muſt guide us by faith.

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Let us apply this general theory of faith to the chriſtian in particular. Suppoſing its juſtice, it will, I hope, remove many difficulties, and throw the neceſſary light on the foregoing propoſition of our author. In the firſt place, it will be clear why faith in God, and Jeſus Chriſt, are ſo frequently and expreſsly required. However high and advantageous ideas we may form of the force and extent of human reaſon, theſe ideas would only hold of the maturer reaſon of the wiſer few. The greater part of mankind we muſt conſider as in a ſtate of childhood, embracing intelligible moral truths leſs from the exerciſe and application of their own mental faculties than on the authority of credible witneſſes, and conſequently through faith. When I conſider how uncultivated, how unpractiſed, the underſtanding of moſt men is, and, according to the preſent ſtate of the world and of human life, muſt be, and how greatly they require a poſitive inſtruction and confirmation of the moral truths neceſſary to the peace and improvement of man; I cannot agree with thoſe divines, who conſider the diſcovery of abſolutely inſcrutable and incomprehenſible truths, or myſteries, in the theological ſenſe of the word, as indiſpenſable characteriſtics of a divine revelation. Surely a revelation would not be unworthy of the goodneſs of God, if it only imparted, and eſtabliſhed on unequivocal authority, inſtructive moral truths of importance to all mankind: nay, if it only diſcloſed ſome ſalutary counſel, which reaſon itſelf would hereafter have diſcovered, though not for ages; or if it corrected falſe principles, on which the world had hitherto built its grounds of conſolation, or its ſyſtem of moral duties.*

Should

* This, in my opinion holds good, particularly of the doctrine of the immortality of the ſoul, and a future ſtate of retribution. This doctrine, unqueſtionably, was not unknown to mankind in the earlieſt ages, and ſeems ſo indiſpenſable to man's peace, and ſo deſirable to every mind, not wholly corrupted and depraved, that men willingly and eagerly embrace whatever has the leaſt appearance of ſupporting this doctrine. Thus men contented themſelves with the feeble and conjectural arguments of a Socrates and a Plato; or rather they wanted them not, at a period when they did not ſo much reaſon themſelves into a belief of it, as build their faith on the teſtimony of tradition, and certain obſcure perceptions which the mind felt of its immortality. But as the original ſimplicity of manners gradually diſappeared, free-thinking and depravity gained ground; when ſtronger and more generally inſtructive proofs became neceſſary to ſatisfy the ſceptic philoſopher, and convince the contemner of morals. Not long before the birth of Chriſt, theſe inquiries had been purſued ſo far, that men began to perceive the weakneſs and inſufficiency of the arguments adduced in ſupport of the immortality of the ſoul; but ſtill they were incapable of ſubſtituting more valid and powerful ones in their ſtead. In this intermediate ſtate, a belief ſo indiſpenſable to the rendering man tranquil, and exciting him to virtue, appeared very doubtful to thinking minds.

The moſt virtuous of mankind, a Cato, a Brutus, who ſo ardently wiſhed that this doctrine might be true, were not ſufficiently convinced of it by the arguments of a Plato. How would they have rejoiced, how thankful would they have been, to have received a clearer light, and ſtronger confirmation on this ſubject! How muſt they have wiſhed to have been freed from their anxious doubts! This light, this confirmation, ſo ſuitable and neceſſary to the ſtate of the world at that time, the goſpel of Jeſus imparted to us. In this view, it could not have been promulgated at a more ſeaſonable time. Even amongſt the Jews, a very reſpectable ſect denied the immortality of the ſoul, and a future ſtate of retribution; and the revelation of the Old Teſtament

Should the divine revelation furniſh the occaſion of a great revolution, ſtill might I venture to determine how far it is conformable to the wiſdom and goodneſs of God, to impart it immediately to mankind. For the many, and even for the wiſer few, at leaſt in the gloomy hour of doubt, faith in the divine teſtimony will be partly an indiſpenſable, and partly an additional aſſurance of thoſe fundamental principles of religion, that there is a God, and that he will reward all who ſeek him. The more unpractiſed the human underſtanding in early ages, the more neceſſary was the principle of faith. Therefore God required it from his firſt worſhippers: therefore was ſo great a value ſet upon it, and it was imputed to Abraham as righteouſneſs. I cannot here omit an obſervation that particularly ſhews the neceſſity of religious faith. I muſt however refer back to what I have already ſaid on the too early exerciſe of the active powers of the mind, or propenſity to liberty, as a probable ground of moral evil. This early propenſity to liberty will determine a man in the choice of what is good or evil, before he has to guide him any knowledge, or judgment of them, or views derived from remembrance of the paſt, and a proſpect to the future. There is no remedy for this evil more powerful than faith, or a rational confidence in the knowledge of a wiſe and well-meaning guide. By this alone can the wild propenſity to liberty be reſtrained, and man's unbridled ſelf-will, his dangerous curioſity, his inquiſitive *wherefore*, and his inclination to extend his conceptions, be ſo fettered as to occaſion him the leaſt poſſible prejudice, though not forcibly ſuppreſſed. How completely would this be effected, if God gave mankind, in his ſon Jeſus Chriſt, a perfect and divine man as a competent guide, meriting their confidence by every thing capable of obtaining it from a rational being! In him then would they have an expreſs image of God, equal to their comprehenſion, a pattern of every excellence, and their leader in the path of perfection and happineſs.

Now if Jeſus Chriſt be ſuch a guide to man, and if, which appears to me to be the caſe, all the appellations given him in the ſcriptures, all the benefits he has beſtowed

ment was ſo little calculated to oppoſe this continually ſpreading diſbelief, that the notion of a future ſtate, held by the other Jewiſh ſects, was not ſo much founded on this, as on tradition, and mere human authority. I muſt here obſerve, by the bye, that this conſideration throws ſome light on the queſtion, whether the chriſtian revelation has contributed to the moral improvement of the world, and in what degree. For were the civilized, poliſhed, and reaſoning part of the world, at the time of Chriſt's coming, in danger of utterly loſing this belief, which, as I will venture to affirm, is indiſpenſable both to the knowledge and exerciſe of man's general duties, and of falling into the moſt immoral free-thinking, and comfortleſs ſcepticiſm; chriſtianity, had it only prevented this extreme depravity, and been a powerful remedy againſt the abſolute want of religion accompanying it, would have been one of the beſt and moſt important gifts of God. With reſpect to this queſtion, as many of the partiſans of chriſtianity have already obſerved, we are to conſider not merely the poſitive improvements which it has introduced into the world, but alſo the many and great corruptions which it has prevented: not merely how much the practical principles and conduct of men have been corrected and improved by the chriſtian revelation, but how much worſe the world would have been, had it not been promulgated.

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on mankind, and all that he has done or ſuffered for them, be reducible to this idea,* it is eaſy to conceive that faith in him muſt be an active confidence, ſuch a confidence as a traveller, about to perform an unknown and dangerous journey, muſt have in a truſty and experienced guide. Evidently Chriſt our Saviour conducts us to a point, at which, without him, we could not arrive, or, at leaſt, not ſo eaſily, conveniently, and certainly; or he renders us capable of attaining a happineſs, by means of our faith in him, which otherwiſe we could not reach. But much as he may do for us, ſtill ſomething is left for ourſelves to perform. The high value of the ſervices he has done us, and his labours to promote our welfare, by no means exempt us from the duty of endeavouring after our own happineſs: and though he has rendered it poſſible for us to be happy in God, he has not removed the neceſſity of our carefully, ſincerely, and uninterruptedly treading in his ſteps, according to the inſtruction, encouragement, and ſupport that he has given, and will give us. Were it not ſo, we muſt preſume, that he meant to plunge our inclinations to good into a lethargic ſtupor, and quiet our minds under the dominion of ſin. *So were Chriſt the ſervant of ſin. God forbid.* So had he merely aſſured us of forgiveneſs, and brought us comfortable and joyful tidings, without requiring of us any application of them conducive to the increaſe of truth, righteouſneſs, and perfection, but rather ſuch as muſt prevent it. He would have imparted to us the hope of happineſs, and offered us the greateſt advantages, without making the abſolutely neceſſary qualification on the ſide of man a condition of the poſſeſſion of this happineſs, and of the enjoyment of theſe advantages. Thus the moſt perfect maſter muſt have ſought to lead his ſcholars to his happineſs indeed, but not to his virtues and perfection. As to believe this would be blaſpheming the holy Jeſus, and his ſervices to mankind, and as it is palpably repugnant to man's reaſon and nature, and to the aſſertions of Jeſus and his firſt diſciples, we dare not give ſo narrow a ſignification to faith in Chriſt, to which the happineſs imparted and inſured by him is promiſed, as to confine it to any one part of what he has done and ſuffered for us. However good, and apparently pious, the intention of the common limited definition of faith to ſalvation, that the blood and death of Chriſt conſtitute its ſole object, it appears to me expoſed to a miſconſtruction not unfrequent, and to an abuſe almoſt inevitable to the unthinking.† This makes it poſſible for many chriſtians to ſet their

* To guard againſt any miſconſtruction, as if I thus repreſented Jeſus merely as a teacher and pattern to the world, let me obſerve, that I hold him for a guide who makes imitation poſſible to his imitators, ſmooths the way for them, removes the obſtacles that might retard them, and in ſhort performs every thing neceſſary, that they who are led by him need only truſt in him, and ſteadfaſtly follow him, to obtain their end.

† Let me not here be miſunderſtood. I am far from denying that the blood of Chriſt, which was ſhed for the ſins of the world, is an object, and indeed an important object of the faith to ſalvation. I only maintain that the object of this faith is not only the death of Jeſus, and the doctrines immediately relative to it, but alſo every other doctrine and precept of Jeſus and his apoſtles.

minds

minds at peace, without thinking of amending their lives, or deeming it at all neceſſary. This, as I ſhall hereafter more fully ſhew, renders the tranſition from faith to good works, or to righteouſneſs, not leſs difficult in practice than in theory. This makes a chriſtian capable of ſaying: I have faith, and thou works.

Experience ſeems to me ſufficiently to ſhew that the pernicious conſequences above-mentioned ariſe from ſuch a confined notion of faith, and that the doctrine of juſtification and ſalvation by faith alone promotes ſuch unchriſtian abuſes; and every intelligent preacher, who attends to the way of thinking of his hearers, will find chriſtians enow who think in this manner, as a man whom I well know, and not one of the lower claſs, thought proper to explain his ſentiments in this manner, when exhorted to amend his life, and exerciſe the practical virtues of chriſtianity. But, ſaid he, if I muſt do all myſelf, what does it avail me, that Chriſt has done it? He has done it once for me, and payed my debt; why then ſhould I pay it again?—It may be replied, indeed, to chriſtians who think in this manner, that their faith muſt be active. But ſtill, if its proper eſſence, and whole value, be placed merely in the appropriation and acceptation of the ſacrifice of Chriſt, I do not ſee why good works, that are frequently ſo much depreciated, are abſolutely neceſſary; particularly, as on the common ſyſtem it cannot well be denied that a man, after a continued courſe of wickedneſs, may, at the end of his life, if he only accept the merits of Chriſt, and confidently believe that he has paid and performed every thing for him, be acquitted of his debt, and conſequently obtain forgiveneſs. Other motives to virtue, though good in themſelves, will be too weak to countervail the deep-rooted prejudice of the ſuperfluouſneſs of our good actions, and of faith in Chriſt being a ſufficient compenſation for them. Their power will be ſo much the leſs, as men commonly conceive their future happineſs to be ſomething poſitive, depending more on the arbitrary will of God, than the virtuous diſpoſition of the mind; and as the maxim, which cannot be too much or too carefully inculcated, that virtue itſelf is, and ever will be happineſs, is generally decried and abjured as atheiſtical. This probably is, becauſe the doctrine, that a mere confidence in the merits and virtues of another, or the wiſh to be juſtified by another, renders man capable of ſalvation, muſt fall to the ground, as ſoon as it is admitted to be true, that a virtuous mind is happy in every point of its exiſtence ſo far only as it has loved and practiſed doing good, and that a vicious mind muſt be puniſhed in every ſtate, in proportion as it has loved and exerciſed evil. Some endeavour here to avail themſelves of a diſtinction, and ſay: happineſs will be obtained only by means of faith, but degrees of it will be awarded in proportion as this faith diſplays itſelf in works. But whoever maintains this, muſt at leaſt preſume, that the point at which faith begins muſt have a preponderant tendency to good, that the mind of a believer muſt be converted from a predominant love of ſin to a ſuperior love of virtue, and that the crooked way muſt be left, and the ſtrait way entered upon, at leaſt a ſingle ſtep. In this ſtate the believer may be conſidered

ſidered as a convaleſcent, who, now the criſis of his diſeaſe is paſt, begins to find himſelf ſomewhat eaſier and better.

