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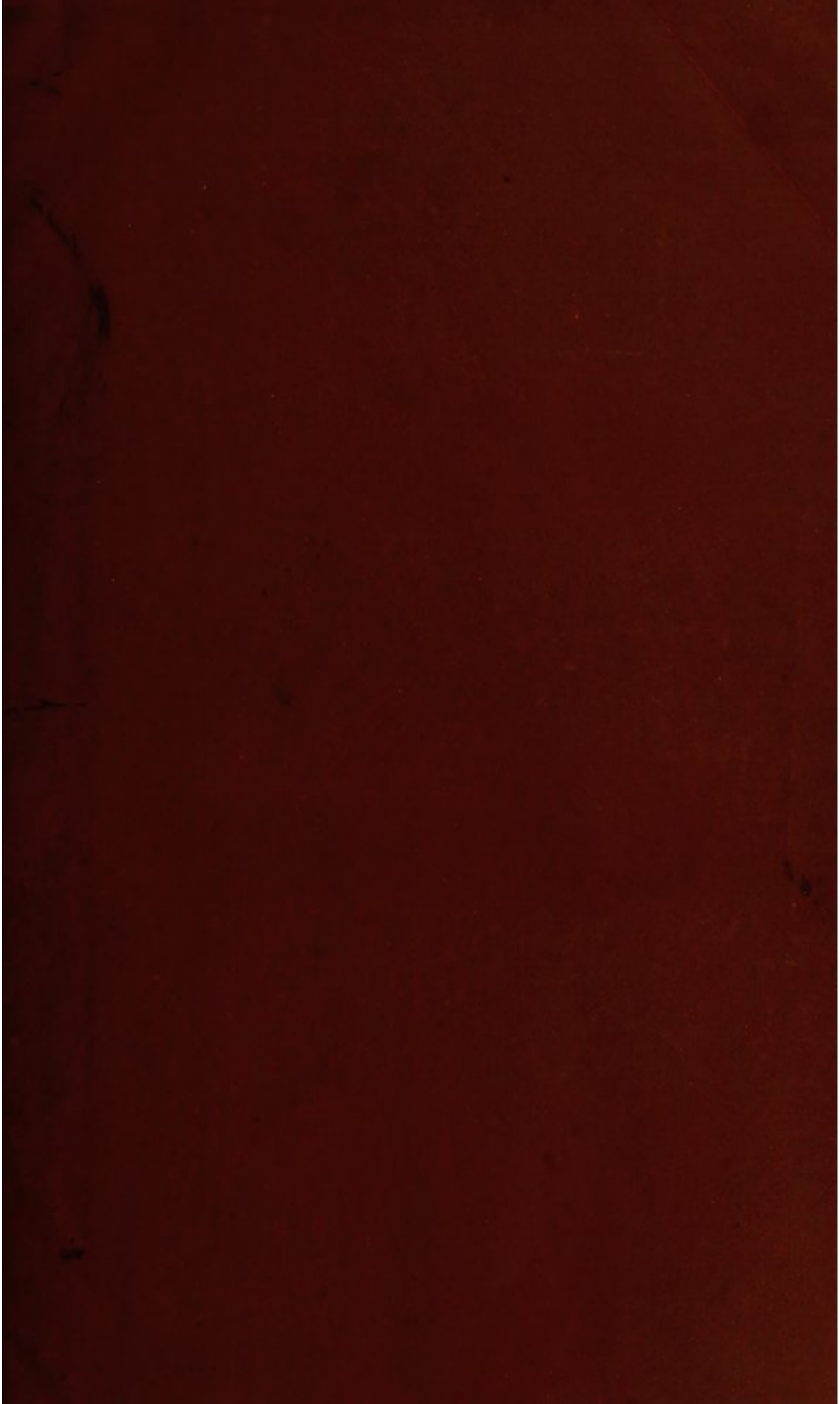
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THE

BIOGRAPHICAL HISTORY OF PHILOSOPHY,

FROM ITS ORIGIN IN GREECE DOWN TO THE PRESENT DAY.

BY

GEORGE HENRY LEWES.

'Man is not born to solve the mystery of Existence; but he must nevertheless attempt it, in order that he may learn how to keep within the limits of the Knowable.'—GOETHE.

'For I doubt not through the ages one increasing purpose runs,
And the thoughts of men are widened by the process of the suns.'—TENNYSON.

LIBRARY EDITION,

MUCH ENLARGED AND THOROUGHLY REVISED.



LONDON:
JOHN W. PARKER AND SON, WEST STRAND.
1857.

[*The Author reserves the right of Translation.*]

PRINTED BY
JOHN EDWARD TAYLOR, LITTLE QUEEN STREET,
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TO

ARTHUR HELPS

THIS WORK IS INSCRIBED

AS A MARK OF PUBLIC RESPECT AND A

MEMORIAL OF LONG FRIENDSHIP,

BY

THE AUTHOR.

PREFACE.

—✦—

THIS new edition may almost be considered as a new work, so many are the additions and so extensive the alterations. Seven new names have been added to the list of philosophers,—Abelard, Algazzali, Giordano Bruno, Hartley, Darwin, Cabanis, and Gall. An Introduction, setting forth the distinguishing characteristics of Philosophy and Science, replaces the original Introduction. Under the heads of Socrates, the Sophists, Aristotle, Bacon, Spinoza, Hume, Condillac, Kant, and Eclecticism, considerable additions and alterations will be found; and throughout, the revision has been such that scarcely a paragraph remains unaltered.

The work was written ten years ago, and was addressed to a popular audience. Ten years have not been without their influence on the historian; and moreover, the success of the work has so greatly exceeded anything that could reasonably have been anticipated—not only in respect to sale, but in the directions of its influence—that on undertaking this Library Edition I felt the necessity of modifying both the aim and scope of the work. A graver audience was to be addressed, a graver tone adopted. Without forgetting the general public, I had now to think also of what students would require. Many polemical passages, many extracts, and some digressions, have been removed; and the space thus gained has prevented the new matter from swelling the work to an inconvenient size. Many references and other bibliographical details have been added, although the principle of abstinence from unnecessary citation has still been preserved.

The labour bestowed on this Edition will, I hope, render it more worthy of public acceptance. To my friend, the Rev. W. G. Clark, of Trinity College, Cambridge, an acknowledgment is due for the kindness with which he permitted me to profit by his accomplished scholarship and taste, in the revision of the proofs; but while thanking him publicly for his many suggestions and corrections, I must exonerate him from every iota of responsibility either as to the opinions or the statements in this volume.

The Introduction explains the purpose of this History and the principles of its composition; let me therefore only add here that although availing myself of the labours of other historians and critics, I have not restricted myself to them. The works of the various philosophers, with rare exceptions, have been studied at first hand, and have furnished the extracts and abstracts; that is to say, I have either collected the passages myself, or have verified them by reference to the originals, in almost all cases. While, therefore, this History makes no pretension to a place beside the many erudite and comprehensive Histories previously published, it claims to be regarded as something very different from a mere compilation. The novelty of its conception made direct acquaintance with the originals indispensable. Having to exhibit the Biography of Philosophy in its rise, growth, and development, I could not always have drawn my material from writers who had no such aim; many of the passages most significant for my purpose being totally disregarded by my predecessors.

In another respect also I have innovated, namely, in the constant interweaving of criticism with exposition. This was necessary to my purpose of proving that no metaphysical system has had in it a principle of vitality; none has succeeded in establishing itself, because none deserved to succeed. In this way I have been led to express every conclusion to which the study of metaphysical problems has led me; in some places—especially in the refutation of Sensationalism, and in the physiological discussion of psychological questions—I have been forced to content myself with a brief and imperfect exposition of my own views; and the reader is re-

quested to regard them rather in their bearing as criticisms, than as expressing what I have to say on such difficult topics.

The following list comprises some of the many general Histories which the student will find useful, should he desire ampler detail than was consistent with the size and plan of this volume:—

In English.—Ritter, *History of Philosophy*, 3 vols.; Tennemann, *Manual of the History of Philosophy*, 1 vol.; Victor Cousin, *Introduction to the History of Philosophy*, 1 vol.; Morell, *History of Speculative Philosophy in the Nineteenth Century*, 2 vols. (2nd edition, much improved).

In French.—Degérando, *Histoire Comparée des Systèmes de Philosophie*, 4 vols. (2nd edition); Renouvier, *Manuel de la Philosophie Ancienne*, 2 vols., and *Manuel de la Philosophie Moderne*, 1 vol.; Damiron, *Histoire de la Philosophie en France au XIX Siècle*, 1 vol.; Galuppi, *Lettres Philosophiques*, 1 vol.

In German.—Ritter, *Geschichte der Philosophie*, 9 vols.; Tennemann, *Geschichte der Philosophie*, 11 vols.; Hegel, *Geschichte der Philosophie*, 3 vols.; Zeller, *Die Philosophie der Griechen*, 2 vols.; Brandis, *Geschichte der Griechisch-Römischen Philosophie*, 2 vols.

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INTRODUCTION.

§ I. On the Distinction between Philosophy and Science.

PHILOSOPHY is everywhere in Europe fallen into discredit. Once the pride and glory of the greatest intellects, and still forming an important element of liberal culture, its present decadence is attested no less by the complaints of its few followers than by the thronging ranks of its opponents. Few now believe in its large promises; still fewer devote to it that passionate patience which is devoted by thousands to Science. Every day the conviction gains strength that Philosophy is condemned, by the very nature of its impulses, to wander for ever in one tortuous labyrinth, within whose circumscribed and winding spaces weary seekers are continually finding themselves in the trodden tracks of predecessors, who, they know, could find no exit.

Philosophy has been ever in movement, but the movement has been circular; and this fact is thrown into stronger relief by contrast with the linear progress of Science. Instead of perpetually finding itself, after years of gigantic endeavour, returned to the precise point from which it started, Science finds itself year by year, and almost day by day, advancing step by step, each accumulation of power adding to the momentum of its progress; each evolution, like the evolutions of organic development, bringing with it a new functional superiority, which in its turn becomes the agent of higher developments. Not a fact is discovered but has its bearing on the whole body of doctrine; not a mechanical improvement in the construction of instruments but opens fresh sources of discovery. Onward, and for ever onward, mightier and for ever mightier, rolls this wondrous tide of discovery, and the 'thoughts of men are widened by the process of the suns.' While the first principles of Philosophy are to this day as much a matter of dispute as they were two thousand years ago, the first principles of Science are securely established, and form the guiding lights of European progress. Precisely the same questions are agitated in Germany at

the present moment that were agitated in ancient Greece; and with no more certain Methods of solving them, with no nearer hopes of ultimate success. The History of Philosophy presents the spectacle of thousands of intellects—some the greatest that have made our race illustrious—steadily concentrated on problems believed to be of vital importance, yet producing no other result than a conviction of the extreme facility of error, and the remoteness of any probability that Truth can be reached.* The only conquest has been *critical,* that is to say, psychological. Vainly do some argue that Philosophy has made no progress hitherto, because its problems are so complex, and require more effort than the simpler problems of Science; vainly are we warned not to conclude from the past to the future, averring that no progress will be made because no progress has been made. Perilous as it must ever be to set absolute limits to the future of human capacity, there can be no peril in averring that Philosophy never will achieve its aims, because those aims lie beyond all human scope. The difficulty is impossibility. No progress can be made because no certainty is possible. To aspire to the knowledge of more than phenomena,—their resemblances, co-existences, and successions,—is to aspire to transcend the inexorable limits of human faculty. To *know* more, we must *be* more.

The reader will have perceived that I use the word Philosophy in some restricted sense; and as this is the sense which will be attached to it throughout the present History, an explanation becomes requisite. In all countries the word Philosophy has come to be used with large latitude, designating indeed any and every kind of speculative inquiry; nay, in England, as Hegel notices with scorn,† microscopes, telescopes, barometers, and balances, are freely baptized 'philosophical instruments;'—Newton is called a philosopher; —and even Parliamentary proceedings get named philosophical;— so wide a range is given to this word. Such expressions may be criticized, but no criticism will root them out of our language; and it is futile to argue against whatever has become thus familiar and extensive. Nevertheless, when any one undertakes to write a

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* Compare Kant in the Preface to the 2nd ed. of the *Kritik der reinen Vernunft:* 'Der Metaphysik . . ist das Schicksal bisher noch so günstig nicht gewesen dass sie den sichern Gang einer Wissenschaft einzuschlagen vermogt hätte; ob sie gleich älter ist als alle übrige. . . . Es ist also kein Zweifel dass ihr Verfahren bisher ein blosses Herumtappen, und, was das Schlimmste ist, unter blossen Begriffen gewesen sey.'

† *Geschichte der Philosophie,* i. 72.

History of Philosophy, he must define the limits of his undertaking; and as I have not the slightest intention of including either microscopic inquiries, or Parliamentary debates, within my narrative, but of rigorously limiting it to such topics as are comprised in other Histories of Philosophy, it is indispensable to define the word 'Philosophy,' by limiting it exclusively to Metaphysics, in direct antithesis to Science. This is the sense it bears in all other Histories; except that the demarcation from Science is not always rigorously made.

In the early days of speculation all Philosophy was essentially metaphysical, because Science had not distinctly emerged. The particular sciences then cultivated, no less than the higher generalities on Life, Destiny, and the Universe, were studied on one and the same Method; but in the course of human evolution a second Method grew up, at first timidly and unconsciously, gradually enlarging its bounds as it enlarged its powers, and at last separating itself into open antagonism with its parent and rival. The child then destroyed its parent; as the mythic Zeus, calling the Titans to his aid, destroyed Saturn and usurped his throne. Observation and Experiment were the Titans of the new Method.

There are many who deplore the encroachment of Science, fondly imagining that Philosophy would respond better to the wants of man. This regret is partly unreasoning sentiment, partly ignorance of the limitations of human faculty. Even among those who admit that Philosophy is an impossible attempt, there are many who think it should be persevered in, because of the lofty views it is supposed to open to us. This is as if a man desirous of going to America should insist on walking there, because journeys on foot are more poetical than journeys by rail and steam; in vain is he shown the impossibility of crossing the Atlantic on foot; he admits that grovelling fact, but his lofty soul has visions of some mysterious overland route by which he will pass. He dies without reaching America, but to the last gasp he maintains that he has discovered the route on which others may reach it.

O Reader! let us hear no more of the lofty views claimed as the exclusive privilege of Philosophy. Ignorant indeed must the man be who nowadays is unacquainted with the grandeur and sweep of scientific speculation in Astronomy and Geology, or who has never been thrilled by the revelations of the Telescope and Microscope. The heights and depths of man's nature, the heights to which he aspires, the depths into which he searches, and the grander gene-

ralities on Life, Destiny, and the Universe, find as eminent a place in Science as in Philosophy, with the simple difference that they are less vague and are better founded. And even were we compelled to acknowledge that the lofty views of Philosophy were excluded from Science, the earnest mind would surely barter such loftiness for Truth. Our struggle, our passion, our hope, is for Truth, not for loftiness; for sincerity, not for pretence. If we cannot reach certain heights, let us acknowledge them to be inaccessible, and not deceive ourselves and others by phrases which pretend that these heights are accessible. Bentham warns us against 'question-begging epithets;' and one of these is the epithet 'lofty,' with which Philosophy allures the unwary student. As a specimen of the sentiment so inappropriately dragged in to decide questions not of sentiment but of truth, consider the following passage delivered from the professorial chair to students whose opinions were to be formed:—

'A spirit of most misjudging contempt has for many years become fashionable towards the metaphysical contemplations of the elder sages. Alas! I cannot understand on what principles. Is it, then, a matter to be exulted in that we have at length discovered that our faculties are only formed for earth and earthly phenomena? Are we to rejoice at our own limitations, and delight that we can be cogently demonstrated to be prisoners of sense and the facts of sense? In those early struggles after a higher and more perfect knowledge, and in the forgetfulness of every inferior science through the very ardour of the pursuit, there is at least a glorious, an irresistible testimony to the loftier destinies of man; and it might almost be pronounced that in *such* a view, their very errors evidence a truth higher than all our discoveries can disclose! When Lord Bacon, with his clear and powerful reasonings, led our thinkers from these ancient regions of thought (then newly opened to the modern world) to the humbler but more varied and extensive department of inductive inquiry, I represent to myself that angel-guide, all light and grace, who is pictured by our great poet as slowly conducting the first of our race from Paradise, to leave him in a world, vast, indeed, and varied, but where thorns and thistles abounded, and food —often uncertain and often perilous—was to be gained only by the sweat of the brow and in the downcast attitude of servile toil.'*

It would be an insult to the reader's understanding to answer the several absurdities and 'question-begging' positions of this passage,

* Archer Butler, *Lectures on the Hist. of Ancient Philosophy*, ii. 109. The

which however is a typical specimen of much that may be met in modern writers; all that I feel called upon to notice is the opening sentence. Contempt for the metaphysical speculations of the elder sages is the last feeling I should acknowledge, however erroneous I may believe them to be. They were the precursors of modern Science. Without them we should have been in darkness. The forlorn hope of Humanity can never be an object of contempt. We follow the struggles of the early thinkers with intense interest, because we trace in their defeats the causes of future victory.

The historical connection of Science with Philosophy, and the essential differences between them, which led to their separation and the final neglect of Philosophy, will be understood better when the characteristics of the two are clearly set forth. The object of both is the same, namely, Explanation of all phenomena. Their characteristic differences therefore do not lie in the thing sought, so much as in the Method of search. I have met with no satisfactory statement of these characteristic differences; and the readiest way I can think of to make them intelligible, will be to exhibit the Metaphysical and Scientific Methods in operation on the search after the causes of the same phenomenon; for instance, that of 'Table-turning.'*

A few persons stand round a table, gently resting their hands on it, but sedulously careful not to push in any direction. In a little while the table moves, at first slowly, afterwards with growing velocity. The persons are all of the highest respectability, above suspicion of wilful deceit. The phenomenon is so unexpected, so unprecedented, that an explanation is imperiously demanded. We have here an illustration of the origin of Philosophy. In presence of unusual phenomena, men are unable to remain without some explanation which shall render intelligible to them how the unusual event is produced. They are spectators merely; condemned to witness the event, unable to penetrate directly into its causes, unable to get

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varied and accurate erudition of Mr. W. H. Thompson's notes to these lectures gives these volumes their chief value.

* There is difficulty in selecting a suitable illustration, because if an undisputed scientific truth be chosen, the reader may not be able to place himself at the metaphysical point of view; whereas if a disputed point be chosen he may perhaps himself adopt the metaphysical explanation and refuse to acknowledge the scientific explanation. 'Table-turning' escapes both objections. The mania is sufficiently recent to permit our vividly realizing the mental conditions of the theorists; and the error is sufficiently exploded to admit of being treated as an error.

behind the scenes and *see* the strings which move the puppets, they *guess* at what they cannot see. In this way Man is *interpres Naturæ*. Whether he be metaphysician or man of science, his starting-point is the same; and they are in error who say that the metaphysician differs from the man of science in drawing his explanation from the recesses of his own mind in lieu of drawing it from the observation of facts. Both observe facts, and both draw their interpretations from their own minds. Nay, strictly considered, there is necessarily, even in the most familiar fact, the annexation of mental inference—something added by the mind, suggested by, but not given in, the immediate observation. Facts are the registration of direct observation and indirect inference, congeries of particulars partly sensational partly ideal. The scientific value of facts depends on the validity of the inferences bound up with them; and hence the profound truth of Cullen's paradox, that there are more false facts than false theories current.

The facts comprised in the phenomenon of 'Table-turning' are by no means so simple as they have been represented. Let us however reserve all criticism, and fix our attention solely on the phenomenon, which, expressed in rigorous terms, amounts to this:—the table turns; the cause of its turning unknown. To explain this, one class of metaphysical minds refers it to the agency of an unseen Spirit: connecting this spiritual manifestation with others which have been familiar to him, the interpreter finds no difficulty in believing that a Spirit moved the table; for the movement assuredly issued from no human agency; the respectable witnesses declare they did not push. Unless the table moved itself, therefore, the conclusion must be that it was moved by a Spirit.

Minds of another class gave another explanation, one equally metaphysical, although its advocates scornfully rejected the spiritual hypothesis. These minds were indisposed to admit the existence of Spirits as agents in natural phenomena; but their interpretation, in spite of its employing the language of science, was as utterly removed from scientific induction as the spiritual interpretation they despised. They attributed the phenomenon to Electricity. Connecting this supposed electrical manifestation with some other facts which seemed to warrant the belief of nervous action being identical with electricity, they had no hesitation in affirming that electricity streamed from the tips of the fingers; and it was even suggested by one gentleman that 'the nervous fluid had probably a rotatory action, and a power of throwing off some of its surplus force.'

Each of these explanations was very widely accepted by the general public, although few persons of any reasoning power now accept them. The obvious defect in both lies in the utter absence of any guarantee. We ought to be satisfied with no explanation which is without its valid guarantee. Before we purchase silver spoons we demand to see the mark of Silversmiths' Hall, to be assured that the spoons are silver, and not plated only. The test of the assayer dispels our misgivings. In like manner when the motion of a table is explained by spiritual agency, instead of debating whether the spirit bring airs from heaven or blasts from hell, we suffer our scepticism to fall on the preliminary assumption of the spirit's presence. Prove the presence of the spirit, before you ask us to go further. We may admit that, *if present*, the spirit is capable of producing this motion of the table; but we cannot permit you to assume such a presence merely to explain such a movement; for if the fact to be explained is sufficient proof of the explanation, we might with equal justice assume that the movement was caused by an invisible dragon who turned the table by the fanning of his awful wings.

A similar initial error is observable in the electrical hypothesis. Electricity may be a less intrinsically improbable assumption, but its presence requires proof. After that step had been taken, we should require proof that electricity could comport itself with reference to tables and similar bodies in this particular manner. We have various tests for the presence of electricity; various means of ascertaining how it would act upon a table. But seeing that the gentleman who spoke so confidently of 'currents issuing from the tips of the fingers' never once attempted to prove that there were currents; and knowing moreover that these currents, if present, would *not* make a table turn, all men of true scientific culture dismissed the explanation with contempt.

Such were the metaphysical Methods of explaining the phenomenon. Let us now watch the scientific Method. The point sought is the unknown cause of the table's movement. To reach the unknown we must pass through the avenues of the known; we must not attempt to reach it through the unknown. Is there any known fact with which this movement can be allied? The first and most obvious suggestion is, that the table was pushed by the hands which rested on it. There is a difficulty in the way of this explanation, namely, that the persons declare solemnly they did *not* push; and, as persons of the highest respectability, we are bound to believe them. Is this statement of any value? The whole question is involved in it. But

the philosophical mind is very little affected by guarantees of respectability in matters implicating sagacity rather than integrity. The Frenchman assured his friend that the earth did turn round the sun, and offered his *parole d'honneur* as a guarantee; but in the delicate and difficult questions of science *paroles d'honneur* have a quite inappreciable weight. We may therefore set aside the respectability of the witnesses, and, with full confidence in their integrity, estimate the real value of their assertion, which amounts to this: they were *not conscious* of pushing. We now see that the fact, which was imagined to be simple, namely, that 'the persons did not push,' turns out to be excessively dubious, namely, 'they were not conscious of pushing.' If we come to examine such a case, we find Physiology in possession of abundant examples of muscular action accompanied by no distinct consciousness, and some of these examples are very similar to those of the unconscious pushing, which may have turned the table; and we are thus satisfied of three important points:—1. Pushing is an adequate cause, and will serve to explain the movement of the table, as well as either the supposed spirit or electricity. 2. Pushing *may* take place without any distinct consciousness on the part of those who push. 3. Expectant attention is known to produce such a state of the muscles as would occasion this unconscious pushing.

Considered therefore as a mere hypothesis, this of unconscious pushing is strictly scientific; it may not be true, but it has fulfilled the preliminary conditions. Unlike the two hypotheses it opposes, it assumes nothing previously unknown, or not easily demonstrable; every position has been verified; whereas the metaphysicians have not verified one of their positions: they have not proved the presence of their agents, nor have they proved that these agents, if present, would act in the required manner. Of spirit we know nothing, consequently can predicate nothing. Of electricity we know something, but what is known is *not* in accordance with the table-turning hypothesis. Of pushing we know that it can and does turn tables. All then that is required to convert this latter hypothesis into scientific certainty, is to prove the presence of the pushing in this particular case. And it is proved in many ways, positive and negative, as I showed when the phenomenon first became the subject of public investigation. Positive, because if the hands rest on a loose tablecloth, or on substances with perfectly smooth surfaces which will glide easily over the table, the cloth or the substances will move, and not the table. Negative, because if the persons are duly *warned*

of their liability to unconscious pushing, and are told to keep vigilant guard over their sensations, they do not move the table, although previously they have moved it frequently. When we have thus verified the presence of unconscious pushing, all the links in the chain have been verified, and certainty is complete.