That God may remit all poſitive puniſhments to ſuch a man, on account of his faith, is not utterly inconceivable. For as theſe relate to his former ſtate of unbelief, and would bring him to reflection and knowledge, being no longer neceſſary in his believing ſtate, at leaſt as far as they tended to this purpoſe, they might conſequently be remitted. But ſtill this is the loweſt degree of happineſs that can be aſcribed to him, unleſs ſomething poſitive or arbitrary be ſuppoſed, which, by a kind of miracle, has lifted him to a higher degree than his virtue has acquired, or could reach in ſo ſhort a time, and without the practice of any good work. If this be admitted, I ſee no reaſon why we may not admit every degree of happineſs to be equally arbitrary. If, however, it be rejected here, ſo it muſt in reſpect to happineſs on the whole. Beſides, happineſs itſelf cannot be conceived without the idea of ſome degree of it; and conſequently there is nothing contradictory in the ſuppoſition of its having degrees. Can any creature poſſeſs happineſs, without poſſeſſing it in ſome determinate degree? Now what holds of happineſs in general, holds of every degree of it, and *vice verſa*. Either happineſs in general, and every degree of it, is exactly proportional and adequate to the frame of men's minds and actions, or, in all its degrees, it is totally independant of a greater or leſs degree of righteouſneſs.

The difficulty of explaining how faith produces good works, and the ſcientific ſkill requiſite to do this, ſeem to be a conſiderable obſtacle with regard to practical chriſtianity to thoſe who poſſeſs not ſuch ſkill. This is openly avowed by a very celebrated and worthy divine of our church.* It muſt be allowed that it is difficult to ſhew, in a clear and convincing manner, that he who believes in Chriſt muſt, on account of this belief, feel himſelf bound to perform good works, and that his faith muſt lead him to the love and practice of what is good. It muſt be difficult to ſhew how faith and good works are connected, and how a man's inclination and promptitude to virtue are comprehenſible from that diſpoſition of the mind which we term faith. Thus the ideas of faith and good works muſt have no ſuch intimate connection, no ſuch clear and natural relation to each other, that we may infer one from the other, without the aid of one or more intermediate poſitions. Hence we muſt reprobate the notion of faith as the ſole neceſſary mean of righteouſneſs and ſalvation, in the common acceptation. Good works, or the exerciſe of moral virtue, will not here come into conſideration: God does not conſider a man as righteous, or recompenſe him, becauſe he is juſt and good, but becauſe he believes in Chriſt. Such doctrine alone could give birth to the

* In Erneſti's *Neue Theol. Bibl. Band. I. Seite* 483, it is ſaid, "the author (the learned and acute Abbe Schubert) ſeems to be ſeduced by a deſire of demonſtrating how good works proceed from faith: a commendable attempt, indeed, but far more difficult than is imagined by thoſe who fancy they have ſucceeded in it."

inveterate diſpute on the queſtion whether good works be neceſſary to ſalvation; and decide it ſo far at leaſt to their prejudice, as abſolutely to refuſe them all influence and relation to the forgiveneſs and juſtification of man. However, as the ſcriptures ſo frequently and expreſsly require the ſtate of good works, or virtuous thoughts and actions, in thoſe whoſe faith renders them objects of ſalvation, other motives are adduced as a kind of corrective, to prevent abuſes, and to make man earneſtly ſeek righteouſneſs. Thus it is ſaid, that good works are neceſſary as they are the fruits of faith, and in ſuch a manner, that without them our faith is dead. It is ſaid that good works are neceſſary to ſhew our thankfulneſs to God, and to our Redeemer, though the latter can have no weight with thoſe to whom it is moſt requiſite to demonſtrate the neceſſity of good works. Beſides, as thankfulneſs is itſelf a good work, this is ſaying nothing more than that a man muſt do good works, becauſe he muſt do good works. Neither does it appear to be a more powerful motive to ſay, that the ſtate of good works belongs to that order of things in which God makes us happy. For good works muſt belong to this order either as they are the fruits of faith, which is no new motive, being included in the firſt; or they belong to it as a particular and diſtinct part of ſalvation, independant of faith; which is contrary to the propoſition according to which faith is the ſole condition of ſalvation.

Thus if we would prove the neceſſity of good works, or ſharpen the incentives to righteous thoughts and actions, nothing remains but to betake ourſelves to the firſt ground, namely, that good works muſt naturally and neceſſarily follow a faith ſufficient to ſalvation. But to make this ground tenable, it is not ſufficient that we maintain the neceſſary connection betwixt faith and good works, but we muſt alſo prove it: it is not ſufficient that we declare a faith deſtitute of good works falſe and dead, but we muſt alſo deduce the neceſſity of good works, by juſt and clear concluſions, from the notion of faith. Theſe concluſions cannot eaſily be too clear and ſtriking. They muſt be capable of teaching every one to know what faith and good works are, and to compare theſe two ideas together. They concern the moſt important tranſition from knowing to performing, from theory to practice, and muſt be ſo clear and natural, that whoever thinks himſelf obliged to have faith muſt, by means of an infallible and inſeparable aſſociation of ideas, conceive himſelf obliged to good works, if he have a juſt idea of faith. Thus we may eſteem faith the ſole mean of ſalvation, without detriment to righteouſneſs and virtue, ſo far as it is the firſt principle and ſeed of moral good, and conſider it as that which conſtitutes man an object of acceptance with God. For if, where faith is, good works muſt neceſſarily and unavoidably follow; and if they to whom I preach faith, as ſoon as they know what it is, cannot doubt that they muſt alſo be good and virtuous, and actually begin to become ſo the inſtant they believe; the ſacred cauſe of virtue would receive no injury from ſuch a doctrine. But were it difficult to ſhew how good works proceed from faith, ſuch a doctrine would be eſſentially prejudicial to virtue. This difficulty includes alſo a practical one; that of evincing an active faith by love, or good works. If there be a gap betwixt faith and good works,

works, with reſpect to the proof of the latter proceeding from the former, not eaſily to be filled up, there will be as great an one between them when applied to practice, which will be an obſtacle to the ready paſſage from one to the other. According to this poſition, it would be difficult for a chriſtian who ſhould rely on faith as the only condition neceſſary to ſalvation, to convince himſelf of its connection with good works, or of the indiſpenſable neceſſity of them. And who would venture to ſay, that this is not a real obſtacle to good works?

For the ſake of perſpicuity, I will throw together in few words what has been already ſaid. It is moſt clearly expreſſed in the ſcriptures that faith and good works muſt be united in them who would be ſaved. If any one aſk me: what ſhall I do to be ſaved? I may anſwer: believe, and become righteous, that is, do good works. Thus I announce both as conditions equally neceſſary to ſalvation. It would be advantageous, in many reſpects, if I could ſhew the ſtrict connection of theſe two conditions; but it is not indiſpenſably neceſſary. For it is not leſs incumbent on us, as we hope for ſalvation, to exerciſe good works, becauſe we cannot ſhew how they proceed from faith. I might anſwer, indeed, by faith alone thou ſhalt become righteous, and be ſaved. But then I muſt ſo explain faith, that the origin of good works, or the obligation to them, and the capacity for them, ſhould be moſt clearly perceptible to him. If I cannot do this, my anſwer would be untrue and cenſurable; and if I can only perform it by means of much labour, ſkill, and ſcience, it would be defective.

I cannot apprehend that the idea I have given of faith is, in this reſpect, open to objection. I do not think one better adapted to practice can be contrived. But is it actually the idea of the holy ſcriptures, and not of philoſophy? In the firſt place, it ſeems to me to be ſupported by Chriſt's ſaying to Thomas: bleſſed are they that have not ſeen, and yet have believed. For hence it appears, according to my opinion, that confidence belongs to faith, and indeed confidence in the authority of a ſuperior knowledge, and its teſtimony. But Paul tells us that faith, in the proper ſenſe of the word, ſo far as it is diſtinguiſhed from what is held to be true, is juſtly oppoſed to ſeeing, either with the eyes, or with the underſtanding. *We walk by faith, not by ſight*, 2 Cor. v. 7. This is alſo confirmed by the definition of faith, Heb. xi. 1. *Now faith is the ſubſtance of things hoped for, the evidence of things not ſeen.* If faith be the ſubſtance, or ground of hope, it muſt be produced by the actual ſight of the thing hoped for, by reaſoning and our proper knowledge, or by the credible teſtimony of another. But that the latter is the caſe here, and that conſequently the apoſtle underſtands by faith a conviction of things unſeen, founded not on our own diſcovery, but on the aſſertions of a credible witneſs, and ariſing from our confidence in him, appears to me altogether inconteſtable: more eſpecially, if, as what precedes and what follows ſeem to indicate, we are not to underſtand by the unſeen things hoped for the happineſs of a future ſtate, which might, in ſome meaſure, be previouſly diſcoverable by the light of reaſon, but approaching liberations from temporal oppreſſions and perſecutions. For theſe the chriſtians could hope on no other grounds than their truſt in the promiſes of

Jeſus, and only ſo far as they relied on his word: thus confidence is here the principal idea of faith. This clearly appears, too, in all the inſtances of faith ſubſequently adduced by the apoſtle, particularly in what is ſaid of Abraham, ver. 8. *By faith Abraham, when he was called to go out into a place which he ſhould after receive for an inheritance obeyed; and he went out, not knowing whither he went.* He muſt have had an abſolute reliance, then, on the promiſes of God. Still more clearly is it expreſſed of Sara, ver. 11. *Through faith alſo Sara herſelf received ſtrength to conceive ſeed, and was delivered of a child when ſhe was paſt age, becauſe ſhe judged him faithful who had promiſed.* Of Abraham it is ſaid, ver. 17. that *he offered up Iſaac by faith*; and ver. 19. *accounting that God was able to raiſe him up, even from the dead.* Theſe are ſufficient examples of faith without ſight or knowledge, in which the believers held ſomething to be true, through confidence in the power, wiſdom, and goodneſs of God, which they had not ſeen, and which in their judgment muſt have appeared moſt improbable.

Though of the things which Chriſt has teſtified to us, either by his word, or by his actions and ſufferings, there are many that may be conjectured or inferred by reaſon, and which therefore, as it ſeems, we do not properly believe, or deem to be true from confidence in his word; ſo that the term *faith* is not ſtrictly applicable to them: let it ſtill be remembered that they are, and will remain objects of faith to the greater part of mankind, and muſt be believed by all who have not cultivated and exerciſed their reaſon, through confidence in credible teſtimony. This is no objection to my idea and uſe of the word faith. The queſtion is not what is capable of being diſcovered by reaſon, but what actually has been, or will be, by that of the majority of mankind. It is a moſt ineſtimable benefit of God, and a ſervice for which we can never be ſufficiently thankful to Chriſt, that the important truths of God's paternal affection to man, of a future life, &c. which ſome few philoſophers might have diſcovered by the help of reaſon, with more or leſs certainty, but which the far greater number of men would have remained ignorant of, or muſt have believed on ſlight authority, are, by means of a rational and well-founded faith, known to all, and rendered inſtruments of their improvement and conſolation. Thoſe important doctrines, which otherwiſe would have found a place in the religion of a few true philoſophers at moſt, may now be known by thoſe who are no philoſophers, and received into the eſtabliſhed ſyſtems of religion of whole nations, not weakened and disfigured by fables, not reſting on doubtful traditions, but clad in their original purity, and ſupported by rational principles.

The moſt ſpecious objection that can be made to the orthodoxy of my idea of faith, and which has actually been made by an ingenious friend of mine, is taken from the oppoſition betwixt faith and the law, betwixt the Moſaic and Chriſtian diſpenſations, which occurs in different parts of St. Paul's Epiſtles, and particularly Galatians iii. If faith, obſerved my friend, be a confidence in the judgment of a ſuperior guide, under the law it muſt have applied eminently to the Iſraelites, who were led by Moſes.

How

How then can the law be oppoſed to faith, or the Moſaic diſpenſation to the Chriſtian, as the principle of faith was equally neceſſary in both, and the Iſraelites were led by faith in Moſes, as the Chriſtians by faith in Chriſt?