Reviewing the three explanations which the phenomenon of table-turning called forth, we elicit one characteristic as distinguishing the scientific Method, namely, the *verification* of each stage in the process, the guaranteeing of each separate point, the cultivated caution of proceeding to the unknown solely through the avenues of the known. The *germinal* difference, then, between the metaphysical and scientific Methods, is not that they draw their explanations from a different source, the one employing Reasoning where the other employs Observation, but that the one is content with an explanation which has no further guarantee than is given in the logical explanation of the difficulty; whereas the other imperatively demands that every assumption should be treated as provisional, hypothetical, until it has been confronted with fact, tested by acknowledged tests, in a word, *verified*. The guarantee of the metaphysician is purely logical, subjective: it is the *intellectus sibi permissus;* the guarantee of the other is derived from a correspondence of the idea with experience. As Bacon says, all merely logical explanations are valueless, the subtlety of nature greatly surpassing that of argument: 'Subtilitas naturæ subtilitatem argumentandi multis partibus superat;' and he further says, with his usual felicity, 'Sed axiomata à particularibus ritè et ordine abstracta nova particularia rursus facilè indicant et designant.' It is these 'new particulars' which are reached through those already known, and complete the links of the causal chain.

Open the history of Science at any chapter you will, and its pages will show how all the errors which have gained acceptance gained it because this important principle of verification of particulars was neglected. Incessantly the mind of man leaps forward to 'anticipate' Nature, and is satisfied with such anticipations if they have a logical consistence. When Galen and Aristotle thought that the air circulated in the arteries, causing the pulse to beat, and *cooling* the temperature of the blood, they were content with this plausible anticipation; they did not verify the facts of the air's presence, and its cooling effect; when they said that the 'spirituous blood' nourished the delicate organs, such as the lungs, and the 'venous blood' nourished the coarser organs, such as the liver; when they said that

the 'spirit,' which was the purer element of the blood, was formed in the left ventricle, and the venous blood in the right ventricle, they contented themselves with unverified assumptions. In like manner, when in our own day physiologists of eminence maintain that in the organism there is a Vital Force which suspends chemical actions, they content themselves with a metaphysical unverified interpretation of phenomena. If they came to rigorous confrontation with fact, they would see that so far from chemical action being 'suspended' it is incessantly at work in the organism; the varieties observable being either due to a difference of conditions (which will produce varieties out of the organism), or to the fact that the action is masked by other actions.

If the foregoing discussion has carried with it the reader's assent, he will perceive that the distinguishing characteristic of Science is its Method of graduated Verification, and not, as some think, the employment of Induction in lieu of Deduction. All Science is deductive, and deductive in proportion to its separation from ordinary *knowledge*, and its co-ordination into systematic Science. 'Although all sciences tend to become more and more deductive,' says a great authority, 'they are not therefore the less inductive; every step in the deduction is still an induction. The opposition is not between the terms Inductive and Deductive, but between Deductive and Experimental.'* Experiment is the great instrument of Verification. The difference between the ancient and modern philosophies lies in the facility with which the one accepted axioms and hypotheses as the basis for its deductions, and the cultivated caution with which the other insists on verifying its axioms and hypotheses before deducing conclusions from them. We guess as freely as the ancients; but we know that we are guessing; and if we chance to forget it, our rivals quickly remind us that our guess is not evidence. Without guessing, Science would be impossible. We should never discover new islands, did we not often venture seawards with intent to sail beyond the sunset. To find new land, we must often quit sight of land. As Mr. Thompson admirably expresses it:— 'Philosophy proceeds upon a system of credit, and if she never advanced beyond her tangible capital, our wealth would not be so

* Mill's *System of Logic:* perhaps the greatest contribution to English speculation since Locke's *Essay*. Had Mr. Mill invented a new terminology, and expressed himself with less clearness, he would assuredly have gained that reputation for profundity which, by a thorough misconception of the nature of thought, is so often awarded to obscurity.

enormous as it is.'* While both metaphysician and man of science trade on a system of credit, they do so with profoundly different views of its aid. The metaphysician is a merchant who speculates boldly, but without that convertible capital which can enable him to meet his engagements. He gives bills, yet has no gold, no goods to answer for them; these bills are not representative of wealth which exists in any warehouse. Magnificent as his speculations seem, the first obstinate creditor who insists on payment makes him bankrupt. The man of science is also a venturesome merchant, but one fully alive to the necessity of solid capital which can on emergency be produced to meet his bills; he knows the risks he runs whenever that amount of capital is exceeded; he knows that bankruptcy awaits him if capital be not forthcoming.

The contrast therefore between Philosophy and Science, or Metaphysics and Positive Philosophy, is a contrast of Method; but we must not suppose that the Method of the one is Deduction, while that of the other is Observation. Nothing can be more erroneous than the vulgar notion of the 'Inductive Method,' as one limited to the observation of facts. Every instructed thinker knows that facts of observation are particular theories; that is to say, every fact which is registered as an observation is constituted by a synthesis of sensation and inference. We shall see this illustrated presently. To it must be added the truth that Science is constantly making discoveries by Reasoning alone, aloof from any immediate exercise of Observation, aloof indeed from the very phenomena it classifies; for when facts are registered in formulas, we resign ourselves to the manipulation of these formulas as symbols or equations, assured that the result will accord with Nature. Fresnel predicted the change in polarization from no observation of facts immediately lying before him, but from a happy elucidation of algebraic symbols. Astronomy is more studied on paper than through the telescope, which however is called upon to verify the results figured on paper. So that if we compare our astronomical and geological theories with the cosmical speculations of a Plato or a Hegel, we shall not find them deficient in the speculative daring which outruns the slow process of observation, but we shall find the difference to lie initially in the rigour with which our deductive formulas are established, and in the different estimates we form of what is valid evidence.

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* *Outlines of the Laws of Thought*, p. 312.

Galileo made Astronomy a science when he began to seek the unknown through the known, and to interpret celestial phenomena by those laws of motion which were recognized on the surface of the earth. Geology became possible as a science when its principal phenomena were explained by those laws of the action of water, visibly operating in every river, estuary, and bay. Except in the grandeur of its sweep, the mind pursues the same course in the interpretation of geological facts which record the annals of the universe, as in the interpretation of the ordinary incidents of daily life. To read the pages of the great Stone-book, and to perceive from the wet streets that rain has recently fallen, are the same intellectual processes. In the one case the mind traverses immeasurable spaces of time, and infers that the phenomena were produced by causes similar to those which have produced similar phenomena within recent experience; in the other case, the mind similarly infers that the wet streets and swollen gutters have been produced by the same cause we have frequently observed to produce them. Let the inference span with its mighty arch a myriad of years, or span but a few minutes, in each case it rises from the ground of certain familiar indications, and reaches an antecedent known to be capable of producing these indications. Both inferences may be wrong: the wet streets may have been wetted by a water-cart, or by the bursting of a pipe. We cast about for some other indication of rain besides the wetness of the streets and the turbid rush of gutters, which might equally have been produced by the bursting of a water-pipe. If we see passers-by carrying wet umbrellas, some still held above the head, our inference is strengthened by this indication, that rain, and no other cause, produced the phenomena. In like manner, the geologist casts about for other indications besides those of the subsidence of water, and as they accumulate, his conviction strengthens.

While this is the course of Science, the course of Philosophy is very different. Its inferences start from no well-grounded basis; the arches they throw are not from known fact to unknown fact, but from some unknown to some other unknown. Deductions are drawn from the nature of God, the nature of Spirit, the essences of Things, and from what Reason can postulate. Rising from such mists, the arch so brilliant to look upon is after all a rainbow, not a bridge.

To make his method legitimate, the Philosopher must first prove that a co-ordinate correspondence exists between Nature and his

Intuitional Reason,* so that whatever is true of the one must be true of the other. The geologist, for example, proceeds on the assumption that the action of waters was essentially the same millions of years ago as it is in the present day; so that whatever can be positively proved of it *now*, may be confidently asserted of it *then*. He subsequently brings evidence to corroborate his assumption by showing that the assumption is necessary and competent to explain facts not otherwise to be consistently explained. But does the Philosopher stand in a similar position? Does he show any validity in his preliminary assumption? Does he produce any evidence for the existence of a nexus between his Intuitional Reason and those noumena or essences, about which he reasons; does he show the probability of there being such a correspondence between the two, that what is true of the one may be accepted as probable of the other? Nothing of the kind. He assumes that it is so. He assumes, as a preliminary to all Philosophy, that Intuitional Reason is competent to deliver verdicts, even when the evidence is entirely furnished by itself. He assumes that Intuitions are face to face with Existences, and have consequently immediate knowledge of them. But this immense assumption, this gratuitous begging of the whole question, can only be permitted after a demonstration that the *contrary* assumption must be false. Now it is certain that we can assume the contrary, and assume it on evidence as cogent as that which furnishes his assumption. I can assume that Intuitions are not face to face with Existences; indeed this assumption seems to me by far the most probable; and it is surely as valid as the one it opposes? I call upon the metaphysician to prove the validity of his assumption, or the invalidity of mine. I call upon him for some principle of verification. He may tell me (as in past years the Hegelians used to tell me, not without impatience) that 'Reason must verify itself;' but unhappily Reason has no such power; for if it had, Philosophy would not be disputing about first principles; and when it claims the power, who is to answer for its accuracy, *quis custodiet ipsos custodes?* If Philosophy is possible, its only basis

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* By Intuitional Reason I here wish to express what the Germans call *Vernunft*, which they distinguish from *Verstand*, as Coleridge tried to make Englishmen distinguish between Reason and Understanding. The term Reason is too deeply rooted in our language to be twisted into any new direction; and I hope by the unusual 'Intuitional Reason' to keep the reader's attention alive to the fact that by it is designated the process of the mind engaged in transcendental inquiry.

rests on the correspondence between Nature and Intuitional Reason. But a correct analysis of our intellectual processes will furnish a solvent which will utterly destroy the last shred of organic basis out of which Philosophy grows.

Reasoning, if I rightly apprehend it, is the same intellectual process as Perception, with this difference, that Perception is inferential respecting objects *present*, and Reasoning is inferential respecting objects *absent*. In the laxity of current language, sensations and perceptions are almost convertible terms; but if we rigorously separate from our perceptions all those elements not actually given in the momentary sensations, it will be evident that Perception is distinguished from Sensation by the addition of certain inferences: as when we perceive a substance to be hard, square, odorous, sweet, etc., from certain inferences rising out of its form, colour, etc., although we do not actually touch, smell, or taste the object. What is this process of inference? It is a presentation before the consciousness of something which has been formerly observed in conjunction with the object, and is therefore supposed to be now actually present in fact, although not present in sensation. I have no sensation of sweetness when I see the lump of sugar; but the sight of the sugar brings before my consciousness the sweetness, which the sugar will bring to my sensibility when in contact with my tongue. I perceive the sweetness; and I do this by making present to my mind what is absent from sense. I *infer* that the lump of white substance before me is sugar, as I infer that it rains when I see, from my window, water falling on the streets. In both cases the inference may be wrong. The white substance may be salt; the falling water may be the spray of the garden-hose. But in each and every case of Perception, a something is added to the Sensation, and that something is inferential, or the assumption of some quality present in fact which is not present in sense.

Reasoning is likewise inferential, but about objects which, although they were formerly given in sense, are now absent altogether. Reasoning is the presentation before the consciousness, of objects which, if actually present, would affect the consciousness in a similar way. It mentally supplies their existence. Thus, when from the wet streets and turbulent gutters I conclude, or infer, that it *has* rained, I make present to myself the phenomena of falling water in somewhat the same order as the falling water would follow *if* present. On closely attending to any chain of Reasoning

we shall find that if it were possible to realize all the links in the chain, *i. e.* so to place the actual objects in their connected series that we could *see* them, this mental series would become a visible series, and, in lieu of reasonings, would afford direct perceptions. Good reasoning is the ideal assemblage of facts, and their re-presentation to the mind in the order of their actual series. It is seeing with the mind's eye. Bad reasoning will always be found to depend on some of the objects not being mentally *present*; some links in the chain are dropped or overlooked; some objects instead of being re-presented are left absent, or are presented so imperfectly that the inferences from them are as erroneous as the inferences from imperfect vision are erroneous. Bad reasoning is imperfect re-presentation.

This explanation of the intellectual operations is, I believe, novel; should it be accepted, it will light up many obscure questions. But for the present we must only notice its bearing on Philosophy. When the table-turners concluded that electricity was the cause of the table's movement, they did not make present to their minds the real facts of electricity and its modes of operations; otherwise they would have *seen* that electricity would not turn the table round, and they would have seen this almost as vividly as if a battery had been then and there applied to the table. Faraday, on the contrary, did make these facts mentally present, so as not to need the actual presence of a battery; and his correct reasoning might not be owing to any greater general vigour of ratiocination, but to his greater power of making these particular facts mentally present. Describe an invention to Dr. Neil Arnott, and he will be able to reason on its practicability, almost as well as if he saw the machine in operation: because he can mentally make present to himself all the details of structure, and from these infer all the details of action, just as his direct inferences would follow the actual presentation of the objects. There are two modes of detecting false logic, and there are but two: either we must reduce the argument to a series of sensations—make the facts in question visible to sense, and show that the sequences and co-existences of these facts are not what the reasoner asserted them to be; or we must mentally supply the place of this visible demonstration, and by re-presenting the objects before the mind, see where their sequences and co-existences differ from what the reasoner asserted them to be.

If all Reasoning be the re-presentation of what is now absent but

formerly was present, and can again be made present,—in other words, if the test of accurate reasoning is its reduction to fact,—then is it evident that Philosophy, dealing with transcendental objects which *cannot* be present, and employing a Method which admits of no verification (or reduction to the test of fact) must be an impossible attempt. And if I am asked how it is that philosophers have reasoned at all on transcendental subjects, since according to my statement they could only reason by making such subjects present to their minds, the reply is that they could not, and did not, make present to their minds any such subjects at all; the Infinite was really conceived by them as Finite, the Unconditioned as Conditioned, Spirit as Body, Noumenon as Phenomenon; for only thus were these things conceivable at all. Thus it is only possible to take the first step in Philosophy by bringing transcendental subjects within the sphere of experience, *i. e.* making them no longer transcendental. Thus, and thus only, is it possible for us to reason on such topics.

All this will doubtless be utterly denied by metaphysicians. They proceed on the assumption that Intuitional Reason, which is independent of experience, is absolute and final in its guarantee. The validity of its conclusions is self-justified. Hegel boldly says, 'Whatever is rational is real, and whatever is real is rational,—*das Vernünftige ist wirklich und das Wirkliche vernünftig.*' And writers of less metaphysical rigour frequently avow the axiom, and always imply it. Thus in a remarkable article on Sir W. Hamilton, which appeared in the *Prospective Review* (understood to be by Mr. James Martineau), we read that Philosophy in England has dwindled down to mere Psychology and Logic, whereas its proper business is with the notions of Time, Space, Substance, Soul, God; 'to pronounce upon the validity of these notions as revelations of real Existence, and, if they be reliable, use them as a bridge to cross the chasm from relative Thought to absolute Being. Once safe across, and gazing about it in that realm, the mind stands in presence of the objects of Ontology.'

'Once safe across;' this is indeed the step which constitutes the whole journey; unhappily we have no means of getting safe across; and in this helplessness we had better hold ourselves aloof from the attempt. If a man were to discourse with amplitude of detail and eloquence of conviction respecting the inhabitants of Sirius, setting forth in explicit terms what they were like, what embryonic forms they passed through, what had been the course of their social evolu-

tion and what would be its ultimate stage, we should first ask, And pray, Sir, what *evidence* have you for these particulars? what guarantee do you offer for the validity of these conclusions? If he replied that Intuitional Reason assured him these things must be so from the inherent necessities of the case, he having logically evolved these conclusions from the data of Reason; we should suppose him to be either attempting to mystify us, or to be hopelessly insane. Nor would this painful impression be removed by his proceeding to affirm that he never thought of trusting to such fallacious arguments as could be furnished by observation and experiment—tests wholly inapplicable to objects so remote from all experience, objects accessible only by Reason.

In the present day, speculations on Metaphysics are not, intrinsically, more rational than speculations on the development of animated beings peopling Sirius; nay, however masked by the ambiguities of language and old familiarities of speculation, which seem to justify Metaphysics, the attempt of the Philosopher is really less rational, the objects being even less accessible. Psychology has taught us one lesson at least, namely, that we cannot know causes and essences, because our experience is limited to sequences and phenomena. Nothing is gained by despising Experience, and seeking refuge in Intuition. The senses may be imperfect channels, but at any rate they are in direct communication with their objects, and are true up to a certain point. The error arising from one sense may be corrected by another; what to the eye appears round, the hand feels to be square. But Intuition has no such safeguard. It has only itself to correct its own errors. Holding itself aloof from the corroborations of Sense, it is aloof from all possible verification, because it cannot employ the test of confrontation with fact.

This conviction has been growing slowly. It could never have obtained general acceptance until Philosophy had proved its incapacity by centuries of failure. In the course of our History we shall see the question of Certitude continually forced upon philosophers, always producing a crisis in speculation, although always again eluded by the more eager and impatient intellects. Finally, these repeated crises disengage the majority of minds from so hopeless a pursuit, and set them free to follow Science which *has* Certitude. If our History has any value, it is in the emphatic sanction it thus gives to the growing neglect of Philosophy, the growing preference for Science. In the former edition I adopted the common view which regards the distinction between Philosophy and Science

as lying in the pursuit of different objects. 'Philosophy aspires to the knowledge of *essences* and *causes*. Positive Science aspires only to the knowledge of *Laws*. The one pretends to discover *what things are*, in themselves, apart from their appearances to sense; and *whence they came*. The other only wishes to discover their *modus operandi*, observing the constant *co-existences and successions* of phenomena among themselves, and generalizing them into some one *Law*.' But this I no longer regard as the whole truth. It does not discriminate between scientific and metaphysical speculation on subjects within the scope of Science; such for instance as the phenomena of life, or such as table-turning. The vital and fundamental difference between the two orders of speculation does not lie in their objects, but in their methods. *A priori*, indeed, we might conclude that such a circumscription of the aims of speculation as is implied in Science would necessarily bring about a corresponding change in Method; in other words, that men having once relinquished the pursuit of essences and causes would have been forced to adopt the Method of Verification, because that alone was competent to lead to certitude. But History tells a different tale. Men did not adopt the Method of Verification because they had previously relinquished all attempts to penetrate into causes; but they relinquished all attempts to penetrate into causes because they found that the only Method which could lead to certainty was the Method of Verification, which was not applicable to causes. Hence a gradual elimination followed the gradual rise of each particular science; till at last, in the doctrine of Auguste Comte, all inquiry is limited to such objects as admit of verification, in one way or another.

The Method of Verification, let us never forget, is the one grand characteristic distinguishing Science from Philosophy, modern inquiry from ancient inquiry. Of the ancients, Fontenelle felicitously says: 'Souvent de faibles convenances, de petites similitudes, des discours vagues et confus, passent chez eux pour des preuves: *aussi rien ne leur coûte à prouver*.' The proof is, with us, the great object of solicitude. We demand certainty; and as the course of human evolution shows certainty to be attainable on no other Method than the one followed by Science, the condemnation of Metaphysics is inevitable.

Grand, indeed, has been the effort of Philosophy; great the part it has played in the drama of civilization; but the part is played out. It has left the legacy bequeathed by every great effort. It has en-

riched all succeeding ages, but its work is accomplished. Men have grown less presumptuous in speculation, and inconceivably more daring in practice. They no longer attempt to penetrate the mystery of the universe, but they explore the universe, and yoke all natural forces to their splendid chariot of Progress. The marvels of our age would have seemed more incredible to Plato, than were the *Arabian Nights* to Bentham; but while Science thus enables us to realize a wonderland of fact, it teaches us to regard the unhesitating temerities of Plato and Plotinus as we regard the efforts of a child to grasp the moon.

Philosophy was the great initiator of Science. It rescued the nobler part of man from the dominion of brutish apathy and helpless ignorance, nourished his mind with mighty impulses, exercised it in magnificent efforts, gave him the unslaked, unslakeable thirst for knowledge which has dignified his life, and enabled him to multiply tenfold his existence and his happiness. Having done this, its part is played. Our interest in it now is purely historical.

The purport of this history is to show how and why the interest in Philosophy has become purely historical. In this purport lies the principal novelty of the work. There is no other History of Philosophy written by one disbelieving in the possibility of metaphysical certitude.

§ II. Limits of the Work.

Having explained what is the final purpose of this History, and makes it subservient to the general History of Humanity rather than to any philosophical system, I will now briefly indicate the reasons which, apart from the limitations of my own knowledge, have determined the selection of the illustrative types. Brucker, having no purpose beyond that of accumulating materials, includes in his History the speculations of Antediluvian, Scythian, Persian, and Egyptian thinkers. Mr. Maurice, who has a purpose, also includes Hebrew, Egyptian, Hindoo, Chinese, and Persian philosophies.* Other historians vary in their limits, upon not very intelligible grounds. I begin with Greece, because in the history of Grecian thought all the epochs of speculative development are distinctly traceable; and as I write the Biography of Philosophy, it is enough for my purpose if anywhere I can find a distinct filiation

* *Moral and Metaphysical Philosophy*, part i., second edition, 1850: a work of singular fascination and great ingenuity.

of ideas. Rome never had a philosophy of its own; it added no new idea to the ideas borrowed from Greece. It occupies no place therefore in the development of Philosophy, and is omitted from this Biography.

The omission of the East, so commonly believed to have exercised extensive and profound influence on Greece, will to many readers seem less excusable. But to unfold the arguments which justify the omission here, would require more space than can be spared in this Introduction. It is questionable whether the East had any Philosophy distinct from its Religion; and still more questionable whether Greece borrowed its philosophical ideas.* True it is that the Greeks themselves supposed their early teachers to have drunk at the Eastern fount. True it is that modern orientalists, on first becoming acquainted with the doctrines of the Eastern sages, recognized strong resemblances to the doctrines of the Greeks; and a Röth† finds Aristotle to be the first independent thinker, all his predecessors having drawn their speculations from the Egyptian; while a Gladisch‡ makes it quite obvious (to himself) that the Pythagorean system is nothing but an adoption of the Chinese, the Heraclitic system an adoption of the Persian, the Eleatic of the Indian, the Empedoclean of the Egyptian, the Anaxagorean of the Jewish. But neither the vague tradition of the Greeks, nor the fallacious ingenuity of moderns, weigh heavy in the scale of historical criticism. It is true that coincidences of thought are to be found between Grecian and many other systems; but coincidences are no evidence of direct filiation; and he has studied the history of speculation to little purpose who is not thoroughly familiar with the natural tendency of the mind to sweep into the same tracks, where others have been before, where others will find themselves afterwards. Moreover, many of these coincidences, upon which historical theories are based, turn out, on close inspection, to be merely verbal, or at the best approximative. Thus the physical speculations of the Greeks often coincide in expression with those of modern science. Does this prove that the moderns borrowed their science from the ancients? M. Dutens thought so, and has written an erudite but singularly erroneous book to prove it. Democritus asserted the Milky Way to be only a cluster of stars;

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* I have elsewhere stated reasons for this belief.—*Edinburgh Review*, April, 1847, p. 352 *sq.*

† *Geschichte unserer abendländischen Philosophie*, i. p. 228 *sq.*

‡ *Die Religion und die Philosophie in ihrer weltgesch. Entwickelung.*

but the assertion was a mere guess, wholly without proof, and gained no acceptance. It was Galileo who *discovered* what Democritus *guessed*. Thus also Empedocles, Pythagoras, and Plato are said to have been perfectly acquainted with the doctrine of gravitation; and this absurdity is made delusive by dint of forced translations, which elicit something like coincidence of expression, although every competent person detects the want of coincidence in the ideas.*

Waiving all discussion of disputable and disputed points, it is enough that in Greece from the time of Thales, and in Europe from the time of Descartes, a regular development of Philosophy is traceable, quite sufficient for our purpose, which is less that of narrating the lives and expounding the opinions of various thinkers, than of showing how the course of speculation necessarily brought about that radical change in Method which distinguishes Philosophy from Science. In pursuance of such an aim it was perfectly needless to include any detailed narrative of the speculations which, under the name of Scholasticism, occupied the philosophical activity of the Middle Ages. Those speculations were either subordinate to Theology, or were only instrumental in perfecting philosophical language; and in this latter respect the historian of Philosophy is no more called upon to notice them, than a writer on the art of War would be called upon to give a history of the armourers of Milan or the sword-manufacturers of Toledo.

The same principle which determines the selection of Epochs also determines the selection of the points of doctrine to be expounded. It is obvious that in nothing like the space to which this work is limited could even the barest outline of all the opinions held by all the philosophers be crowded; nor would ten times the space suffice for an exposition of those opinions with anything like requisite detail. Brucker's vast compilation, and Ritter's laborious volumes, are open for any student desirous of more detailed knowledge; but even they are imperfect. My purpose is different; I write the Biography, not the Annals of Philosophy, and I am more concerned about the doctrines peculiar to each thinker than about those held by him in common with others. If I can ascertain and make intelligible the doctrines which formed the *additions* of each thinker to the previous stock, and which helped the evolution of certain

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* Karsten expresses the distinction well: 'Empedocles poeticè *adumbravit* idem quod tot seculis postea *mathematicis rationibus demonstratum est* à Newtono.'—*Philos. Græcorum Operum Reliquiæ*, p. xii.

germs of philosophy, collateral opinions will need only such mention as is necessary to make the whole course of speculation intelligible. Thus limited in scope, I may find myself more at ease in the discussion of those points on which attention should be fastened. More space can be given to fundamental topics. In restricting myself to Descartes, Spinoza, and Kant, without noticing Cartesians, Spinozists, and Kantians, I also on the same principle restrict myself to what is in each thinker peculiar to him, and directly allied to the course of philosophical development. The student who needs the Pandects of Philosophy will have to look elsewhere: this work only pretends to be a Summary.