Before I proceed to explain the paſſage on which this objection is chiefly grounded, permit me to obſerve that it does not follow from the apoſtle's oppoſing them to each other, that faith and the law are totally diſcrepant, and exclude each other, and that faith could not poſſibly ſubſiſt under the law. This oppoſition the apoſtle took from the notions and opinions of the Jews, with whom he was diſputing. They had made a diſtinction betwixt faith and the law; and it ſeems to me that St. Paul, in his diſpute with them, took up his ground on their miſtaken ideas, and not on the true nature of the caſe. For it is undeniable that obedience to the law, delivered from mount Sinai, was leſs founded on the proper knowledge of its followers, than was obedience to the precepts of the goſpel. Still that faith, that filial confidence which the goſpel requires of its followers, in God as their father, in Jeſus Chriſt his ſon, and in their elder and wiſer brethren, who were ſent forth to bring them into the right way, is not the ſame as the proper principle of obedience with the Jews. This appears, as I think, from the reproof which our Saviour gave the ſcribes and phariſees, Matt. xxiii. that, in all their ſcrupulous punctuality in fulfilling the letter of the law, they omitted *the weightieſt matters*, namely judgment, mercy, and *faith*. In my opinion, the word faith here very well admits its uſual ſignification, but by judgment we may underſtand either the virtue of juſtice, or judging rightly of things in the mind. Either will give the paſſage a good ſenſe, and agree with the context. Ye obſerve the letter of the law with the moſt ſervile and ſcrupulous exactneſs, in the moſt inſignificant trifles: but ye omit the moſt important matters. Moral virtue, which conſiſts in juſtice and mercy to your neighbour, and faith in God, which is the principle of all virtue and obedience, are wholly unheeded by you. Or, if judgment be rendered the act of judging rightly, the ſenſe will be: in your blind and ſervile obedience ye neglect ſound judgment, &c. It is certain that the Jews did not found their obedience to the law on a rational faith, and a filial truſt in God. They diſunited faith and the law, by ſeparating an outward obedience from that its proper principle, by making the ſign or external ceremonies of it the *opus operatum*, looking more to theſe ceremonies than to the intent from which they flowed, exalting a blind ſuperſtitious conformity to the rank of proper merit, forming no rational general plan of the whole of the obedience required by God to his commands, and thus, like ignorant ſlaves, ſuffering themſelves to be guided by the bare letter of the ordinances given them, without paying the leaſt attention to the general ſpirit of the law. They preferred every particular act of the law to its grand deſign: expected the reward of their blind and irrational obedience, more as an arbitrary recompenſe of each particular external act of it, than as a natural conſequence of a juſtneſs of ſentiment, or of the faith from which it proceeded, to which it led, and in which it ſhould be exerciſed; and, conſequently, ſhewed more

obedience

obedience to the poſitive, than to the proper moral precepts: in ſhort, they ſubſtituted ſuperſtition inſtead of faith. Taking it for granted that this was the way of thinking of the Jews, I conſider the apoſtle's diſpute with thoſe who embraced the Jewiſh notions, as the conteſt of reaſon againſt ſuperſtition: and thence I explain his oppoſing faith to the law. For with reſpect to men, who thought as the Jewiſh opponents of the apoſtle in my opinion did, faith and the law were actually oppoſites to each other, and he who would diſpute with them ſucceſsfully, muſt conſider the caſe in their point of view. We will now proceed to examine whether, on this ſuppoſition, the words of the apoſtle afford a natural and apt ſenſe, and were adapted to the purpoſe of refuting his antagoniſts.

Let it be remembered, that the grand point which the apoſtle had to ſubvert was this: the goſpel is unneceſſary, and of no uſe; it is a ſuperfluous innovation, as we may and muſt be righteous and ſaved by the law. Now it was an adroit, yet innocent artifice of the apoſtle, in his controverſy, to ſubſtitute, inſtead of the faith of the goſpel a diſputable word, and ſuſpicious to the Jews on account of its novelty, that which they already knew from the Old Teſtament, which ſignified ſomething the value, power, and efficacy of which they could not deny, as they muſt admit that Abraham was juſtified by faith, and that before the giving of the law it was the ſole mean of obtaining juſtification. Hence it is natural for us to expect that Paul, to make the greateſt poſſible uſe of this advantageous ſubſtitution of terms and ideas, would endeavour to unite and combine the ideas of faith and the goſpel, and ſo to modify the general idea of faith, that it might moſt eminently apply to it, and be preciſely determined by it; and on the other hand, that he would place the difference and contraſt between the law and the goſpel, or faith, in the ſtrongeſt light. The more he could do this with an aſſurance of truth, the more his cauſe gained; and what he was able to maintain, and to prove againſt his antagoniſts, from the teſtimony of the Old Teſtament, in favour of faith in general, and of Abraham's in particular, he might apply to the advantage of the goſpel. He reaſoned, perhaps, in this manner. The deciſion of the queſtion between us, whether a man can be juſtified and ſaved by the law, or another divine inſtruction be neceſſary, depends on the deciſion of another queſtion, namely, whether faith be a neceſſary efficacious mean ordained by God for obtaining acceptance with him. But that faith is ſo appears from this, that Abraham was juſtified by it alone, without the law, and that God required of him nothing but faith, that is, truſt in his promiſes, and ſubmiſſion to his guidance, imputing this faith to him as righteouſneſs. But they ſay, the law was given to us: yet, if faith alone were the inſtrument of juſtification, without the law, to what purpoſe does this ſerve?

To this the apoſtle anſwers in the words on which the objection is chiefly founded. *But before faith came, we were kept under the law, ſhut up unto the faith which ſhould afterwards be revealed*, Gal. iii. 23. He ſhews that the promiſes of God, and the ordinance of faith pertaining to them, were not removed by the intervention of the law: that

that the law, if rightly applied, prepared and led its rational and juſt obſervers to faith; and indeed to ſuch an enlightened, reaſonable, and filial faith as Abraham diſplayed, and as the goſpel diſpenſation required: that the law, if ſeparated from faith, and ſo conſidered and applied as it was by the Jews, could only kill, or announce damnation; that ſuch an obſervation of the law as the Jews held out could be of no avail: and that he who would be accepted by God, juſtified and ſaved, under the law, muſt unite faith with it, or his obedience muſt flow from a filial confidence in God, and be productive of righteouſneſs. Now all that the apoſtle proved in ſupport of the neceſſity and importance of faith, tended equally to ſupport the goſpel diſpenſation; as in fact the old ordinance of faith, which had been obſcured and miſconceived under the law, was only renewed by the goſpel, though renewed and confirmed with more clearneſs, and a more preciſe eſtabliſhment of the object in whom we ſhould truſt, and the promiſes which we were to believe.

But more particularly to explain the words of the apoſtle, Gal. iii. ſo far as they relate immediately to our purpoſe. The Galatians had departed from the goſpel to follow the law, or at leaſt were in danger of it. Paul repreſents to them, that through faith they were the children of Abraham; but that they muſt inherit the promiſes, through an imitation of that faith by which he inherited them. Ver. 7, 8, 9. *Know ye therefore that they which are of faith, the ſame are the children of Abraham. And the ſcripture, foreſeeing that God would juſtify the heathen through faith, preached before the goſpel unto Abraham*, ſaying, *in thee ſhall all nations be bleſſed. So then they which be of faith are bleſſed with faithful Abraham* The law (as you ſee and obſerve it) denounces a curſe; and whoever is ſo under the law, as you Jews are, to do the works of the law without faith, cannot be juſtified. *For the juſt ſhall live by faith*: that is, he ſhall owe his juſtification and ſalvation to his faith, or the rectitude of his opinions towards God. *The law is not of faith*, ver. 12. that is, the law, as you conſider it, confined to mere external acts of obedience, leads not to faith, not to an inward frame of heart and mind, but ſimply to obedience, or to matter of fact, for ſo I underſtand the words ſtrictly, "the man that *doeth* them ſhall live in them, ver. 12. *If the inheritance* be *of the law*, it is *no more of promiſe*, ver. 18. Faith relates to a promiſe, which it preſuppoſes: but a promiſe out of free grace, was unneceſſary, if the inheritance were a merited recompenſe and ſalary for the obſervance of the law. Therefore, the apoſtle infers, the inheritance came by promiſe, and this promiſe ſuppoſes and requires faith. *Wherefore then* ſerveth *the law*? ver. 19. A very ſeaſonable queſtion, to which the apoſtle here gives a ſhort reply, anſwering it afterwards more fully. *It was added becauſe of tranſgreſſions:* it relates to the ſinful and corrupt ſtate of mankind. The uncultivated brutal ignorance, immorality, and wickedneſs of the world rendered ſuch an ordinance neceſſary in the interim, to make men moral, and to ſhew them the difference between good and evil, right and wrong, in a manner adequate to their unpractiſed underſtandings, and capable of being comprehended by them,—*till the ſeed ſhould*

ſhould come to whom the promiſe was made,—till that great teacher, guide, and benefactor of mankind, with whom the promiſe was connected, ſhould appear, and his appearance could be productive of advantageous and happy conſequences. Is *the law then againſt the promiſes of God?* ver. 21. Or ſhould the original ſyſtem of God, the leading man to wiſdom, virtue, and happineſs, through faith in a divine guide, be annulled by this intervening ordinance? *God forbid: for if there had been a law given which could have given life, verily righteouſneſs ſhould have been by the law.* But this actually would have been the caſe, could the intervening law, as it gave moral inſtructions, have imparted the will, the power, and the capacity for fulfilling that ſyſtem, and thus obtaining life. If it really could excite a virtuous frame of mind, a filial diſpoſition to obey God, and a life of virtue, righteouſneſs, or a juſt and happy conſtitution of man, acceptable to God, would have come by the law. Such a power, however, the law poſſeſſed not, or at leaſt had never diſplayed. *The ſcripture hath concluded all under ſin, that the promiſe by faith of Jeſus Chriſt might be given to them that believe*, ver. 22.

The ſcripture, or the law, teaches us only what is right, and what is wrong, making known a number of offences, to the end that we, condemned as ſinners by the law, ſhould not expect our juſtification from the law, or from our obſervance of it (as it is impoſſible for us to fulfil it perfectly) but ſimply from the promiſe, and from an active effectual truſt in the promiſe. *But before faith came*, ver. 23. before the divine ordinance, which was to lead man to true juſtification and ſalvation through a filial confidence, and which we muſt ſuppoſe to have been enveloped and concealed under the maſs of external commandments and ordinances, was brought to light, and fully revealed, *we were kept under the law, ſhut up unto the faith which ſhould afterwards be revealed*—held, as it were, in a kind of ſlavery and bondage, that we might not fail of that end to which we were appointed, but to which we were yet incapable of being openly and directly led, on account of our infant ſtate. *Wherefore the law was our ſchoolmaſter* to bring us *unto Chriſt, that we might be juſtified by faith*, ver. 24. Both here and elſewhere they who were under the law are repreſented by the apoſtle as children, in a ſtate of pupillage (between whom and ſlaves there is no difference) as they were under the ſtrict eye of a maſter, who muſt watch and guide their every ſtep, and not left to themſelves. This ſtate of pupillage, indeed, is not altogether unlike the ſtate of thoſe who are led by faith: it differs from it, however, as that of children wholly untutored, from that of children ſomewhat grown up. The former muſt conſtantly be led by the hand, under the maſter's eye, no general principle of action can yet be held out to them, no general precept including many caſes can yet be given them, but in every particular inſtance they muſt be told, as the Jews were by the law, do this, touch not that, &c. The latter, it is true, muſt alſo be led, and ſupply the deficiencies of their own knowledge, by a confidence in that of others: but they are now worthy of ſtanding in their Father's ſight, and are capable of receiving general principles of action. They have ſufficient judgment to know that they muſt ſuffer themſelves

themſelves rationally to be guided to their good through a truſt in their Father. General precepts may now be given them, and more of the wiſe and affectionate purpoſes of their Father may be laid open to them, as their underſtanding has acquired a certain degree of maturity. They are no longer to be governed as the infants (the Iſraelites under the law) by the immediate and inſtant impreſſions of hope and fear, but by the proſpect of future pleaſures and pains, and diſtant happineſs or unhappineſs. They are capable of the noble ſentiments of gratitude, reciprocal love, and true filial confidence, which cannot well take place in infants.

This is the ſtate attained by the believing chriſtians, and ſo ſtrikingly different from the ſtate under the law, that though a certain faith be deemed neceſſary under the Moſaic diſpenſation, it is no way to be compared with that required by chriſtianity. (Let it be obſerved that the majority of the Iſraelites are here ſpoken of, for the more eſpecial friends of God, a Moſes, an Aſaph, a David, and ſome others, had already that faith which a chriſtian ſhould have, with reſpect to its nature at leaſt, though the knowledge of its object was not ſo fully unfolded to them.) The faith under the law was that of an infant, or ſlave, to his preceptor, or maſter, founded chiefly on fear: the faith of the chriſtian is a rational confidence in a Father, and in an affectionate guide given him by that Father, founded on gratitude, and reciprocal love.

Notwithſtanding this difference, the faith under the law, that blind and ſlaviſh rather than enlightened and filial faith, was an introduction to the rational and filial religion of the goſpel. This introduction was made cautiouſly and preparatorily in the following manner. In the firſt place, as mankind, and particularly the Jews, were yet too feeble to be led to fulfil the purpoſes of God by a rational and filial faith, this intermediate ſtate was neceſſary to teach them morality, and give them ſtrong religious impreſſions of right and wrong. It was neceſſary to awaken in them an attention to the different conſequences of various thoughts and actions, that they might regulate their conduct by an attention to thoſe conſequences. In the ſecond place, it was neceſſary to keep weak and ignorant men under wholeſome reſtraint, that they might not fall into brutal ignorance, atheiſm, and a denial of Providence, or into wild and diſſolute ſuperſtition and polytheiſm. This the apoſtle particularly points out by the appellation of a ſchoolmaſter. Thirdly, whilſt the law, ever threatening, noticed ſin by its ordinances, and particularly by its ſin and treſpaſs-offerings,* denouncing as criminal errors, or failings, partly unavoidable, partly not puniſhable as civil offences, it was eſtabliſhed as a ſymbolical leſſon, adapted to the underſtandings of mankind at that period, to teach them the effects, guilt, and perniciouſneſs of the ſlighteſt tranſgreſſion. Thus, whilſt it was appointed to teach men the exiſtence of ſin, it prepared them for a more ready reception of Chriſt, and his doctrine of penitence and forgiveneſs of ſins.

* Theſe ſin and treſpaſs-offerings, ſetting aſide their typical nature, ſeem to have been chiefly a kind of eccleſiaſtical pennance, by undergoing which the offender was excuſed from a ſlight ban, or excommunication.

Let us ſuppoſe that men had no idea, or at moſt a very confined and imperfect one, of morality, and of the guilt and perniciouſneſs of immoral conduct, acknowledging perhaps only ſome extremely great crimes as injurious and deſerving puniſhment; they muſt neceſſarily be more cold to the enunciation of grace and forgiveneſs, which in their opinion they did not want, more inſenſible to the call to amend their thoughts and actions, and diſpoſed to conſider the goſpel requiſites to ſalvation as extremely rigid and overſtrained. Here holds the ſaying of the apoſtle: *the natural man*, that is the merely ſenſual, uninſtructed, uncultivated man, whether on account of any thing that may be deemed his own fault, or of the circumſtances in which he is placed, *received not the things of the ſpirit of God: for they are fooliſhneſs unto him: neither can he know* them. An underſtanding cultivated and enlightened, in a certain degree, is neceſſary to a rational conviction of the truths of chriſtianity. *Becauſe they are ſpiritually diſcerned:* they muſt be judged by reaſon. On this account I am inclined to believe it is that the Malabars, North Americans, Hottentots, and other wholly uncivilized nations are ſo deaf to the preaching of the goſpel: though I do not conſider it as the ſole cauſe of the difficulty, nay almoſt impoſſibility, of convincing them of the truths of chriſtianity in a rational manner. They want that degree of cultivation neceſſary to their finding the goſpel worthy of acceptance on rational grounds. How far the more civilized nations, as the Greeks and Romans that were converted to chriſtianity when the goſpel was firſt preached, were prepared, and received the neceſſary ſuſceptibility of the pure and rational religion of Jeſus by other diſpenſations of the Divine Providence, I ſhall not here inquire, as it would carry me too far. Still it appears to me probable that the benevolent and impartial Father of mankind did not leave them without ſome means to this purpoſe, making up to them the want of the Moſaic diſpenſation and inſtruction by other preparatory helps, ſo far at leaſt that they alſo might receive the roots of chriſtianity; as it is declared that the heathen have fellowſhip in the goſpel, and that chriſtianity ſhould be the religion of all men, not of a particular people, or a national religion, as all at that time known were. Thus the ſtock of the tree, the branches of which were gradually to overſhadow the whole earth, after its inhabitants, by the cultivation of their reaſon and morals, were become capable and worthy of enjoying its wholeſome fruit, and refreſhing themſelves under its grateful ſhade, muſt at leaſt have been capable of being planted amongſt the heathen.

Laſtly, This ſtate of privilege under the law, wherein the Iſraelites were confined to a ſlaviſh obedience, and tied down by the whole of their religious ſyſtem to blind ſubmiſſion, whilſt every thing was preſcribed to them, and nothing left to their own judgment, prepared them for a ſtate, in which obedience it is true was required, yet not the obedience of a ſlave, but of a child, who obeys from confidence in a wiſe and affectionate father; who obeys, becauſe he is aware that his obedience is neceſſary and advantageous to him; who obeys, becauſe he perceives that this filial obedience and confidence in his father's commands are the beſt and only means of augmenting and extending

extending his virtue, knowledge and happineſs. In this view the law may be compared with the difficult and laborious exerciſes impoſed on the learner of any art, in which he is left to ſurmount greater difficulties than occur in actual practice, that his abilities may be rendered capable of the greateſt exertions. In this view perhaps it was that Jeſus termed his religious ſyſtem an eaſier yoke, and a lighter burden, compared with the yoke of ceremonies, and the weight of ordinances under the law: and the apoſtle repreſents the chriſtians who are freed from it as perſons arrived at a ſtate of reſt.

Let me alſo obſerve that, in my opinion, the apoſtle Paul, when he ſpeaks of the Moſaic diſpenſation, with all its rites and injunctions, as a ſhadow of what was to be, the ſubſtance of which was in Jeſus, and on this ground urges the abolition of the law, meant principally that the religion of Moſes was a preparation and introduction to the more perfect religion of Chriſt, in the manner above related. At leaſt the ordinances relative to unclean meats, new moons and ſabbaths, could not properly be ſo deemed in any other ſenſe. And as it is ſo clearly ſaid that theſe were ſhadows of a future ſubſtance, we may preſume from analogy that all the reſt of the Moſaic ordinances could not be ſo in a more exalted or efficacious ſignification. How far the ſacrifices were an exception to this, and, conſidered as types, were preparatory in a higher ſenſe, I will not at preſent take upon me to determine.

From the explanation I have given of the words of the apoſtle that have been objected to me, it appears to me, that, far from contradicting my idea of faith, they tend to confirm it. But, whilſt I make confidence the firſt and original idea of faith, I by no means deny that in the apoſtolical writings faith often implies the general belief and practice of chriſtianity. My endeavour has been rather to ſhew in what manner the word faith muſt have acquired this general ſignification, by means of a juſt connection with its original more limited one. Neither have I the leaſt doubt, but this developement of the idea will enable any one to underſtand aright every particular paſſage in the writings of Paul, where faith and the law occur in oppoſition to each other.

If it be aſked, what truths are properly the objects of a chriſtian's faith; I would anſwer, that, from the nature and deſign of chriſtianity; all thoſe truths, in an eſpecial if not excluſive ſenſe, appear to be ſo, the knowledge of which makes us capable, fit, and ready to receive Chriſt as our guide to conduct us to God, to religious virtue, and to true happineſs, giving ourſelves up to his direction, and following his inſtructions. Firſt of all, then, they include all that we muſt ſuppoſe of Jeſus to confide in him as a truſty and divine guide, and every thing by which he has confirmed his claim to our confidence. What theſe things are I have already pointed out, when ſpeaking of the rational grounds of faith. As he has aſſerted that he was ſent by God to man, with full powers and authority, to be the light and life of the world, for which purpoſes he announced himſelf, we have only to admit the truth of his aſſertion on rational grounds. If this be the caſe, an exact and perfect knowledge of the exalted and myſterious relation he bears to our heavenly Father is not *abſolutely neceſſary*, to oblige us to the ſtricteſt

exerciſe of that in which he frequently makes the whole duty of his followers to conſiſt, the hearkening to his voice, and keeping his word. I will not preſume to ſay that, if we were capable of diſcovering ſomething more clear and accurate reſpecting that relation, and it could be made intelligible to us by juſt images, or analogous and proper expreſſions, it would not tend, not to the ſatisfaction of a laudable curioſity merely, but to the ſtrengthening of our faith in him, and increaſe of our reverence for him. It may be a duty, therefore, for thoſe who have capacity and leiſure enough, to enter on this deep and myſterious inveſtigation, that they may extend their knowledge by a diligent and humble inquiry. But I once more repeat that is not, in my opinion, *abſolutely neceſſary* to our believing in Jeſus, and being ſaved through him, that we ſhould have a perfect, clear, and determinate conception of his proper nature; if we but know in what relation he ſtands to us; and if we but thoroughly believe that he is endowed with divine wiſdom, virtue, and power ſufficient to accompliſh what he was to perform for us, and that we muſt hearken to him as we would hearken to God, and ſo honour the Son as we would honour the Father. And this, I think, is ſo clearly and frequently ſaid in the New Teſtament, that we muſt deem it a divine teſtimony of Jeſus, and believe it on that teſtimony, though we cannot attain to this conviction by inquiring into the nature of Jeſus, an inquiry beſtrewed with metaphyſical ſubtilties, whilſt after all, as others have already obſerved,* it gives no more certainty or ſatisfaction with reſpect to our juſtification, than the mere belief in the above-mentioned teſtimonies of God concerning Jeſus, as whatever we infer relative to his nature muſt be in like manner founded on teſtimonies of ſcripture, and not derived from logical truths.

If then ſuch ſpeculative queſtions and diſputes may be ſet aſide, without detriment to the practical religion of Jeſus, I would divide the doctrines and truths which form the proper object of chriſtian faith into thoſe which deſcribe to us and elucidate the ſentiments, virtues, and perfections of chriſtianity, and thoſe which include all the motives or inducements we have to endeavour after thoſe ſentiments, virtues, and perfections. To the firſt claſs belong all the commands and precepts given us by Chriſt, partly in expreſs words, partly in his conduct and example, which, as he was the declared image of God, have to us the force of laws. Though many of theſe precepts were ſuch as might have been, and actually were, diſcovered by the reaſon of many philoſophers unclouded by prejudice, both before and at the time of Chriſt's appearance, yet there were ſeveral, ſuch for inſtance as thoſe relative to purity of deſires and manners, love of our enemies, &c. which he firſt announced. Thus theſe were

* See the excellent tract on the utility of the office of a preacher, and the qualifications for it, *Ueber die Nutzbarkeit des Predigamts, und deren Beforderung*, S. 146. where it is ſaid: "after all my notions concerning the perſon of Chriſt, I muſt at laſt rely on the teſtimony of the holy ſcriptures (ſuppoſing that my notions actually agree with them) as I before relied on the promiſes of the goſpel for the forgiveneſs of my ſins."

objects

objects of faith to the wiſer few, as well as to the many, whoſe uncultivated underſtandings could embrace ſcarcely any part of morality except through faith.

With reſpect to thoſe of the ſecond claſs, many diſcordant notions prevail amongſt chriſtians. In my opinion, however, they might eaſily be reconciled, or, at leaſt, the diſputes concerning them would be conducted with leſs heat and animoſity, if all were agreed on the principle that theſe truths have no intrinſic value and importance, but are ſo far valuable only as they are motives and aids to chriſtian rectitude. If this be admitted, it is clear that, according to the diſpoſitions and different ways of thinking of men, this or that notion of Chriſt's merits towards us will make an impreſſion on one, which it will not on another; and this or that ſuppoſition would produce an effect in one, of which in another it would fail. To make this clear by an example, which relates to the point in queſtion: he who conſiders his former diſobedience to the commandments of God as an immediate offence to his divine majeſty, and indeed an offence infinite in degree, may conſider faith in a proper atonement of the offended and wrathful Deity by the blood of Jeſus neceſſary to a peaceful aſſurance of forgiveneſs. Now it is obvious that, whilſt he thinks the former, he muſt believe the latter, in order to be at peace, and to have courage to ſet about a freſh obedience. Thus it ſhould ſeem the Jews, at the time of the apoſtles, who were accuſtomed to bloody ſacrifices, and conſidered the principle of the law, that there was no forgiveneſs without ſhedding of blood, as an eternal and immutable principle of God's government, might be ſooner reconciled to chriſtianity, by which all ſacrifices were aboliſhed, when the apoſtle repreſented to them the death of Jeſus, which he ſuffered for the good of mankind, and on account of their ſins, and which was in this view a ſacrifice, as the great treſpaſs-offering, by which all was at once accompliſhed.*

On the other hand, if a man conceive ſin and diſobedience to be not ſo properly an offence againſt the immutable, all-ſufficient, and ever bleſſed God, as a real calamity to the ſinner, and an offence againſt himſelf: if his idea of the puniſhments of God be, that they are of no ſervice to maintain the divine majeſty, or ſatisfy his vindictive juſtice, repreſented too much like that of frail man, but that they are ordered, and neceſſarily ordered by infinite goodneſs, for the benefit of ſinful man, to warn him of his errors, and recall him from them, and conſequently are to be con-

* Very different is it in this reſpect with the Jews of our days. As they have long deſiſted from offering up ſacrifices, and this part of their worſhip is fallen into diſuſe, they can no longer deem ſacrifices an indiſpenſable condition of the remiſſion of ſins. Hence repreſenting to them that Jeſus was the great ſin-offering for the offences of mankind does not make an impreſſion upon their minds advantageous to chriſtianity, as they perceive not the neceſſity of ſuch an offering. They believe that God can and will forgive ſins, without being moved to it by a ſin-offering, from his inexhauſtible mercy. To this, and not to any ſacrifice, they think they muſt have recourſe. Thus the repreſentation of the death of Jeſus as a proper atonement to divine vengeance is ſo far from being calculated to render chriſtianity more pleaſing and acceptable to the preſent Jews, that it tends rather to confirm all their prejudices againſt it.