A

BIOGRAPHICAL HISTORY OF PHILOSOPHY.

PART I.

ANCIENT PHILOSOPHY.

FIRST EPOCH.

SPECULATIONS ON THE NATURE OF THE UNIVERSE.

CHAPTER I.

THE PHYSICISTS.

§ I. Thales.

ALTHOUGH the events of his life, no less than the precise doctrines of his philosophy, are shrouded in mystery, and belong to the domain of fable, nevertheless Thales is very justly considered as the father of Greek Speculation. He made an epoch. He laid the foundation-stone of Greek philosophy. The step he took was small, but it was decisive. Accordingly, although nothing but a few of his tenets remain, and those tenets fragmentary and incoherent, we know enough of the general tendency of his doctrines to speak of him with some degree of certitude.

Thales was born at Miletus, a Greek colony in Asia Minor. The date of his birth is extremely doubtful; but the first year of the 36th Olympiad (B. C. 636) is generally accepted as correct. He belonged to one of the most illustrious families of Phœnicia, and took a conspicuous part in all the political affairs of his country,—a part which earned for him the highest esteem of his fellow-citizens. His immense activity in politics has been denied by later writers, as inconsistent with the tradition, countenanced by Plato, of his having spent a life of solitude and meditation; while on the other hand his affection for solitude has been questioned on the ground of his political activity. It seems to us that the two things are perfectly compatible. Meditation does not necessarily unfit a man for action; nor does an active life absorb all his time, leaving him none for meditation. The wise man will strengthen himself by meditation before he acts; and he will act, to test the truth of his opinions.

Miletus was one of the most flourishing Greek colonies; and at the period we are now speaking of, before either a Persian or a

Lydian yoke had crushed the energies of its population, it was a fine scene for the development of mental energies. Its commerce both by sea and land was immense. Its political constitution afforded the finest opportunities for individual development. Thales both by birth and education would naturally be fixed there, and would not travel into Egypt and Crete for the prosecution of his studies, as some maintain, although upon no sufficient authority. The only ground for the conjecture is the fact of Thales being a proficient in mathematical knowledge; and from very early times, as we see in Herodotus, it was the fashion to derive the origin of almost every branch of knowledge from Egypt. So little consistency is there however in this narrative of his voyages, that he is said to have astonished the Egyptians by showing them how to measure the height of their pyramids by their shadows. A nation so easily astonished by one of the simplest of mathematical problems could have had little to teach. Perhaps the strongest proof that he never travelled into Egypt—or that, if he travelled there, he never came into communication with the priests—is the absence of all trace, however slight, of any Egyptian doctrine in the philosophy of Thales which he might not have found equally well at home.

The distinctive characteristic of the Ionian School, in its first period, was its inquiry into the constitution of the universe. Thales opened this inquiry. It is commonly said: 'Thales taught that the principle of all things was water.' On a first glance, this will perhaps appear a mere extravagance. A smile of pity may greet it, accompanied by a reflection on the smiler's part, of the unlikelihood of *his* ever believing such an absurdity. But the serious student will be slow to accuse his predecessors of sheer and transparent absurdity. The history of Philosophy may be the history of errors; it is not a history of follies. All the systems which have gained acceptance have had a pregnant meaning, or they would not have been accepted. The meaning was proportionate to the opinions of the epoch, and as such is worth penetrating. Thales was one of the most extraordinary men that ever lived, and produced an extraordinary revolution. Such a man was not likely to have enunciated a philosophical thought which any child might have refuted. There was deep meaning in the thought, to him at least. Above all, there was deep meaning in the attempt to discover the origin of things. Let us endeavour to penetrate the meaning of his thought; let us see if we cannot in some shape trace its rise and growth in his mind.

It is characteristic of philosophical minds to reduce all imaginable diversities to one principle. As it is the inevitable tendency of religious speculation to reduce polytheism to monotheism, —to generalize all the supernatural powers into one expression,— so also was it the tendency of early philosophical speculation to reduce all possible modes of existence into one generalization of Existence itself.

Thales, speculating on the constitution of the universe, could not but strive to discover the one principle—the primary Fact—the *substance,* of which all special existences were but the *modes.* Seeing around him constant transformations—birth and death, change of shape, of size, and of mode of existence—he could not regard any one of these variable states of existence as Existence itself. He therefore asked himself, What is that *invariable Existence* of which these are the *variable states?* In a word, What is the *beginning* of things?

To ask this question was to open the era of philosophical inquiry. Hitherto men had contented themselves with accepting the world as they found it; with believing what they saw; and with adoring what they could not see.

Thales felt that there was a vital question to be answered relative to the beginning of things. He looked around him, and the result of his meditation was the conviction that Moisture was the Beginning.

He was impressed with this idea by examining the constitution of the earth. There also he found moisture everywhere. All things he found nourished by moisture; warmth itself he declared to proceed from moisture; the seeds of all things are moist. Water when condensed becomes earth. Thus convinced of the universal presence of water, he declared it to be the beginning of things.

Thales would all the more readily adopt this notion from its harmonizing with ancient opinions; such for instance as those expressed in Hesiod's Theogony, wherein Oceanus and Thetis are regarded as the parents of all such deities as had any relation to Nature. 'He would thus have performed for the popular religion that which modern science has performed for the book of Genesis: explaining what before was enigmatical.'*

It is this which gives Thales his position in Philosophy. Aristotle calls him ὁ τῆς τοιαύτης ἀρχηγὸς φιλοσοφίας, the man who made the

* Benj. Constant, *Du Polythéisme Romain,* i. 167.

first attempt to establish a physical Beginning, without the assistance of myths. He has consequently been accused of Atheism by modern writers; but Atheism is the growth of a much later thought, and one under no pretence to be attributed to Thales, except on the negative evidence of Aristotle's silence, which we conceive to be directly counter to the supposition, since it is difficult to believe Aristotle would have been silent had he thought Thales believed or disbelieved in the existence of anything deeper than Water, and *prior* to it. Water was the *ἀρχή*, the beginning of all. When Cicero, following and followed by writers far removed from the times of Thales,* says that 'he held water to be the beginning of things, but that God was the mind which created things out of the water,' he does violence to the chronology of speculation. We agree with Hegel that Thales could have had no conception of God as Intelligence, since *that* is the conception of a more advanced philosophy. We doubt whether he had any conception of a Formative Intelligence or of a Creative Power. Aristotle† very explicitly denies that the old Physicists made *any* distinction between Matter (*ἡ ὕλη καὶ τὸ ὑποκείμενον*) and the Moving Principle or Efficient Cause (*ἡ ἀρχὴ τῆς κινήσεως*); and he further adds that Anaxagoras was the first who arrived at the conception of a Formative Intelligence.‡ Thales believed in the Gods and in the *generation* of the Gods: they, as all other things, had their origin in water. This is not Atheism, whatever else it may be. If it be true that he held all things to be living, and the world to be full of demons or Gods, there is nothing inconsistent in this with his views about Moisture as the origin, the starting-point, the primary existence.

It is needless however to discuss what were the particular opinions of a thinker whose opinions have only reached us in fragments of uncritical tradition; all we certainly know is that the step taken by Thales was twofold in its influence:—first, to discover the Beginning, the *prima materia* of all things (*ἡ ἀρχή*); secondly, to select from among the elements that element which was most potent and omnipresent. To those acquainted with the history of the human mind, both these notions will be significant of an entirely new era.

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* And uncritically followed by many moderns who feel a difficulty in placing themselves at the point-of-view of ancient speculation.

† Arist. *Metaph.* i. 3.

‡ It will presently be seen that Diogenes was the first to conceive this.

§ II. Anaximenes.

Anaximander is by most historians placed after Thales. We agree with Ritter in giving that place to Anaximenes. The reasons on which we ground this arrangement are, first, that in so doing we follow our safest guide, Aristotle; secondly, that the doctrines of Anaximenes are the development of those of Thales; whereas Anaximander follows a totally different line of speculation. Indeed, the whole ordinary arrangement of the Ionian School seems to have proceeded on the conviction that each disciple not only contradicted his master, but also returned to the doctrines of his master's teacher. Thus Anaximander is made to succeed Thales, though quite opposed to him; whereas Anaximenes, who only carries out the principles of Thales, is made the disciple of Anaximander. When we state that 212 years, *i. e.* six or seven generations, are taken up by the lives of the four individuals said to stand in the successive relations of teacher and pupil, Thales, Anaximander, Anaximenes, and Anaxagoras, the reader will be able to estimate the value of the traditional relationship.

The truth is, only the names of the great leaders in philosophy were thought worth preserving; all those who merely applied or extended the doctrine were very properly consigned to oblivion. This is also the principle upon which the present history is composed. No one will therefore demur to our placing Anaximenes second to Thales: not as his disciple, but as his historical successor; as the man who, taking up the speculation where Thales and his disciples left it, transmitted it to his successors in a more developed form.

Of the life of Anaximenes nothing further is known than that he was born at Miletus, probably in the 63rd Olympiad (B. C. 529), others say in the 58th Olympiad (B. C. 548), but there is no possibility of accurately fixing the date. He is said to have discovered the obliquity of the Ecliptic by means of the gnomon.

Pursuing the method of Thales, he could not satisfy himself of the truth of his doctrine. Water was not to him the most significant element. He felt within him a something which moved him he knew not how, he knew not why; something higher than himself; invisible, but ever-present: this he called his life. His life he believed to be air. Was there not also without him, no less than within him, an ever-moving, ever-present, invisible air? The air which was within him, and which he called Life, was it not a part of the air which was without him? and, if so, was not this air the Beginning of Things?

He looked around him, and thought his conjecture was confirmed. The air seemed universal.* The earth was as a broad leaf resting upon it. All things were produced from it; all things were resolved into it. When he breathed, he drew in a part of the universal life. All things were nourished by air, as he was nourished by it.

To Anaximenes, as to most of the ancients, Air breathed and expired seemed the very stream of life, holding together all the heterogeneous substances of which the body was composed, giving them not only unity, but force, vitality. The belief in a living world—that is to say, of the universe as an organism—was very ancient, and Anaximenes, generalizing from the phenomena of individual life to universal life, made both dependent on Air. In many respects this was an advance on the doctrine of Thales, and the reader may amuse himself by finding its coincidence with some speculations of modern science. A grave chemist like Dumas can say, 'Les Plantes et les Animaux dérivent de l'air, ne sont que de l'air condensé, ils *viennent de l'air et y retournent*;' and Liebig, in a well-known passage of the *Chemical Letters*, eloquently expresses the same idea.

§ III. Diogenes of Apollonia.

Diogenes of Apollonia is the proper successor to Anaximenes, although, from the uncritical arrangement usually adopted, he is made to represent no epoch whatever. Thus, Tennemann places him after Pythagoras. Hegel, by a strange oversight, says that we know nothing of Diogenes but the name.

Diogenes was born at Apollonia, in Crete. More than this we are unable to state with certainty; but as he is said to have been a contemporary of Anaxagoras, we may assume him to have flourished about the 80th Olympiad (B. C. 460). His work *On Nature* was extant in the time of Simplicius (the sixth century of our era), who extracted some passages from it.

Diogenes adopted the tenet of Anaximenes respecting Air as the origin of things; but he gave a wider and deeper signification to the tenet by attaching himself more to its analogy with the Soul.† Struck with the force of this analogy, he was led to push the con-

* When Anaximenes speaks of Air, as when Thales speaks of Water, we must not understand these elements as they appear in *this* or *that* determinate form on earth, but as Water and Air pregnant with vital energy and capable of infinite transmutations.

† By Soul (ψυχή) we must understand Life in its most general meaning,

clusion to its ultimate limits. What is it, he may have asked himself, which constitutes Air the origin of things? Clearly its vital force. The Air is a Soul; therefore it is living and *intelligent*. But this Force or Intelligence is a higher thing than the Air, through which it manifests itself; it must consequently be prior in point of time; it must be the ἀρχή philosophers have sought. The Universe is a living being, spontaneously evolving itself, deriving its transformation from its own vitality.