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ſidered as means, not as ends: he may conſider the death of Jeſus as neceſſary, but only on this account that God might give us a firm aſſurance of his readineſs to forgive ſins, and excite us to embrace the comfort ariſing from that forgiveneſs, and to ſtrive after a grateful truth and obedience. The merits of Chriſt, and eſpecially his death, would be deemed important and be reverenced by a chriſtian of this way of thinking, though he could not convince himſelf that he ought to underſtand literally ſuch expreſſions of ſcripture as, the blood of Chriſt cleanſes us from all ſin, we are reconciled to God through the death of his Son, the Lord took all our ſins upon himſelf, &c. or though he could not conceive that the imputation of the ſins of another, or of the obedience and righteouſneſs of another, taken in a ſtrict ſenſe, accord with the mercifulneſs of God. Such a chriſtian, however, muſt believe that all which Chriſt did and ſuffered was highly meritorious, that all his ſervices to mankind were crowned by his death, that this was a moſt magnanimous ſacrifice, and, in ſhort, that Jeſus did for us every thing that one man could do for another. He would find in the death of Chriſt incitements to the moſt heartfelt gratitude towards him, and to an imitation of his conduct, if his notions of its deſign, utility and neceſſity were ſomewhat like the following. In the firſt place we will ſuppoſe him to believe, on the divine authority, that the Lord of our ſalvation was to be made perfect by ſuffering death; or that Jeſus could not have been our ſuccour, in the moſt extenſive ſenſe in which we need ſuccour, if he had only been born and lived for us, without dying for us alſo. He would find it highly proper that he, who was intended for a pattern to creatures that could only be made happy by ſufferings, ſhould, as the leader of mortal man, go through ſufferings to dominion, and guide them through the gloomy path of death: a leader, from whom they ſhould learn, with unſhaken reliance on the aſſiſting and ſupporting grace of their heavenly Father, to go through all the toils and afflictions of this life, and to ſubmit to that painful and terrible ſcene which even his beloved Son could not eſcape. He would find it highly meet that Jeſus in death ſhould exhibit a pattern of thoſe magnanimous ſentiments and virtues, by the imitation of which we might exalt and ennoble an event ſo humiliating to man. Moreover, the death of Jeſus would appear to him a matter highly conducive to his peace and comfort, when connected with his return to life and reſurrection, which ſo quickly followed. It would then be to him the moſt certain proof of the truth of what he ſaid to all who believe in him: *I live, that ye alſo might receive life.* In his opinion our heavenly guide would thus, in his moſt perfect life, and eternal eſſence, have ſhewn his followers what they had to hope and expect. Conſidering how neceſſary the well-founded hope of a happy immortality is to excite and promote chriſtian virtue; conſidering that all other motives would have little or no effect on the human mind, that all muſt ultimately centre in this hope, and receive from it their chief force; he would think the queſtion, why Chriſt ſhould die, ſufficiently reſolved if he knew no other anſwer. It was neceſſary for him to die that he might ariſe again; and for him to ariſe again,

again, that he might convince, by an actual proof, adapted to their underſtandings, the immenſe number of thoſe who are incapable of being perſuaded of a future ſtate by probable or ſolid arguments; remove all diſtruſt of this moſt beneficial and important truth from the minds of the more thinking; and place the authenticity of his divine miſſion, and the validity of his doctrines, beyond the reach of doubt. Probably he would imagine that the death of Jeſus might be conſidered as a natural event, perfectly according with the circumſtances of the times, and the ſtate of the Jews at that period. Conſidering the religious notions and opinions that prevailed amongſt that people, their elders, and men of learning, at the time of Chriſt's coming; he might believe that ſuch a reformer, who combated their deareſt prejudices; ſtripped off the maſk from hypocriſy and ſuperſtition; preached, inſtead of mere outward ceremonies, the worſhipping God in ſpirit and in truth; inſtead of a corrupt and mutilated morality, pure rational virtue; inſtead of a blind religious zeal, and a partial love and benevolence confined to men of the ſame way of thinking, an enlightened zeal for God, and univerſal philanthropy; teaching men, to expect the proper reward of virtue in the internal happineſs reſulting from goodneſs of heart; the ſentiment of acceptance with God, and the nobler pleaſures of a future and better ſtate, inſtead of the temporal and external advantages of this world; and acting in a manner diametrically oppoſite to all their earthly hopes and expectations; could not, without a miraculous interpoſition of Providence, have experienced any other fate than that of Jeſus. Thus, would he conceive, muſt he have been hated, perſecuted, and put to death. Why then, would he aſk, ſhould Providence have prevented, by a miracle, this natural event, when it ſerved to confirm the uprightneſs and truth of Chriſt, whoſe ſufferings and death ſerved to diſplay his excellent and divine character, and place it in the ſtrongeſt and moſt pleaſing light? When beſides, his perſon muſt become more worthy, his moral character more eſtimable, and his merits more important and affecting to mankind, by what he ſuffered as their benefactor and ſaviour; whilſt thus redeemed man muſt be drawn and knitted to him by the ſtrongeſt ties of gratitude? Muſt not truth, wiſdom and virtue be profited by whatever tended to promote a reverential eſteem, heartfelt gratitude, and lively thankfulneſs for the bloody ſacrifice of our Redeemer? Can we love, admire and adore the moſt perfect pattern of wiſdom and virtue in human nature, not from eſteem merely, but, as he gave his life for us, from gratitude, without being moved to imitate his virtue and goodneſs? Why ſhould Providence have miraculouſly interpoſed to prevent the ſufferings and death of Jeſus, when they could not but excite, in the minds of thoſe who believe in him, an abhorrence of thoſe moral evils which occaſioned them, and from the dominion and conſequences of which nothing but the ſacrifice of himſelf could deliver the ſinful world? Such a chriſtian as we are deſcribing would naturally conclude: a ſtate, from which nothing but the extreme abaſement, and moſt magnanimous ſacrifice of ſo eminently exalted a perſon could emancipate us, muſt have been in the higheſt degree corrupt,

corrupt, perilous, and deſtructive: an evil, that could require ſo dear a remedy, muſt have been a great and moſt deteſtable evil.

Now let theſe notions ſtand or fall by their intrinſic worth. It will be of the higheſt importance, to inquire into their efficacy with reſpect to promoting diligence and zeal in the cauſe of virtue, and an imitation of Chriſt, which is ſo ſtrongly inculcated in ſcripture. To ſhorten this inquiry, let us compare what he has done and ſuffered for the good of mankind, to the endeavours of a magnanimous and benevolent man, who ſeeks to deliver his loſt unhappy brother from the hands of thoſe by whom he has been led to perdition.

Let us ſuppoſe it neceſſary to this purpoſe, not only that the good brother ſhould open the eyes of his ſeduced kinſman to his errors, ſhew him the abyſs into which he had fallen, and into which he would plunge ſtill deeper, point out to him the better way in which he ſhould go, and excite him to break his diſgraceful chains; but that his endeavours to deliver this brother ſhould expoſe him to the hatred, malice, and perſecution of his ſeducers, all the effects of whoſe enmity and rancour he muſt undergo; and in ſhort, that he can only ſave his brother at the peril of his own life. If now he reſolve to ſubmit to all this, and ſteadfaſtly purſue his affectionate purpoſe, undeterred by toil, danger, and contumely, what muſt we naturally expect from ſuch an heroic inſtance of unconquerable greatneſs of ſoul? Will not he who is delivered, if he have a lively conception of what his brother has done and ſuffered for him, conſider his former blindneſs and error with more inward ſorrow, ſhame, and repentance, the more it coſt his deliverer? When he reflects that his brother, regardleſs of himſelf, ſacrificed his eaſe and reputation; when he views the ſcars and wounds on his body, the conſequences of his benevolent undertaking; how will the feelings of his mind, that would otherwiſe have remained inſenſible, be awakened! However torpid his ſenſibility might hitherto have been, will he not be moved and excited to the moſt lively gratitude towards his deliverer, to admiration of his benevolent and virtuous diſpoſition, and to a reſolution of purſuing the path to which his brother has brought him back? If we can think this; and if it be difficult to find another way in which a man can be more naturally and certainly excited to good, than this, which engages every moral motive in the cauſe of virtue; the notions of the chriſtian above deſcribed cannot be detrimental to chriſtianity in a practical view, whatever may be thought of them in other reſpects. Under the promiſed acceptance of God, he would perform, incomparably better, his duty to his divine benefactor, the ſeeds of which already exiſted in his nature. He would think it the more unneceſſary that the univerſally beneficial death of Jeſus ſhould be prevented by a miracle, as permitting it was no injuſtice to him who ſuffered it willingly, and God could fully compenſate all his ſufferings by the moſt glorious reward.

Such perhaps would be the notion of the deſtination of Jeſus, and the deſign and uſe of his ſufferings and death, formed by one who could not reconcile the ſyſtematic opinion

opinion of a particular mediation and atonement with his ideas of God, his attributes, his paternal relation to man, the intent of punishment in general, and of that of a father in particular. We will not determine, whether such a notion be sufficiently complete, and comprise the full meaning of those passages which mention the destination of Jesus, and the purpose of his death: as it hitherto remains undecided, whether, on account of certain difficulties, we be authorized to reject the literal meaning of such passages, and, laying aside some particular modes of expression, confine ourselves to the general point, that the sufferings of Christ were beneficial to mankind, and a source of salvation. This, however, I think may be maintained that, with such a notion, defective as it may be, a christian, whose way of thinking is as we have above described, may possess a faith in Christ, capable of quieting his mind, and amending his heart. He may possess a faith not derogatory to the fundamental truths of the christian religion: believing that God and the Father of our Lord Jesus Christ is also the Father of all men; that he has and shews paternal sentiments, purposes, and determinations with respect to them; and that owing to this paternal love he sent them his Son, to bring them back to himself, to a knowledge of truth, to the love and exercise of virtue, and to eternal happiness: believing that the Son effected this partly by the information, that God was their Father in the most comprehensive and consolatory sense, that he would forgive all past disobedience, if succeeded by repentance and obedience, that this obedience consisted in the practice of his injunctions and the imitation of his example, that the ceremonial religion of the Jews was abolished, that worshipping in spirit and in truth, or faith made active through love alone was of any avail, and that a spiritual, heavenly, and eternal felicity would be the reward and inheritance of his faithful followers; and partly by his whole life, his conduct, his fate, his death and resurrection, in which he not only confirmed his mission in the clearest manner, but performed every thing necessary to reconcile man to God, that man himself could not perform, removed every obstacle which he himself could not surmount, and by his spirit gave them all the excitement, hope, assistance, and support necessary to their following him with truth and steadfastness. I will not presume to deny that these fundamental doctrines of christianity may be farther developed, and more precisely determined. How they are displayed in theological systems, according to different confessions of faith, is well known to every learned reader. But let me observe, my design is only to illustrate my text by a few remarks, not to write a system of theology. I shall now, therefore, return to our author, and examine how the idea of faith here given may be reconciled with what he says on the subject.

In the first place: *faith is the means through which we shall not perish, but have everlasting life.* If by faith in Christ we understand an active efficacious confidence in him, according to the relation in which he has revealed himself to us, so that this faith is the ground of our amendment, as well as of our assurance: a faith in him, not only as the messenger of God's forgiveness, but as a mediator, and a guide to the actual enjoyment

of it: nothing can be more ſuitable to man's nature, or conducive to the end, than God's deſign of bringing man to eternal life through faith in Chriſt.

Secondly: *By means of faith in him our ſins will be forgiven, and the puniſhment of them will be averted.* This forgiveneſs is actually his work, either as he effects it with God for us, in the proper ſenſe, and reconciles him to man, or as he gives us an aſſurance of the divine forgiveneſs, and renders us capable of enjoying it; and our faith, this active truſt in him, is, on our ſide, the mean by which we become partakers of the divine beneficence.

Thirdly: *Faith in Chriſt the righteous will ſupply the place of that righteouſneſs, and ſinleſs perfection, to which we cannot attain.* It may be ſaid of the chriſtian's faith in Jeſus, that it ſupplies the place of perfect righteouſneſs, in the ſame ſenſe, and with as much juſtice as we might ſay of an infant, that all his duties and virtues conſiſt in an obedient confidence in his wiſer and affectionate parents, and in ſubmiſſion to their neceſſary and ſalutary guidance. The more perfect the child's confidence in its parents and their inſtructions, and the chriſtian's in Chriſt and his precepts, the better each fulfils his duty, is obedient and virtuous.

Fourthly: *Yet this faith doth not make void the law, but eſtabliſhes it.* This our author ſeems to advance as a limitation. But according to the idea I have given of faith it requires no ſuch limitation, no caution againſt its abuſe. For our faith muſt be thoroughly active, ſince the ultimate end of Chriſt's coming into the world was to make us good and happy. As little neceſſary was it to obſerve that *a mere aſſurance, or ſtrong perſuaſion of a man's own ſalvation, is neither a condition, nor a pledge of it.* For this aſſurance is not an active faith in Jeſus, our guide. In fact, I have no confidence in a guide, who could and would conduct me to the deſired place, if it be not active, or if it do not impel me to follow him. An aſſurance or perſuaſion that he could conduct me rightly, however ſtrong it may be, or however I may intend to honour him by it; or the idea, however lively, that he has already led me to the place, though I have not yet taken a ſingle ſtep; is mere ſelf-deception, and not that confidence which I ought to have in him. On the contrary, ſuch a confidence is by no means inconſiſtent with the doubt whether I be diligent, active, and indefatigable in following my guide, or whether my confidence be ſufficiently efficacious. Thus it is very poſſible that a chriſtian may have a ſaving faith, an efficacious truſt in Jeſus, without an abſolute aſſurance of his being in a ſtate of grace. This doubt, however, can only conſiſt in a man's objecting to himſelf that he is not ſufficiently diligent and zealous in his faith, and in the love and practice of what is good. Hence it is obvious, that a chriſtian, who demonſtrates his faith by imitating Jeſus, has little cauſe to doubt of his being in a ſtate of grace, becauſe he has not ſuch lively feelings of love towards Chriſt, and joy in him, as he might wiſh. He who truly and indefatigably follows his guide, may reſt aſſured that he will be led right by him, and that he poſſeſſes the neceſſary confi-

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dence in him, though he may wiſh this confidence accompanied with more joyfulneſs, and with more lively ſentiments of love and gratitude.