There are two remarkable points in this conception, both indicative of very great progress in speculation. The first is the attribute of Intelligence, with which the ἀρχή is endowed. Anaximenes considered the primary substance to be an animated substance. Air was Life, in his system; but the Life did not necessarily imply Intelligence. Diogenes saw that Life was not only Force, but Intelligence; the Air which stirred within him not only *prompted*, but *instructed*. The Air, as the origin of all things, is necessarily an eternal, imperishable substance; but, as soul, it is also necessarily endowed with consciousness. 'It knows much,' and this knowledge is another proof of its being the primary substance; 'for without Reason,' he says, 'it would be impossible for all to be arranged duly and proportionately; and whatever object we consider will be found to be arranged and ordered in the best and most beautiful manner.' Order can result only from Intelligence; the Soul is therefore the first (ἀρχή). This conception was undoubtedly a great one; but that the reader may not exaggerate its importance, nor suppose that the rest of Diogenes' doctrines were equally reasonable and profound, we must for the sake of preserving historical truth advert to one or two of his applications of the conception. Thus:—

The world, as a living unity, must like other individuals derive its vital force from the Whole: hence he attributed to the world a set of respiratory organs, which he fancied he discovered in the stars. All creation and all material action were but respiration and exhalation. In the attraction of moisture to the sun, in the attraction of iron to the magnet, he equally saw a process of respiration. Man is superior to brutes in intelligence because he inhales a purer air than brutes who bow their heads to the ground.

These *naïve* attempts at the explanation of phenomena will suffice

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rather than Mind in the modern sense. Thus the treatise of Aristotle περὶ ψυχῆς is a treatise on the Vital Principle, *including* Mind, not a treatise on Psychology.

to show that although Diogenes had made a large stride, he had accomplished very little of the journey.

The second remarkable point indicated by his system is the manner in which it closes the inquiry opened by Thales. Thales, starting from the conviction that one of the four elements was the origin of the world, and Water that element, was followed by Anaximenes, who thought that not only was Air a more universal element than Water, but that, being life, it must be the universal Life. To him succeeded Diogenes, who saw that not only was Air Life, but Intelligence, and that Intelligence must have been the First of Things.

We concur therefore with Ritter in regarding Diogenes as the last philosopher attached to the *Physical* method; and that in his system the method receives its consummation. Having thus traced one great line of speculation, we must now cast our eyes upon what was being contemporaneously evolved in another direction.

CHAPTER II.

THE MATHEMATICIANS.

§ I. Anaximander of Miletus.

'AS we now, for the first time in the history of Greek Philosophy, meet with contemporaneous developments, the observation will not perhaps be deemed superfluous that in the earliest times of philosophy, historical evidences of the reciprocal influence of the two lines either entirely fail or are very unworthy of credit; on the other hand, the internal evidence is of very limited value, because it is impossible to prove a complete ignorance in one, of the ideas evolved and carried out in the other; while any argument drawn from an apparent acquaintance therewith is far from being extensive or tenable, since all the olden philosophers drew from one common source—the national habit of thought. When indeed these two directions had been more largely pursued, we shall find in the controversial notices sufficient evidence of an active conflict between these very opposite views of nature and the universe. In truth, when we call to mind the inadequate means at the command of the earlier philosophers for the dissemination of their opinions, it appears extremely probable that their respective systems were for a long time known only within a very narrow circle. On the supposition however that the philosophical impulse of these times was the result of a real national want, it becomes at once probable that the various elements began to show themselves in Ionia nearly at the same time, independently and without any external connection.'*

The chief of the school we are now about to consider was Anaximander, of Miletus, whose birth may be dated in the 42nd Olympiad (B. C. 610). He is sometimes called the friend and sometimes the disciple of Thales. We prefer the former relation; the latter is at any rate not the one in which this history can regard him. His reputation, both for political and scientific knowledge, was very great; and many important inventions are ascribed to him, amongst

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* Ritter, i. 265.

others that of the sun-dial and the sketch of a geographical map. His calculations of the size and distance of the heavenly bodies were committed to writing in a small work which is said to be the earliest of all philosophical writings. He was passionately addicted to mathematics, and framed a series of geometrical problems. He was the leader of a colony to Apollonia; and he is also reported to have resided at the court of the Tyrant Polycrates, in Samos, where also lived Pythagoras and Anacreon.

No two historians are agreed in their interpretation of Anaximander's doctrines; few indeed are agreed as to the historical position he is to occupy.

Anaximander is stated to have been the first to use the term ἀρχή for the Beginning of things. What he meant by this term *principle* is variously interpreted by the ancient writers; for, although they are unanimous in stating that he called it the *infinite* (τὸ ἄπειρον), what he understood by the infinite is yet undecided.*

On a first view, nothing can well be less intelligible than this tenet: 'The Infinite is the origin of all things.' It either looks like the monotheism of a far later date,† or like the word-jugglery of mysticism. To our minds it is neither more nor less difficult of comprehension than the tenet of Thales, that 'Water is the origin of all things.' Let us cast ourselves back in imagination into those early days, and see if we cannot account for the rise of such an opinion.

On viewing Anaximander side by side with his great predecessor and friend, Thales, we cannot but be struck with the exclusively abstract tendency of his speculations. Instead of the meditative Metaphysician, we see a Geometrician. Thales, whose famous maxim, 'Know thyself,' was essentially concrete, may serve as a contrast to Anaximander, whose axiom, 'The Infinite is the origin of all things,' is the ultimate effort of abstraction. Let us concede to him this tendency; let us see in him the geometrician rather than the moralist or physicist; let us endeavour to understand how all things presented themselves to his mind in the abstract form,

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* Ritter, i. 267.

† Which it certainly could not have been. To prevent any misconception of the kind, we may merely observe that the Infinite here meant, was not even the Limitless Power, much less the Limitless Mind, implied in the modern conception. In Anaxagoras, who lived a century later, we find τὸ ἄπειρον to be no more than vastness.—See Simplicius, *Phys.* 33, *b*, quoted in Ritter.

and how mathematics was the science of sciences, and we shall then perhaps be able to understand his tenets.

Thales, in searching for the origin of things, was led, as we have seen, to maintain Water to be that origin. But Anaximander, accustomed to view things in the abstract, could not accept so concrete a thing as Water: something more ultimate in the analysis was required. Water itself, which in common with Thales he held to be the material of the universe, was it not subject to *conditions?* What were those conditions? This Moisture, of which all things are made, does it not cease to be moisture in many instances? And can that which is the origin of all, ever change, ever be confounded with individual things? Water itself is a Thing; but a Thing cannot be All Things.

These objections to the doctrine of Thales caused him to reject, or rather to modify, that doctrine. The *ἀρχή*, he said, was not Water; it must be the Unlimited All, *τὸ ἄπειρον*.

Vague and profitless enough this theory will doubtless appear. The abstraction 'All' will seem a mere distinction in words. But in Greek Philosophy, as we shall repeatedly notice, *distinctions in words* were generally equivalent to *distinctions in things*. And if the reader reflects how the mathematician, by the very nature of his science, is led to regard abstractions as entities,—to separate *form*, and treat of it as if it alone constituted *body*,—there will be no difficulty in conceiving Anaximander's distinction between all Finite Things and the Infinite All.

It is thus only we can explain his tenet; and this explanation seems borne out by the testimony of Aristotle and Theophrastus, who agree, that by the Infinite he understood the multitude of elementary parts out of which individual things issued by separation. '*By separation:*' the phrase is significant. It means the passage from the abstract to the concrete,—the All realizing itself in the Individual Thing. Call the Infinite by the name of Existence, and say, 'There is Existence *per se*, and Existence *per aliud;* the former is *Existence*, the ever-living fountain whence flow the various *existing Things.*' In this way we may, perhaps, make Anaximander's meaning intelligible.

Let us now hear Ritter. Anaximander is 'represented as arguing that the primary substance must have been infinite to be all-sufficient for the limitless variety of produced things with which we are encompassed. Now, although Aristotle especially characterizes this infinite as a mixture, we must not think of it as a mere multi-

plicity of primary material elements; for to the mind of Anaximander it was a Unity immortal and imperishable—an ever-producing energy. This production of individual things he derived from an eternal *motion of the Infinite.*'

The primary Being, according to Anaximander, is unquestionably a Unity. It is One yet All. It comprises within itself the multiplicity of elements from which all mundane things are composed; and these elements only need to be separated from it to appear as separate phenomena of nature. Creation is the *decomposition of the Infinite*. How does this decomposition originate? By the eternal motion which is the condition of the Infinite. 'He regarded,' says Ritter, 'the Infinite as being in a constant state of incipiency, which, however, is nothing but a constant secretion and concretion of certain immutable elements; so that we might well say, the parts of the whole are constantly changing, while the whole is unchangeable.'

The idea of elevating an abstraction into a Being—the origin of all things—is baseless enough; it is as if we were to say, 'There are numbers 1, 2, 3, 20, 80, 100; but there is also *Number* in the abstract, of which these individual numbers are but the concrete realization: without *Number* there would be no numbers.' Yet so difficult is it for the human mind to divest itself of its own abstractions, and to consider them as no more than as abstractions, that this error lies at the root of the majority of philosophical systems. It may help the reader to some tolerance of Anaximander's error to learn that celebrated philosophers of modern times, Hegel and others, have maintained precisely the same tenet, though somewhat differently worded: they say, that Creation is God passing into activity, but not exhausted by the act; in other words, *Creation is the mundane existence of God;* finite Things are but the eternal motion, the *manifestation* of the All.

Anaximander separated himself from Thales by regarding the abstract as of higher significance than the concrete: and in this tendency we see the origin of the Pythagorean school, so often called the mathematical school. The speculations of Thales tended towards discovering the material constitution of the universe; they were founded, in some degree, upon an induction from observed facts, however imperfect that induction might be. The speculations of Anaximander were *wholly deductive;* and, as such, tended towards mathematics, the science of pure deduction.

As an example of this mathematical tendency we may allude to

his physical speculations. The central point in his cosmopœia was the earth: for, being of a cylindrical form, with a base in the ratio 1 : 3 to its altitude, it was retained in its centre by the aid and by the equality of its distances from all the limits of the world.

From the foregoing exposition the Reader may judge of the propriety of that ordinary historical arrangement which places Anaximander as the successor of Thales. It is clear that he originated one of the great lines of speculative inquiry, and that one, perhaps, the most curious in all antiquity. By Thales, Water, the origin of things, was held to be a real physical element, which in the hands of his successors became gradually transformed into a merely *representative* emblem of something wholly different (Life or Mind); and the element which lent its name as the representative was looked upon as a secondary phenomenon, derived from that primary force of which it was the emblem. Water was the real primary element with Thales; with Diogenes, Water (having previously been displaced for Air) was but the emblem of Mind. Anaximander's conception of the All, though abstract, is nevertheless to a great degree physical: it is *All Things*. His conception of the Infinite was not ideal; it had not passed into the state of a symbol; it was the mere *description* of the primary fact of existence. Above all, it involved no conception of intelligence except as a mundane finite thing. His τὸ ἄπειρον was the Infinite Existence, but not the Infinite Mind. This later development we shall meet with hereafter in the Eleatics.

§ II. Pythagoras.

The life of Pythagoras is enshrouded in the dim magnificence of legends, from which the attempt to extricate it is hopeless. Certain general indications are doubtless to be trusted; but they are few and vague.

As a specimen of the trouble necessary to settle any one point in this biography, we will here cite the various dates given by ancient authors and modern scholars as the results of their inquiries into his birth. Diodorus Siculus says 61st Olympiad; Clemens Alex., 62nd Ol.; Eusebius, 63rd or 64th Ol.; Stanley, 53rd Ol.; Gale, 60th Ol.; Dacier, 47th Ol.; Bentley, 43rd Ol.; Lloyd, 43rd Ol.; Dodwell, 52nd Ol.; Ritter, 49th Ol.; Thirlwall, 51st Ol.: so that the accounts vary within the limits of eighty-four years. If we must make a choice, we should decide with Bentley; not only from respect for that magnificent scholar, but because it agrees with the

probable date of the birth of one known to have been Pythagoras's friend and contemporary, Anaximander.

Pythagoras is usually classed amongst the great founders of Mathematics; and this receives confirmation from what we know of the general scope of his labours, and from the statement that he was chiefly occupied with the determination of extension and gravity, and measuring the ratios of musical tones. His science and skill are of course absurdly exaggerated, as indeed is every portion of his life. Fable assigns him the place of a saint, a worker of miracles, and a teacher of more than human wisdom. His very birth was marvellous, some accounts making him the son of Hermes, others of Apollo: in proof of the latter, he is said to have exhibited a golden thigh. With a word he tamed the Daunian bear, which was laying waste the country; with a whisper he restrained an ox from devouring beans. He was heard to lecture at different places, such as Metapontum and Taurominium, on the same day and at the same hour. As he crossed the river, the river-god saluted him with 'Hail, Pythagoras!' and to him the harmony of the Spheres was audible music.

Fable enshrines these wonders. But that they could exist, even as legendary lore, is significant of the greatness of Pythagoras. It is well said by Sir Lytton Bulwer that 'not only all the traditions respecting Pythagoras, but the certain fact of the mighty effect that in his single person he afterwards wrought in Italy, prove him also to have possessed that nameless art of making a personal impression upon mankind, and creating individual enthusiasm, which is necessary to those who obtain a moral command, and are the founders of sects and institutions. It is so much in conformity with the manners of the time and the objects of Pythagoras, to believe that he diligently explored the ancient religious and political systems of Greece, from which he had been long a stranger, that we cannot reject the traditions (however disfigured with fable) that he visited Delos, and affected to receive instructions from the pious ministrants of Delphi.'* It is no ordinary man whom Fable exalts into its poetical region. Whenever you find romantic or miraculous deeds attributed, be certain that the hero was great enough to sustain the weight of this crown of fabulous glory.

But the fact thus indicated is a refutation of the ordinary tradition of his having borrowed all his learning and philosophy

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* *Athens, its Rise and Fall*, ii. 412.

from the East. Could not so great a man dispense with foreign teachers? Assuredly he could, and did. But his countrymen, by a very natural process of thought, looked upon his greatness as the result of his Eastern education. No man is a prophet in his own country; and the imaginative Greeks were peculiarly prone to invest the distant and the foreign with striking attributes. They could not believe in wisdom springing up from amongst them; they turned to the East as to a vast and unknown region, whence all novelty, even of thought, must come.

When we consider, as Ritter observes, how Egypt was peculiarly the wonder-land of the olden Greeks, and how, even in later times, when it was so much better known, it was still, as it is to this day, so calculated to excite awe by the singular character of its people, which, reserved in itself, was always obtruding on the observer's attention through the stupendous structures of national architecture, we can easily imagine how the Greeks were led to establish some connection between this mighty East and their great Pythagoras.

But, although we can by no means believe that Pythagoras was much indebted to Egypt for his doctrines, we are not sceptical as to the account of his having travelled there. Samos was in constant intercourse with Egypt. If Pythagoras had travelled into Egypt, or indeed listened to the relations of those who had done so, he would have thereby obtained as much knowledge of Egyptian customs as appears in his system; and that without having had the least instruction from the Priesthood. The doctrine of metempsychosis was a public doctrine with the Egyptians; though, as Ritter says, he might not have been indebted to them even for that. Funeral customs and abstinence from particular kinds of food were things to be noticed by any traveller. But the fundamental objection to Pythagoras having been instructed by the Egyptian Priests, is to be sought in the constitution of the priestly caste itself. If the priests were so jealous of instruction as not to bestow it even on the most favoured of their countrymen unless belonging to their caste, how unreasonable to suppose that they would bestow it on a stranger, and one of a different religion!

The ancient writers were sensible of this objection. To get rid of it they invented a story which we shall give as it is given by Brucker. Polycrates was in friendly relations with Amasis, King of Egypt, to whom he sent Pythagoras, with a recommendation to enable him to gain access to the Priests. The King's authority was not sufficient to prevail on the Priests to admit a stranger to their

mysteries: they referred Pythagoras therefore to Thebes, as of greater antiquity. The Theban Priests were awed by the Royal mandate, but were loath to admit a stranger to their rites. To disgust the novice, they forced him to undergo several severe ceremonies, amongst which was circumcision. But he could not be discouraged. He obeyed all their injunctions with such patience that they resolved to take him into their confidence. He spent two-and-twenty years in Egypt, and returned perfect master of all science. This is not a bad story: but there is one objection to it —it is not substantiated.

To Pythagoras the invention of the word Philosopher is ascribed. When he was in Peloponnesus he was asked by Leontius, what was his art. 'I have no art; I am a philosopher,' was the reply. Leontius never having heard the name before, asked what it meant. Pythagoras gravely answered, 'This life may be compared to the Olympic games: for as in this assembly some seek glory and the crowns; some by the purchase or by the sale of merchandise seek gain; and others, more noble than either, go there neither for gain nor for applause, but solely to enjoy this wonderful spectacle, and to see and know all that passes. We, in the same manner, quit our country, which is Heaven, and come into the world, which is an assembly where many work for profit, many for gain, and where there are but few who, despising avarice and vanity, study nature. It is these last whom I call Philosophers; for as there is nothing more noble than to be a spectator without any personal interest, so in this life the contemplation and knowledge of nature are infinitely more honourable than any other application.' It is necessary to observe that the ordinary interpretation of Philosopher, as Pythagoras meant it, a 'lover of wisdom,' is only accurate where the utmost extension is given to the word 'lover.' Wisdom must be the 'be-all and the end-all here' of the philosopher, and not simply a taste or a pursuit. It must be his mistress, to whom a life is devoted. This was the meaning of Pythagoras. The word which had before designated a wise man was σοφός. But he wished to distinguish himself from the *Sophoi,* or philosophers of his day, by name, as he had done by system. What was the meaning of *Sophos?* Unquestionably what we mean by a wise man, as distinct from a philosopher; one whose wisdom is *practical,* and turned to practical purposes; one who loves wisdom not for its own sake so much as for the sake of its uses. Now Pythagoras loved wisdom for its own sake. Contemplation was to him the highest exercise of

humanity: to bring wisdom down to the base purposes of life was desecration. He called himself therefore a Philosopher—a Lover of Wisdom—to demarcate himself from those who sought Wisdom only as a power to be used for ulterior ends.

This interpretation of the word Philosopher may explain some of his opinions. Above all, it explains the constitution of his Secret Society, into which no one was admitted except after a severe initiation. For five years the novice was condemned to silence. Many relinquished the task in despair; they were unworthy of the contemplation of pure wisdom. Others, in whom the tendency to loquacity was observed to be less, had the period commuted. Various humiliations had to be endured: various experiments were made of their powers of self-denial. By these Pythagoras judged whether they were worldly-minded, or whether they were fit to be admitted into the sanctuary of science. Having purged their souls of the baser particles by purifications, sacrifices, and initiations, they were admitted to the sanctuary, where the higher part of the soul was purged by the knowledge of truth, which consists in the knowledge of immaterial and eternal things. For this purpose he commenced with Mathematics, because, as they just preserve the medium between corporeal and incorporeal things, they can alone draw off the mind from Sensible things and conduct them to Intelligibles.

Shall we wonder, then, that he was venerated as a God? He who could transcend all earthly struggles, and the great ambitions of the greatest men, to live only for the sake of wisdom, was he not of a higher stamp than ordinary mortals? Well might later historians picture him as clothed in robes of white, his head crowned with gold, his aspect grave, majestical, and calm; above the manifestation of any human joy, of any human sorrow; enwrapt in contemplation of the deeper mysteries of existence; listening to music and the hymns of Homer, Hesiod, and Thales, or listening to the harmony of the spheres. And to a lively, talkative, quibbling, active, versatile people like the Greeks, what a grand phenomenon must this solemn, earnest, silent, meditative man have appeared!

From Sir Lytton Bulwer's *Athens* we borrow the following account of the political career of Pythagoras:—"Pythagoras arrived in Italy during the reign of Tarquinius Superbus, according to the testimony of Cicero and Aulus Gellius, and fixed his residence in Croton, a city in the bay of Tarentum, colonized by Greeks of the Achæan tribe. If we may lend a partial credit to the extravagant fables of later disciples, endeavouring to extract from florid super-

addition some original germ of simple truth, it would seem that he first appeared in the character of a teacher of youth, and, as was not unusual in those times, soon rose from the preceptor to the legislator. Dissensions in the city favoured his objects. The Senate (consisting of a thousand members, doubtless of a different race from the body of the people; the first the posterity of the settlers, the last the native population) availed itself of the arrival and influence of an eloquent and renowned philosopher. He lent himself to the consolidation of aristocracies, and was equally inimical to democracy and tyranny. But his policy was that of no vulgar ambition. He refused, at least for a time, ostensible power and office, and was contented with instituting an organized and formidable society, not wholly dissimilar to that mighty Order founded by Loyola in times comparatively recent. The disciples admitted into this society underwent examination and probation: it was through degrees that they passed into its higher honours, and were admitted into its deeper secrets. Religion made the basis of the fraternity, but religion connected with human ends of advancement and power. He selected the three hundred who at Croton formed his Order, from the noblest families, and they were professedly reared to know themselves, that so they might be fitted to command the world. It was not long before this society, of which Pythagoras was the head, appears to have supplanted the ancient Senate, and obtained the legislative administration. In this Institution Pythagoras stands alone; no other founder of Greek philosophy resembles him. By all accounts he also differed from the other sages of his time in his estimation of the importance of women. He is said to have lectured to, and taught them. His wife was herself a philosopher, and fifteen disciples of the softer sex rank among the prominent ornaments of his school. An Order based upon so profound a knowledge of all that can fascinate or cheat mankind could not fail to secure a temporary power. His influence was unbounded in Croton: it extended to other Italian cities; it amended or overturned political constitutions; and had Pythagoras possessed a more coarse and personal ambition, he might perhaps have founded a mighty dynasty, and enriched our social annals with the result of a new experiment. But his was the ambition not of a hero, but a sage. He wished rather to establish a system than to exalt himself. His immediate followers saw not all the consequences that might be derived from the fraternity he founded; and the political designs of his gorgeous and august philosophy, only for awhile successful, left

behind them but the mummeries of an impotent freemasonry, and the enthusiastic ceremonies of half-witted ascetics.

'It was when this power, so mystic and so revolutionary, had, by the means of branch societies, established itself throughout a considerable portion of Italy, that a general feeling of alarm and suspicion broke out against the sage and his sectarians. The anti-Pythagorean risings, according to Porphyry, were sufficiently numerous and active to be remembered long generations afterwards. Many of the sage's friends are said to have perished, and it is doubtful whether Pythagoras himself fell a victim to the rage of his enemies, or died, a fugitive, amongst his disciples at Metapontum. Nor was it until nearly the whole of Lower Italy was torn by convulsions, and Greece herself drawn into the contest as pacificator and arbiter, that the ferment was allayed. The Pythagorean institutions were abolished, and the timocratic democracies of the Achæans rose upon the ruins of those intellectual but ungenial oligarchies.

'Pythagoras committed a fatal error when, in his attempt to revolutionize society, he had recourse to aristocracies for his agents. Revolutions, especially those influenced by religion, can never be worked out but by popular emotions. It was from this error of judgment that he enlisted the people against him; for by the account of Neanthes, related by Porphyry, and indeed from all other testimony, it is clearly evident that to popular not party commotion his fall must be ascribed. It is no less clear that after his death, while his philosophical sect remained, his political code crumbled away. The only seeds sown by philosophers which spring up into great States, are those that, whether for good or evil, are planted in the hearts of the Many.'

We cannot omit the story which so long amused the world, respecting his discovery of the musical chords. Hearing one day, in the shop of a blacksmith, a number of men striking successively a piece of heated iron, he remarked that all the hammers, except one, produced harmonious chords, viz. the octave, the fifth, and the third; but the sound between the fifth and the third was discordant. On entering the workshop, he found the diversity of sounds was owing to the difference in the *weight* of the hammers. He took the exact weights, and on reaching home suspended four strings of equal dimensions, and hanging a weight at the end of each of the strings equal to the weight of each hammer, he struck the strings, and found the sounds correspond with those of the hammers. He then proceeded to the formation of a musical scale.

On this, Dr. Burney, in his *History of Music*, remarks: 'Though both hammers and anvil have been swallowed by ancients and moderns with most ostrich-like digestion, yet upon examination and experiment it appears that hammers of different size and weight will no more produce different tones upon the same anvil, than bows or clappers of different size will from the same string or bell.'

We close here our account of the life of Pythagoras, reminding the reader that one great reason for the fabulous and contradictory assertions collected together in histories and biographies arises from the uncritical manner in which the 'authorities' have been used. To take only one 'authority' as an example: Iamblicus wrote his life of Pythagoras with a view of combating the rising doctrine of Christianity, and of opposing by implication a Pagan philosopher to Christ. The miracles that were attributed to Pythagoras have no better source than this.

§ III. Philosophy of Pythagoras.

There is no system in the whole course of our history more difficult to seize and represent accurately than that commonly known as the Pythagorean. It has made prodigious noise in the world; so much so as to be often confounded with its distant echoes. An air of mystery, always inviting to a large class, surrounds it. The marvellous relations concerning its illustrious founder, the supposed assimilation it contains of various elements of Eastern speculation, and the supposed symbolical nature of its doctrines, have all equally combined to render it attractive and contradictory. Every dogma in it has been traced to some prior philosophy. Not a vestige will remain to be called the property of the teacher himself, if we restore to the Jews, Indians, Egyptians, Chaldeans, Phœnicians, nay even Thracians, those various portions which he is declared to have borrowed from them.

All this pretended plagiarism we incline to think extremely improbable: Pythagoras was a consequence of Anaximander; and his doctrines, in as far as we can gather from their leading tendency, were but a continuation of that abstract and deductive philosophy of which Anaximander was the originator.