Fifthly: *The advantage of faith is, that, by its means, the righteouſneſs and death of Chriſt will ſave us from our ſins.* If this be conſiſtent with the foregoing, faith in Chriſt the righteous, who has given himſelf for us, not only comforts, but ſaves us: that is, we muſt believe Chriſt was righteous for us, not to impart to us his righteouſneſs, but to recommend righteouſneſs to us in the moſt powerful manner, to deter us from ſin, to diſplay to us the odiouſneſs of its form, &c. When all that he did and ſuffered is conſidered in this way, particularly in a moral view, we are actually ſaved from our ſins, through faith in his righteouſneſs and death. How they have made this poſſible in general may be left undetermined. It is ſufficient that all parties admit that our faith actually muſt do ſo, inaſmuch as we are thereby placed in a ſituation to attain our imperfect righteouſneſs, or to be as good, and as obedient to God as is poſſible in the preſent ſtate of things. Our author farther places the advantage of faith in this, that *it is propoſed by the ſcriptures as the means appointed by God for rendering imperfect righteouſneſs equivalent, in his ſight, to perfect, and even of transforming it into perfect.* Where God perceives in man the active principle of obedience, and the elements of righteouſneſs, that is, faith in our preſent ſtate, he ſees the inevitable good conſequences which will extend to all eternity. So far is true faith, in his ſight, equivalent to perfect righteouſneſs; as it contains the principle, ſeed, and origin of it. Its conſequences will ſtill continue to increaſe and extend themſelves. Thus virtue, proceeding from faith, and founded on the infallible knowledge and juſt direction of God, muſt ever be growing more perfect; eſpecially as faith tends to increaſe and rectify our practical judgment, and to bring both it, and the will joined with it, more nearly to coincide with the judgment and will of God. The more this happens, the more are we capable of loving and doing, from our own knowledge, that good which we had hitherto loved and practiſed from confidence in God; and our advancement towards perfection will be more ſpeedy, and our propenſity to virtue more firm and unalterable, when we no longer walk by faith, but by ſight.

Sixthly: *Faith improves righteouſneſs, and again every degree of righteouſneſs is a proportional preparative for faith; and, if it do not produce faith, will end in ſelf-righteouſneſs, and ſatanical pride.* That faith improves righteouſneſs is obvious, as, in want of practical knowledge, the knowledge of God made ours by faith, not only improves righteouſneſs and religious virtue, but produces them. But as faith moves and excites us to follow the divine precepts; in proportion as we practiſe the obedience excited by faith, we ſhall experience, and feel an inward conviction, how neceſſary and advantageous it is to us to have ſuch an active confidence in God. If, however, we be not more diſpoſed to faith by ſuch experience, and more ſtrongly moved to truſt in God, and give ourſelves up to his direction; we cannot acknowledge him to be a good and truſty leader: we muſt fall into ſelf-righteouſneſs; oppoſe our judgment to his; imagine that we are capable of directing ourſelves; rebel againſt his will; and, with ſatanical pride, ſeek to be independant of him.

PROP. CXCIV. p. 557.

General Reflections on the final Happineſs of Mankind.

Our author, in his endeavour to prove the probability of the final happineſs of all mankind from the ſcriptures, notices the moſt important paſſages that tend to ſupport his argument. Avoiding a ſimilar inquiry into particular texts of ſcripture, I ſhall content myſelf with adding ſome general remarks on the ſubject; preſerving the ſame impartiality, as when, in an addition to a former propoſition, I exhibited the arguments that might be deduced from reaſon both for and againſt the ultimate happineſs of all men, without offering any deciſion of my own.

I ſhall firſt obſerve that particular paſſages of ſcripture appear abſolutely to favour the common opinion of the total rejection, and endleſs miſery, of thoſe who leave this world unbelieving and unamended; and that theſe paſſages appear to be more weighty, as well as more numerous, than thoſe which favour the oppoſite opinion. Thus whilſt both ſides reſt their proof on particular paſſages, the advocates of the common opinion have ſome advantage over their opponents, and the latter can act only on the defenſive, ſeeking to ward off the blows that they cannot return. On the other hand, if the diſputants add to their inquiry into particular paſſages, the conſideration of the general purport of the chriſtian revelation, the ſcriptural repreſentations of the univerſal benevolence and paternal love of God, the deſign of our redemption by Chriſt, &c; or if the ſtrength of the expreſſions be brought to the teſt of reaſon, by it to be confirmed or ſoftened; the oppoſers of that opinion will have the vantage ground. Probably the queſtion might ultimately be decided in their favour, if they could prove that the general purport of revelation, and the fundamental notions it gives of God, his attributes, deſigns, and relation to man, muſt avail more than particular paſſages, in reconciling contradictions not eaſy to be removed. In this caſe, the paternal relation of God to man, which is the foundation of all chriſtianity, would ſeem a ſufficient ground for rejecting the ſtrict literal ſenſe of paſſages militating againſt it, and ſacrificing them to the general purport of the ſcripture. God promiſes, would the defender of the final happineſs of all men ſay to himſelf, to ſhew infinitely more mercy, patience, grace, and forgiveneſs to man, than the moſt affectionate father can ever ſhew to his child. How can I reconcile this paternal love and mercy with the threats of eternal puniſhment, and total rejection? Can I ſuppoſe that ſuch a father as God declares himſelf to be to mankind, will allow his ſon, who is all his life-time under his eye, and the influence of his paternal authority, not a few years, but at moſt a few days of probation; his good or bad conduct during which is to decide the whole of his future fate, which depends on his father? Can I imagine that he has ſo limited

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to the ſhorteſt period his ſon's poſſibility and capability of meriting his father's love and reward, or hatred and puniſhment, and in a certain meaſure his whole moral nature, that beyond it no change of his heart to good or bad can follow, or, if it did, could produce no alteration in his fate? Can I believe that a wiſe father would thus permit the total happineſs or miſery of his ſon to depend on a ſingle trial, or at moſt a few?

This caſe is not drawn too unlike, or is it an unapt compariſon. For what is the life of man, conſidered as a ſtate of probation, when compared with an eternity, in which no farther trial takes place, and no alteration can be made, but his diſpoſition, conduct and fate are immutably fixed? Probably the advocate of final happineſs will avail himſelf of this circumſtance too in the compariſon, that, to make every thing equal in both caſes, ignorant, unthinking, inexperienced childhood muſt be conſidered as the time of probation, our earthly life being but the beginning and infancy of our exiſtence. Beſides, in comparing the two caſes, he would find this much harder, that in the latter there is no determinate time of probation, no certain number of years on which the ſon may ſafely reckon, where at leaſt he would have opportunity for repeated trials. But unqueſtionably the hardeſt of all would be, when the father irrevocably rejects his ſon on the firſt failure, without giving him a chance for repairing it, or behaving himſelf better: and we frequently find the young and thoughtleſs ſinner ſuddenly taken off in his firſt crime. To this indeed it may be replied that the father, who has made this ſtrict determination with reſpect to his ſon's fate, is free from reproach, as he had already given his ſon warning: the latter, therefore, knowing he had a rigid father, ſhould have been more cautious; if he were not, he can blame nothing but his own imprudence. But it may be anſwered, though I muſt leave the inconſiderate ſon to his fate, as the fruits of his own folly, I perceive no love, kindneſs or mercy in the father's conduct to his raſh, but unhappy ſon. If I cannot fully juſtify the ſon's conduct, this does not juſtify the ſtrict reſolve of the father, according to human notions. The ignorance, inexperience, and giddineſs of youth are at leaſt ſome excuſe for the former: but what ſoftening circumſtances can be advanced in juſtifying the rigour of the latter? If it be ſaid that a paternal love, incompatible with ſuch ſevere reſolves, is not that true paternal love which God bears his rational creatures, and which is ſuitable to his nature, but human frailty and imperfection: this is cutting the knot, inſtead of untying it: and it may be ſaid that what is conſidered as human, and unſuitable to God, in this idea, is the eſſence of paternal love, which ſeeks the happineſs of its object as much and as long as poſſible. If this be taken away, nothing more remains of God's paternal love to man; regarded as ſo affectionate, and we are totally deprived of all ideas of it; or rather it is changed into its oppoſite, according to that analogy by which alone we are able to form any conception of this, as well as of the other attributes of God.

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They who have endeavoured to reconcile the threats of eternal puniſhment, that cannot well be denied, with the goodneſs and paternal love of God, by ſuppoſing that theſe threats will not be carried into execution to the utmoſt rigour of the words by which they are expreſſed; but that God has a right, like human legiſlators, to mitigate the ſeverity of his puniſhments according to circumſtances; did not conſider that this ſuppoſition is a diſparagement to God's truth, and conſequently weakens the grounds on which our truſt in his word muſt be built. It will avail them nothing to make a diſtinction betwixt threats and promiſes; and to maintain that theſe muſt be certain and determinate, but that thoſe may be altered by the ſubſequent reſolves of God. Neither can the compariſon of human legiſlators or magiſtrates hold here; as ſeverer threats than they could, or would fulfil, would procure no true and durable advantage, either in government or education, but rather be prejudicial: they would frequently give occaſion to impunity; and it always denotes weakneſs, or want of power, when a man threatens more than he can, or will perform. Beſides, when we ſpeak of the execution of human laws, we in ſome meaſure know and foreſee the principles and maxims according to which, in the diſtribution of puniſhment, they will be mitigated, or put in force with the utmoſt rigour. The circumſtances under which this rigour or mitigation will take place being known, he who violates the law can ſtill foreſee his fate with ſome probability. All this, however, is inapplicable to the threats of God. Were we once to admit that the intent of them is not equally ſtrict with the expreſſion, and that a mitigation of them may be expected, we are in a dangerous uncertainty. Not perceiving the fundamental laws of God's moral government of his rational creatures, and not ſufficiently knowing his manner of action, we ſhould be ignorant of the principles on which we might judge what in theſe threats was properly true, in what degree they would be carried into execution, and whether they would in general take place. This uncertainty would greatly favour the hope of abſolute impunity, with which the wicked are too prone to flatter themſelves: at leaſt it would much weaken the impreſſion of the threats of puniſhment, and conſequently militate againſt the end for which they were deſigned.

Though we cannot eaſily admit this ſoftening explanation of the threats of eternal puniſhment, ſtill it may be aſked, whether we may not ſuppoſe that theſe threats, which are expreſſed in an unconditional and unlimited manner, are to be underſtood in a conditional and limited ſenſe, without doing violence to the words, and without ſapping the foundations of God's truth. It may be ſuppoſed that eternal puniſhments are threatened to ſin and ſinners; that is, to the former as long as it is practiſed, as long as it exiſts; to the latter ſo far as they are ſinners, or ſo far as they continue to offend againſt the deſigns and ordinances of their Creator. If the divine threats may be underſtood with this limitation, or, in the language of the ſchools, *reduplicative*, it would not follow that puniſhment muſt endure to all eternity, if, in ſome portion of eternity, ſin could ceaſe, and be annihilated, and the ſinner be ſome time converted. It may

may be ſaid, they relate to ſin, and preſume its actual exiſtence. They concern the ſinner ſo far as he is a ſinner. If, then, he ceaſe to be ſo, it would ſeem that his puniſhment muſt alſo ceaſe. There are parallel modes of expreſſion in ſcripture, that appear to favour this interpretation. When, for inſtance, it is ſaid: *whoſoever is born of God ſinneth not*, 1 John v. 18. we muſt underſtand this limitation: ſo long, and ſo far, as he is born of God. For he might ceaſe to be ſo, and then he would certainly ſin. What ſhould hinder our underſtanding the ſcriptural expreſſion concerning the wicked: *the wrath of God remaineth on him*, and other ſimilar ones, with the limitation that they remain objects of God's wrath as long as they are wicked. St. Paul declares, 1 Cor. vi. 9, 10, that neither fornicators, nor idolaters, nor adulterers, &c. ſhall inherit the kingdom of God. This is unqueſtionably to be underſtood in a conditional ſenſe, that the wicked, ſo far as they are ſo, and whilſt they continue in ſin, ſhall be excluded from the kingdom of God. But they are not denied the hope of being converted from their ſins, and then becoming happy partakers in Chriſt's kingdom. The Bible, however, affords us a paſſage ſtill more to the point, which ſeems fully to juſtify this mode of interpretation. The prophet Jonah is commiſſioned from God to tell the corrupt Ninevites that their city will be deſtroyed in forty days. This was an unconditional threat, and no hope was given the Ninevites, that their repentance would avert the threatened puniſhment. This may be concluded from the ſilence of the prophet, who, in delivering his meſſage, mentions not a word of any mitigation of the rigour of the ſentence being to be expected from their amendment. But were not this ſufficient to make us ſuppoſe the threat unconditional, we cannot doubt it, when we conſider how diſſatisfied the prophet was, becauſe the threat announced by him was not executed. Could he have been diſſatisfied, if his threat had been couched in ſuch terms as to give the Ninevites room to hope that their repentance would ſave them from its execution, or if he had underſtood it in that ſenſe? Had this been the caſe, he could not poſſibly have imagined, that the ſuppreſſion of the puniſhment of the Ninevites, after they had repented, could lead them to conſider him as a lying prophet; nor could he poſſibly have been angry at God's remitting the threatened puniſhment, which he had promiſed to remit on their repentance. Beſides, the leſſon which God gave the diſcontented prophet, when he attempted to juſtify his anger, muſt have been couched in very different terms: inſtead of pointing out to the prophet his pity, and ſo juſtifying his ſparing the Ninevites, he needed only have mentioned his injuſtice, in requiring of God what he had not promiſed, and demanding the execution of a threat expreſsly contrary to its conditions. Whether the Ninevites were juſtified in expecting the performance of God's threat only on condition that they did not turn from their ways, and how far they had grounds for hoping that their ſincere repentance would avert the intended puniſhment, are only to be determined by the event, and by God's anſwer to Jonah. Both teach us that, in ſimilar caſes, we may expect every thing from the

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mercy of God, and that his threats may be conditionally underſtood, when they are unconditionally expreſſed.

If it be aſked, why theſe threats were thus unconditionally ſpoken, and why this condition was not clearly expreſſed in words, it may probably be anſwered: an unconditional threat may make a deeper impreſſion on the mind of a ſinner, excite a terror that will be the more efficacious for being united with doubt and anxiety, and thus produce a more earneſt repentance, in thoſe who require for their amendment a ſtrong ſenſe of fear and terror. Probably the denunciation of the prophet Jonah would not ſo powerfully have excited the Ninevites to repentance, had the hope of pardon been clearly announced to them, ſo that they could have had no doubt of it. It is not difficult to perceive that the threats of eternal miſery, uttered in the ſcriptures againſt ſin and ſinners, are moſt ſuitably and efficaciouſly expreſſed in an unconditional manner. The inſtructions given us in the ſcripture are confined to the teaching us, how we muſt lead our lives here, to ſecure happineſs hereafter. They extend not to a future life: they tell us not how we muſt conduct ourſelves in it: they only aſſure us that we ſhall be in it what we are fitted for by our conduct in the preſent, and that it will be a ſtate of the moſt juſt and adequate retribution of the works we perform, and the diſpoſition we cultivate here. They teach us, that he who oppoſes the order and purpoſes of his wiſe and benevolent Creator will be the object of puniſhment and wretchedneſs, and that an oppoſition to the ordinances of God will be attended with eternal miſery.

To make the impreſſion of theſe inſtructions more forcible, the ſcripture tells us that the future ſtate of retribution will be the more perfect, in that it will be devoid of every thing which moderates and alloys the undiſturbed enjoyment and perfect reward of good, and the natural conſequences and puniſhment of evil in this life. In that kingdom of truth and order every one will be exactly what he ought to be, the virtuous happy, the wicked miſerable, without any commixture of circumſtances tending to weaken the proper fate of each. Thus much the ſcripture teaches us concerning our future ſtate: and this appears to me all that it was neceſſary or proper to teach us. The queſtions, however, whether the good may there become worſe, or the wicked better; and what alterations the deſtiny of either would, in that caſe, undergo; on which, according to this ſtate of the caſe, bottoms the whole doctrine of the future ſtate of the bleſſed, and of the damned, it leaves to be anſwered by philoſophy.

It does not agree with my plan, fully to examine what philoſophy gives us reaſon, with ſome probability, to expect. As however it only permits us to conclude from analogy, it will only allow of the three following propoſitions: either the ſtate of every man in a future life is irreverſibly fixed, ſo that, with reſpect to the developement of his mental faculties, his morality and perfection admit not of any advancement or decline: or ſome men advance without being able to decline, whilſt others decline without being able to advance: or both declenſion and advancement may take place in one and the ſame man.

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The firſt is repugnant to that mutability eſſential to man, and to all created beings in general; according to which, it cannot be impoſſible for them, though they may be unable to acquire new ideas, to aſſociate their former ones in a new manner. From their nature, as long as they are left to themſelves, all intelligent creatures muſt approach that perfection to which they tend, or they muſt recede from it. If they remain invariably ſtill, it can only be owing to an extraordinary effect of divine omnipotence, by which both the virtue of the good, and the wickedneſs of the bad, after having attained a certain point, are brought to an eternal ſtand. If this be taken for granted with reſpect to the wicked, and it be attempted to prove from it the eternity of their puniſhment, it appears to me reaſoning in a circle. For the ſuppoſition of eternal puniſhment is founded on the eternal perverſeneſs of the wicked: and this eternal perverſeneſs is not deduced from the nature of their minds, but from a determination of God, by which they are compelled to it, that they might ſuffer eternal puniſhment, as the good are compelled to remain in their virtue, that they may be capable of eternal reward.

Whether the ſecond propoſition be admiſſible, or not, will depend chiefly on the anſwer to the following queſtion: does the debaſement or decline of the wicked apply to their underſtanding, as well as their will; or is it to be ſuppoſed that the underſtanding continues to improve, whilſt the will is eternally growing worſe? He that aſſerts the latter, will appeal, perhaps, to the example of thoſe wicked people who may be extremely depraved in heart, notwithſtanding their knowledge of their duty, and what is truly for their advantage; and all to whom *video meliora proboque, deteriora ſequor* may be applied. He will ſay, puniſhment, particularly when ſevere, long-continued, and inceſſant, hardens rather than bends the mind; and as the deſpair of the ſinner is augmented, his perverſeneſs, and propenſity to evil, will increaſe. To this it may be anſwered: when a man remains a ſlave to vice, in ſpite of his better judgment, he is chained to it by habit, and the force of bodily aptitude; the practice of it gives him more pleaſure and ſatisfaction than the omitting it; he has ſtill an opportunity of ſinning; and he has the power of increaſing and confirming the habit and aptitude, which chained him to vice, by repetition of it. In ſhort, vice, though he muſt repent of it, is not ſufficiently hateful to him; or he does not conſider the natural or poſitive puniſhments that follow his miſconduct, as conſequences ſo inſeparable from it that there are no hopes of avoiding them, or at leaſt mitigating their effects, without abſtaining from ſin. Juſt too as we may ſuppoſe his judgment to be in what is really for his advantage, this judgment is not conſtant in him, but relaxes as the ſenſe of his puniſhment abates; when the much ſtronger perception of the overbalance of pleaſure promiſed him by ſin returns, and again exerciſes its tyrannic ſway. But this, according to the propoſition, cannot be the ſtate and diſpoſition of him who is condemned to eternal miſery. He will no longer poſſeſs this ſinful body, and if the influence of bodily

aptitude be not totally annihilated with it, it will unqueſtionably be much diminiſhed. The perfect retribution which will follow in the next world will require a privation of objects and opportunities for ſinning. For the wicked muſt there be pained by the privation of thoſe things, their immoderate indulgence in which conſtituted their crimes. A vicious propenſity, it is true, may not be gradually weakened, and ultimately deſtroyed, by the mere privation of objects and opportunities for ſinning, if the ſmalleſt hope remain that theſe objects and opportunities may again return. But if the propenſity be totally deprived of its object, and of all hope of ever obtaining it; and if the ſinner perceive that the future ſatisfaction of it is utterly impoſſible; this forcible privation, and this known impoſſibility, will finally overcome this propenſity, be it ever ſo ſtrong. Beſides, in this ſtate the ſinner could no longer deceive himſelf, or ſhut his eyes to the real cauſe of his miſery: wanting thoſe amuſements and diverſions with which he formerly kept at bay the ſtinging reproofs of conſcience, the painful voice of truth will ſtrike deep and loud on his inmoſt ſoul. Sin ſtripped of all its charms will inceſſantly appear before him in its native uglineſs, unable longer to promiſe him any compenſation; and he muſt perceive in it the ſole cauſe of all his wretchedneſs and torment.

To maintain that between the underſtanding and will of the wicked there is ſuch a gap, that the knowledge and judgment of the former do not determine the reſolves of the latter; we muſt deny that they are thus puniſhed in eternity, and made miſerable with the moſt juſt retribution; or mitigate and lower their pains to that reſiſtible and tolerable degree which they may attain in this world. On the contrary, the more juſt, adequate and ſtrong we ſuppoſe the puniſhment of the wicked to be, the more aſſuredly muſt they know that their ſufferings are abſolutely founded on their deviations from the laws of truth and virtue; the more clearly will their underſtanding perceive their true intereſt; and the more ſtrong and effectual muſt be their hatred to their former errors. Should not this follow, but their wills continue to grow more depraved, their perceptions of good and evil muſt grow more erroneous, and their underſtanding more darkened. Now it may be aſked, whether a ſtate of decline can continue to eternity, ſo that the light of reaſon may conſtantly diminiſh, without being ultimately extinguiſhed. This queſtion experience, in my opinion, anſwers in the negative. We know a ſtate from which we have emerged, in which all the perceptions of our minds were confuſed and obſcure, and we had no clear conſciouſneſs of our being, or our perſonality. Thus a ſpirit that ſhould continue to decay would ſoon loſe itſelf in this ſtate of inſenſibility, would ſoon ceaſe to be a thinking ſubſtance, and would be what man was before his birth. As we know no point in the aſcending ſcale to which the human underſtanding cannot riſe, though we know a point in the deſcending, below which it cannot fall without loſing its perſonality, its conſciouſneſs, its individuality of being, this objection will not apply to an ever continuing improvement.

If it be ſaid, according to the third propoſition, that every man, good or bad, happy or unhappy, may both advance and decline in perfection; this would be perfectly conſonant to the preſent frame of man's nature, and what mere analogy leads us to expect in that period which man has to go through. Such is the ſtate in which we find ourſelves here. But that, being a ſtate of moſt perfect retribution, muſt, in all appearance, eminently promote an advancement to perfection.*

I do not conſider the ſubject as exhauſted, or the queſtion decided, by theſe deſultory remarks: my ſole aim was to point out ſome conſiderations, which appear to me of weight in this inquiry, and which probably deſerve to be more narrowly inveſtigated and compared. This I ſhall leave to the more experienced mind, whilſt I endeavour to remove, if poſſible, one difficulty, which too naturally riſes to the view to be paſſed over in ſilence.

It may be ſaid, if the author of the ſcriptures had good and ſufficient reaſons not directly to anſwer the queſtion, whether the wicked can be amended by the puniſhments of the Almighty in the next world, or not; and if he have left the deciſion of it to philoſophy: in undertaking to anſwer the queſtion, and anſwering it in the affirmative, philoſophy would render nugatory the purpoſes for which God left us in the dark; deſtroy the neceſſary and ſalutary influence which the ignorance and uncertainty of mankind on this point would have on their minds; and, if it ſhould ſucceed in giving a full and ſatisfactory anſwer, only diſcover a pernicious truth.

If this objection be made, ſtill it muſt be underſtood that philoſophy, in anſwering the queſtion in the affirmative, does not contradict the ſcriptures. Though we agree concerning the intent of the ſilence of ſcripture, we may yet aſk: will this always hold good in every ſtate of mankind, to whatever degree of knowledge they may arrive, whatever may be their way of thinking, and whatever may be the ſtate of their morals? Or is the ignorance of the philoſophical ſolution, or the common belief of the contrary opinion, adapted only to a certain conſtitution, or a determinate ſtate of man, and uſeful in that only, but prejudicial under a change of circumſtances? It may be aſked farther, whether, notwithſtanding the anſwer of philoſophy, the ſilence of the ſcrip-

* We cannot here avoid recommending to our reader the ſtory of Carazan, the merchant of Bagdad, in the Adventurer, which, though a fiction, has an air of probability, and is true to nature.

In the parable of the rich man and Lazarus, a future life is not only repreſented as a ſtate of retribution, but the effect of that retribution is probably ſhadowed out in the ſentiments expreſſed by the former. The ſinner, when in the torments of hell, perceived, no doubt, that the pain he ſuffered was a juſt reward of the abuſe he had made of his poſſeſſions, in his voluptuous and ſelfiſh life. Unqueſtionably he now abhorred and execrated his former blindneſs and vice; and could he have returned to his father's houſe, he would probably have obeyed that warning, which, from a noble and diſintereſted anxiety for the delivery of his ſtill living brothers, he wiſhed to have communicated to them, in the moſt effectual manner.

tures may not produce its intended effects, and procure all the advantages desired. There may be a period, and there may be circumstances, under which the greater part of mankind are ill fitted to bear the light of philosophy; when they would not give themselves any concern about a nice decision of this question, or would admit the common opinion of the impossibility of conversion in a future state, and the collateral doctrine of eternal punishment, as rational, without finding in it any thing offensive; and when they could only abuse the contrary opinion to their detriment. With respect to such a period, and such circumstances, would it not be advantageous that the scripture should observe strict silence respecting the change men might undergo in another world? But again there may be times and circumstances, in which the discovery of the possibility of a future change might relatively produce more good than harm: when maintaining the contrary might, perhaps, be to thinking men a most insurmountable obstacle to their belief of divine revelation; an obstacle which they could not reconcile with the attributes and nature of God, with the appearance of his works, or even with the general tenor of the scriptures: and when the unthinking majority of christians themselves would be little more affected and deterred by the doctrine of eternal punishment; nay, when the abuse of it would but lull them into greater security. Can it militate against the design of God that a hitherto mistaken truth, probably concealed from mankind for their good, should be stripped of its veil, when circumstances are so altered that ignorance of it would be more prejudicial than advantageous? It is difficult to maintain that the discovery of a truth, or the detection of a prejudice, will have the same influence at all times, and under all circumstances. Neither can we absolutely assert that conclusions to which we may be led by reason, if they discover to us truths which God did not think fit to reveal to us in the scriptures, are contrary to the designs of God, or render them nugatory. Much more suitable both to philosophy and religion would it be to suppose that Providence, which orders every thing for the general good, watches over the cultivation and progress of truth amongst mortals with such wisdom, that it promotes or retards its discovery in proportion to the wants of the age; that no rightly demonstrated truth can be injurious upon the whole, or tend to corrupt the world; that light and darkness are distributed throughout the moral world according to wise and benevolent laws; and that both are necessary to the accomplishment of the grand scheme of providence, however incapable we may be of perceiving it in every particular instance.

Perhaps the following considerations may also tend to remove the objection. The greater part of those who are not philosophers enough to answer this question in a satisfactory manner, on rational principles, but trust to the decision of others, without examining it for themselves, would probably be inclined to abuse it, whilst unable to see the truth in its whole extent, and with all its consequences. These would be led by the silence of the scriptures to a necessary and beneficial diffidence of themselves,

and

and a truſt in the judgment of others, which would prevent their abuſing it: but, had the ſcriptures explained it clearly, this could not have happened. They who are capable of demonſtrating to themſelves the poſſibility of a future converſion, with more or leſs probability, muſt, ſo far as they reaſon on true and juſt grounds, diſcover this truth; that a long continued courſe of vice will render their diſcontinuance of it and amendment more difficult, their pains and chaſtiſements more ſevere and laſting, the purifying fire ſtronger, and their miſery more extreme: a truth that cannot but act as an antidote to the abuſe. They muſt alſo learn that their amendment can never be completed without making a beginning; and that this completion is not the buſineſs of a moment; not the inevitable conſequence of a wonderful conjunction of particularly favourable circumſtances; not the cataſtrophe of a tragedy or romance; but that it requires an earneſt and ſteadfaſt exertion, if a man would learn to govern himſelf; to ſubject his inclinations and deſires to reaſon; to make them accord with the will of his Creator, which tends to the happineſs of all; to love God above all things, and his neighbour as himſelf; to obtain a predominant taſte for truth, order, and perfection; and to find pleaſure in happineſs wherever it may be. They muſt know that peace, content and happineſs are to be taſted in that kingdom of truth and order, only in proportion as their minds are habituated to theſe, and approach perfection. They muſt alſo be conſcious that every ſin cheriſhes and confirms the propenſity to evil, and conſequently the diſorder and depravity of their minds; that every injury to another increaſes the meaſure that is to be filled out to themſelves; and that both the general good and their own require this, that when, on account of their unrighteouſneſs, they are condemned to be impriſoned in hell, they ſhall not be releaſed till they have paid the uttermoſt farthing, or received full retribution.—He who knows all this, or who believes the doctrine of a future retribution in the whole of its philoſophical and ſcriptural extent, is in no danger of being ſeduced into ſpiritual indolence and ſecurity by the hope of a future converſion.

If then the anſwer of philoſophy can be ſupported, the fear of its having diſcovered a dangerous truth, or of its abuſe being more general and diſadvantageous than the abuſe of the oppoſite opinion, appears to be unfounded. For who can deny that men by whom every thing is abuſed, may alſo abuſe this, and miſapply the doctrine of eternal puniſhment, or at leaſt render it ineffectual? It may drive them to deſpair. It gives religion a gloomy aſpect, deprives it of its pleaſing form, and ſeems more adapted to make the Deity terrible to us, than an object of love. Beſides the majority of mankind are incapable of forming a clear, determinate, and effectual idea of eternal puniſhment. The expreſſion is too abſtract, not ſenſible, not concrete enough to affect the minds of ſuch men, who cannot conceive abſtract expreſſions otherwiſe than by applying them to particular caſes. Tell ſuch a man that he ſhall remain a very long time in priſon, he will be much leſs affected, than if a certain number of years were mentioned.

tioned. The expreſſion, *eternal puniſhment*, will convey to him no idea; or he will imagine it to repreſent a certain number of years, ſo that the proper idea of eternity, at which he cannot arrive, will be loſt to him, or at leaſt will make no impreſſion on his mind which a determinate number of years would not have done with equal force and certainty. Let us, however, ſuppoſe that he can form a juſt idea of eternal duration, probably one of the two following conſequences would enſue. His religion, if it did not make him totally abandon it, and fall into practical atheiſm, would be chiefly ſuperſtition; conſiſting more in fear and terror, than love and confidence in God: or he would ſeek to leſſen his burdenſome fear and diſquiet by the hope that the number of the damned, amongſt believing chriſtians at leaſt, muſt be extremely ſmall; that a man, baptized in the name of Chriſt, could not draw upon himſelf damnation but by an eminently wicked life, or the moſt deteſtable religious errors; and that, if he were not worſe than the majority, or guilty of immediately offending God, and of crying injuſtice againſt his neighbour, but took care to avoid crimes forbidden by the law, he ſhould eſcape eternal puniſhment, and conſequently all puniſhment, as he knows no other.

As every one believes that there is a certain proportion betwixt crimes and their puniſhment, both in degree and duration; it is very natural, that he who is conſcious of no immediate offence to God, or no irreparable injury to his neighbour; and can only reproach himſelf with a very common degree of thoughtleſſneſs, a too great ſenſuality, a propenſity to the pleaſures and enjoyments of this world, a careleſs and free life, &c. ſhould conſider eternal puniſhment as too diſproportionate to the ſum of his guilt for him to fear it; or not to hope being ſecured from it by an adherence to the worſhip of the church to which he belongs, a right faith, and an obſervance of the ceremonies of religion. This, it may be preſumed, in all likelihood, would not be the caſe, and the great number of mere nominal chriſtians would be leſs apt to flatter themſelves with the hope of impunity, if they were deprived of the ſpecious pretext, and ſecret foundation of this hope; namely, the perceived or imagined diſproportion betwixt their ſins and eternal puniſhment. They would probably be awakened to a more earneſt reflection on their future fate; every the leaſt act diſapproved by their conſcience would become more important, and more powerfully excite in them diligence to do good; were they clearly convinced that every virtuous ſentiment which they nouriſhed by good works, would promote their happineſs in eternity; and every wicked inclination, which they cheriſhed by acquieſcence, would promote their unhappineſs, in exact proportion; that every good deed would there meet a ſuitable reward, and every bad one an adequate puniſhment; and that they would experience good or evil, as long as they ſhould merit it. Men would then have their own natural ſentiments of right and wrong; and the judge in their own breaſts would confirm the ſentence announced to them: but now the threats of hell ſuggeſt to many that eternal

miſery

miſery is too ſevere a puniſhment for the indulgence of a few years, and thoſe intermingled with ſo much ſorrow and vexation. The effects of the Popiſh doctrine of purgatory ſeem to make this conjecture in ſome degree probable. If this doctrine were delivered in a pure and rational manner, diveſted of ſuperſtitious notions, and the gainful additions foiſted into it by prieſtcraft; it would be found to be the ſame at bottom; or to teach that a proportional retribution is the mean of purifying us from bad thoughts and actions, and that when we are thus purified we may hope for a releaſement from pain. But the great object of fear in the Romiſh church is not ſo much eternal fire, as that purifying flame. Purgatory is the rein that curbs ſo many unruly deſires, and the ſpur to ſo many, at leaſt outwardly, good works. The certain hope of releaſe does not ſo diminiſh the fear of it, but it occaſions many reſtitutions accompanied with much ſelf-denial, many abaſing retractions, many humiliating confeſſions, and many expiations that coſt dear to ſelf-love; particularly on the bed of death: of all which, alas! our church offers us but few examples. How much greater and more numerous effects of this kind may we preſume would be produced, had not maſſes for the dead, legacies in favour of the prieſthood, pious foundations, and ſimilar ſuccedaneums for actual reſtitutions, and reparations of injuries, been invented by ſelf-intereſt, and ſwallowed by ſuperſtition!

But ſuppoſing it could be proved that the fire of hell is a purifying fire, would it be adviſable to advance this, and directly to maintain it, in mixed ſocieties? This queſtion, I believe, I have weighty reaſons for anſwering in the negative. Our ſocieties, at leaſt the greater part of them, may not be ſufficiently prepared for the reception, and right application of this doctrine. In my opinion, that preacher takes the ſafeſt way, who, in his public diſcourſes on this ſubject, goes no farther than revelation itſelf, the words of which he undertakes to explain and enforce. It behoveth him not to diſpel that wiſe and ſalutary darkneſs, with which ſcripture has enveloped the future fate of mankind; as he cannot tell whether the greater part of his hearers be not in the ſame circumſtances as the Ninevites at the preaching of Jonah; or whether ignorance, or at leaſt uncertainty be not neceſſary, to awaken them to more ſerious reflection, and to a more lively and effectual repentance. To this another reaſon for caution may be added. Hitherto the torments of hell have ever been repreſented as eternal. Our auditors are ſo accuſtomed to this notion, that they have aſſociated the idea of eternity with that of hell-torments in ſuch a manner as to conſider it an eſſential part of them. Many unthinking men, therefore, hearing that it is not impoſſible for them to be converted in eternity, and that probably in ſome period of it their torments would ceaſe, might imagine that the pains of hell themſelves may likewiſe be annihilated, or at leaſt no longer figure them of ſufficient weight to be affected by them: in the ſame manner as a man who is accuſtomed to ſee, and to ſuffer, ſevere puniſhment, little heeds a milder chaſtiſement, though it would be ſenſible and efficacious enough of itſelf,

itſelf, and in other circumſtances; or, as a man who has borne a very heavy burden, when a lighter is placed on his ſhoulders, is inſenſible of the load.

But if it be admitted on the other hand, that the ſcriptures do not clearly aſſert the impoſſibility of a converſion and alteration in eternity; we muſt go no farther on that ſide than they do, and at leaſt avoid making it a point of our public duty to demonſtrate it to be impoſſible. Would it not be moſt adviſable, to treat this ſubject with the ſame caution, and to paſs it over for the ſame reaſons, as a prudent and conſcientious preacher would treat cautiouſly, and perhaps totally paſs over the ſimilar point, of the poſſibility of a death-bed converſion? If a man content himſelf with ſaying that ſcripture gives us no hope of this kind in expreſs words; would not his preaching be true and effectual, whilſt he carefully enforces the clear threats of eternal puniſhment in the ſcriptures, denounced againſt thoſe who obey not God; and endeavours to inculcate as urgently as poſſible, that the longer a man continues in diſobedience the more he will enhance his miſery, and the more difficult he will make the alteration of his mind, and that as long as a man defers to make a beginning, and waits for a more convenient or favourable opportunity, he has actually reaſon to fear an eternal or irreverſible miſery?—Still I preſume not to decide any thing on this point. All I have ſaid on the ſubject is merely hypothetical, and I am prepared to embrace any ſyſtem that may appear to reſt on more ſolid foundations.

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E R R A T A.

Page	Line	
8	16	*for* a long, *read* along
9	9	*for* continuity, *read* diſcontinuity
18	14	*dele* the
—	8 from bottom,	*for* that, *read* their
24	2	——— *for* veins, *read* the veins
40	16	*dele* a, *before* aſſociation
66	9	*dele the* , *after* diſtinguiſh
79	8	*dele the* , *at the end*
82	6 from the bott.	*after* impreſſions *put a* ,
98	9	*dele the* , *after* vivid
—	2 from bott.	*after* vomiting *put a* ,
123	11	*after* things *put a* ,
169	19	*for* Cor. 2. *read* Cor. 5.
191	6 from bott.	*for* deſcent, *read* diſſent
194	18	*for* attend, *read* attended
197	19	*for* there, *read* their
206	8	*for* laws and action, *read* laws of action
222	15 from bott.	*for* we think, *read* as we think
250	12 from bott.	*for* ſympation, *read* ſympathy
265	6	*for* all, *read* alſo
289	18 from bott.	*for* ultimately, however, *read* ultimately. However,
295	ult.	*for* Free-will, *read* free-will
329	8	*for* inconſiſtent, *read* inconſtant
355	7	*for* believers, *read* unbelievers
360	20	*for* complied, *read* compiled
366	14	*dele the* , *after* generations
388	4	*for* deformed, *read* formed
388	21	*after* are *put a* ,
390	9 from bott.	*and in other places*, *for* paradiſaical, *read* paradiſiacal
413	8 and 9	*for* thirty-fifth, *read* 134th
439	17 from bott.	*for* morality, *read* mortality
443	3	*after* mankind, *put a* ;
445	14	*for* right, *read* rite
446	9 from bott.	*for* rapid, *read* repaid
465	12	*for* ſpeak, *read* ſay
473	16	*after* cannot, *add* but
477	18	*for* us be, *read* us to be
484	10	*for* ſecret, *read* ſacred
513	14 from bott.	*for* ye, *read* yet
518	15	*for* diſpoſitions, *read* diſpenſations
529	7	*for* 181, *read* 180
—	8	*for* 182, *read* 181
—	6 from bott.	*for* greateſt, *read* great
536	12 from bott.	*for* It may, *add* be
540	15	*after* God, *put a* ,
562	10 from bott.	*for* come in, *read* come to.
596	11	*dele* ſo, *before* that
661	4	*for* diſpoſition, *read* ſuſpicion
671	3	*for* a confirmation, *read* in confirmation
693	5 from bott.	*dele the* , *after* ultimately
700	16	*dele the* , *after* exclude
734	8	from bott. *for* privilege, *read* pupillage
736	9	*for* that is, *read* that it is

THE END.

D 5/77

Drawed 18/11/82