At the outset we must premise, that whatever interest there may be in following out the particular opinions recorded as belonging to Pythagoras, such a process is quite incompatible with our plan. The greatest uncertainty still exists, and must for ever exist amongst

scholars, respecting the genuineness of those opinions. Even such as are recorded by trustworthy authorities are always vaguely attributed by them to 'the Pythagoreans,' not to Pythagoras. Modern criticism has clearly shown that the works attributed to Timæus and Archytas are spurious; and that the supposed treatise of Ocellus Lucanus on the 'Nature of the All' cannot even have been written by a Pythagorean. Plato and Aristotle, the only ancient writers who are to be trusted in this matter, do not attribute any peculiar doctrines to Pythagoras. The reason is simple. Pythagoras taught in secret; and never wrote. What he taught his disciples it is impossible accurately to learn from what those disciples themselves taught. His influence over their minds was unquestionably immense; and this influence would communicate to his school a distinctive *tendency*, but not one accordant doctrine; for each scholar would carry out that tendency in the direction which best suited his tastes and powers.*

The extreme difficulty of ascertaining accurately what Pythagoras thought, or even what his disciples thought, will not embarrass us if we can but ascertain the general tendency of their speculations, and, above all, the peculiarity of their method. For this difficulty—which, to the critical historian insuperable, only affects us indirectly—renders indeed our endeavour to seize the characteristic method and tendency more hazardous and more liable to contradiction; but it does not compel us to interrupt our march for the sake of storming every individual fortress of opinion we may encounter on our way. We have to trace out the map of the philosophical world; we must be careful to ascertain the great outlines of each country: this we may be enabled to do without absolutely being acquainted with the *internal* varieties of that country, for geographers are not bound to be also geologists.

What were the method and tendency of the Pythagorean school? The method, purely deductive; the tendency, wholly towards the

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* We assume this to be the case; but we do not assume it groundlessly. We are guided by the striking analogy afforded by the celebrated Saint-Simon. Like Pythagoras, the Frenchman published no complete account of his system. He communicated it to his disciples; and, as his influence over their minds was almost unparalleled, the *tendency* of his philosophy took deep root, though producing very different fruits in different minds. Those moderately acquainted with French writers will appreciate this when we simply enumerate MM. Augustin Thierry, Auguste Comte, Pierre Leroux, Michel Chevalier, Le Père Enfantin, and M. Bazard, all disciples of Saint-Simon.

consideration of abstractions as the only true materials of science. Hence the name not unfrequently given to that school, of 'the Mathematical.' The list of Pythagoreans embraces the greatest names in mathematics and astronomy,—Archytas and Philolaus, and subsequently Hipparchus and Ptolemy.*

We may now perhaps, in some sort, comprehend what Pythagoras meant when he taught that *Numbers* were the *principles of Things*: τοὺς ἀριθμοὺς αἰτίους εἶναι τῆς οὐσίας,† or, to translate more literally, 'Numbers are the cause of the material existence of Things;' οὐσία being here evidently the expression of concrete existence. This is confirmed by the wording of the formula given elsewhere by Aristotle, that Nature is *realized* from Numbers: τὴν φύσιν ἐξ ἀριθμῶν συνιστᾶσι.‡ Or again: Things are but the *copies* of Numbers: μίμησιν εἶναι τὰ ὄντα τῶν ἀριθμῶν.§ What Pythagoras meant was, that Numbers were the *ultimate nature* of things. Anaximander saw that things in themselves are not final; they are constantly changing both position and attributes; they are variable, and the principle of existence must be *invariable*; he called that invariable existence THE ALL.

Pythagoras saw that there was an invariable existence lying beneath these varieties; but he wanted some more definite expression for it, and he called it Number. Thus each individual thing may change its position, its mode of existence; all its peculiar attributes may be destroyed except one, namely its numerical attribute. It is always '*One*' thing; nothing can destroy that numerical existence. Combine the Thing in every possible variety of ways, and it still remains 'One;' it cannot be less than 'one,' it cannot be made more than 'one.' Resolve it into its minutest particles, and each particle is 'one.' Having thus found that numerical existence was the only invariable existence, he was easily led to proclaim all Things to be but copies of Numbers. 'All phenomena must originate in the simplest elements,' says Sextus Empiricus, 'and it would be contrary to reason to suppose the Principle of the Universe to participate in the nature of sensible phenomena. The *Principia* are consequently not only invisible and intangible, but also incorporeal.'

As numerical existence is the ultimate state at which analysis can

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* Æschylus, a disciple of Pythagoras, makes his Titan boast of having discovered for men, Number, the highest of the sciences; Καὶ μὴν ἀριθμὸν, ἔξοχον σοφισμάτων, ἐξεῦρον αὐτοῖς.—*Prom.*, 459.

† Aristot. *Metaph.* i. 6. ‡ *De Cœlo*, iii. 1. § *Metaph.* i. 6.

arrive with respect to finite Things, so also is it the ultimate state at which we can arrive with respect to the Infinite, or Existence in itself. The Infinite, therefore, must be *One*. One is the absolute number; it exists in and by itself; it has no need of any relation with anything else, not even with any other number; *Two* is but the relation of One to One. All modes of existence are but finite aspects of the Infinite; so all numbers are but numerical relations of the One. In the original One all numbers are contained, and consequently the elements of the whole world.

Observe, moreover, that One is necessarily the ἀρχή—the beginning of things so eagerly sought by philosophers, since, wherever you begin, you must begin with One. Suppose the number be three, and you strike off the initial number to make two, the second then will be *One*. In a word, One is the Beginning of all things.

The verbal quibble on which this, as indeed the whole system reposes, need not excite any suspicion of the sincerity of Pythagoras. The Greeks were unfortunately acquainted with no language but their own: and, as a natural consequence, mistook distinctions in language for distinctions in things. It has been well said by Dr. Whewell, that 'all the first attempts to comprehend the operations of Nature led to the introduction of abstract conceptions, vague indeed, but not therefore unmeaning. And the next step in philosophizing necessarily was to make those vague abstractions more clear and fixed, so that the logical faculty should be able to employ them securely and coherently. But there were two ways of making this attempt; the one, by examining the words only, and the thoughts which they call up; the other, by attending to the facts and things which bring these abstract terms into use. The Greeks followed the *verbal* or *notional* course, and failed.'*

It is only by means of the above explanation that we can any way credit the belief in distinctions so wire-drawn as those of Pythagoras; it is only thus that we can understand how he could have held that Numbers were Beings. Aristotle attributes this philosophy to the fondness of Pythagoras for mathematics, which concerns itself with the abstract, not with the material existence of sensible things; but surely this is only half the explanation? The mathematicians in our day not only reason entirely with symbols, which stand as the representatives of things, without having the least affinity or resemblance to the things (being wholly arbitrary *marks*), but very

* *History of the Inductive Sciences*, i. 34.

many of these men never trouble themselves at all with inspecting the things about which they reason by means of symbols. Much of the science of Astronomy is carried on by those who never use a telescope; it is carried on by figures upon paper, and calculations of those figures. Because, however, astronomers use numbers as symbols, they do not suppose that numbers are more than symbols. Pythagoras was not able to make this distinction. He believed that numbers were things in reality, not merely in symbol. When therefore Ritter says that the Pythagorean formula 'can only be taken symbolically,' he appears to us to commit a great anachronism, and to antedate by several centuries a mode of thought at variance with all we know of Greek Philosophy; at variance also with the express testimony of Aristotle, who says, 'The Pythagoreans did not separate Numbers from Things. They held Number to be the Principle and Material of things, no less than their essence and power.'* The notion that because we, in the present state of philosophy, cannot conceive Numbers otherwise than as symbols, therefore Pythagoras must have conceived them in the same way, is one which has been very widely spread, but which we hold to be as great an anachronism as Shakespeare's Hector quoting Aristotle, or Racine exhibiting the etiquette of Versailles in the camp at Aulis. And Ritter himself, after having stated with considerable detail the various points in this philosophy, admits that the essential doctrine rests on 'the derivation of all in the world from mathematical relations, and on the resolution of the relations of space and time into those of units or numbers. All proceeds from the original one, or primary number, or from the plurality of units or numbers into which the one in its life-development divides itself.' Now, to suppose that this doctrine was simply mathematical, and not mathematico-cosmological, is to violate all principles of historical philosophy; for it is to throw the opinions of our day into the period of Pythagoras. For a final proof, consider the formula, *μίμησιν εἶναι τὰ ὄντα τῶν ἀριθμῶν*, 'Things are the copies of Numbers.' This formula, which of all others is the most favourable to the notion we are combating, will

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* *Metaph.* i. 5. Perhaps it would be more accurate to say, 'Numbers are the beginning of things, the *cause of their material existence* (ὕλην τοῖς οὐσι: Aristotle has before defined ὕλη as *causa materialis*, cap. 3) and *of their modifications* (ὡς πάθη τε καὶ ἕξεις).'

The whole chapter should be consulted by those who believe in the symbolical use of numbers; a belief Aristotle had certainly no suspicion of. I have translated all the passages bearing on this point at the close of this Section.

on a close inspection exhibit the real meaning of Pythagoras to be directly the reverse of symbolical. Symbols are arbitrary marks, bearing no resemblance to the things they represent; *a*, *b*, *c*, *x* are but letters of the alphabet; the mathematician makes them the symbols of quantities, or of things; but no one would call *x* the *copy* of an unknown quantity. But what is the meaning of Things being copies of Numbers, if they are Numbers in essence? The meaning we must seek in anterior explanations. We shall there find that Things are the *concrete existences* of *abstract Existence;* and that when Numbers are said to be the *principia,* it is meant that the *forms* of material things, the original essences, which remain invariable, are Numbers.* Thus a stone is One stone; as such it is a copy of One; it is the realization of the abstract One into a concrete stone. Let the stone be ground to dust, and the particle of dust is still a copy, another copy of the One.

The reader will bear in mind that we have only a few mystical expressions, such as, 'Number is the principle of Things,' handed down to us as the doctrines of a Thinker who created a considerable school, and whose influence on philosophy was undeniably immense. We have to interpret these expressions as we best can. Above all, we have to give them some appearance of plausibility; and this not so much an appearance of plausibility to modern thinkers as what would have been plausible to the ancients. Now, as far as we have familiarized ourselves with the antique modes of thought, our interpretation of Pythagoras is one which, if not the true, is at any rate very analogous to it: by such a logical process he *might* have arrived at his conclusions, and for our purpose this is almost the same as if he had arrived at them by it.

This history has but to settle two questions respecting Pythagoras: first, did he regard Numbers as symbols merely, or as entities? Second, if he regarded them as entities, how could he have arrived at such an opinion? The second of these questions has been answered in a hypothetical manner in the remarks just made; but of course the explanation is worthless if the first question be negatived, and to that question therefore we now turn. If we are to accept the authority of Aristotle, the question is distinctly and decisively answered, as we have seen, in favour of the *reality* of Num-

* Hence we must caution against supposing Pythagoras to have anticipated the theory of 'definite proportions.' Numbers are not the laws of combination, nor the expression of those laws, but the essences which remain invariable under every variety of combination.

bers. It is true that doubts are thrown on the authority of Aristotle, who is said to have misunderstood or misrepresented the Pythagorean doctrine; but when we consider the comprehensiveness and exactness of Aristotle's mighty intellect; when we consider further that he had paid more than his usual attention to the doctrines of the Pythagoreans, having written a special treatise thereon, we shall be slow to reject any statement he may make, unless *better* evidence is produced; and where can better evidence be sought? Either we must accept Aristotle, or be silent on the whole matter; unless, indeed, we prefer—as many prefer—our own sagacity to his authority. It may be stated as a final consideration, that the view taken by the Stagirite is in perfect conformity with the opinions of Anaximander; so that given, the philosophy of the master, we might *à priori* deduce the opinions of the pupil.

The nature of this Work forbids any detailed account of the various opinions attributed to Pythagoras on subsidiary points. But we may instance his celebrated theory of the music of the spheres as a good specimen of the deductive method employed by him. Assuming that everything in the great Arrangement (κόσμος), which he called the world, must be harmoniously arranged, and, assuming that the planets were at the same proportionate distances from one another as the divisions of the monochord, he concluded that in passing through the ether they must make a sound, and that this sound would vary according to the diversity of their magnitude, velocity, and relative distance. Saturn gave the deepest tone, as being the furthest from the earth; the Moon gave the shrillest, as being nearest to the earth.

It may be necessary just to state that the attempt to make Pythagoras a Monotheist is utterly without solid basis, and unworthy of detailed refutation.

His doctrine of the Transmigration of Souls has been regarded as symbolical; with very little reason, or rather with no reason at all. He defined the soul to be a Monad (unit) which was self-moved.* Of course the soul, inasmuch as it was a number, was One, *i.e.* perfect. But all perfection, in as far as it is moved, must pass into imperfection, whence it strives to regain its state of perfection. Imperfection he called a departure from unity; *two* therefore was accursed.

The soul in man is in a state of comparative imperfection.† It has three elements, Reason (νοῦς), Intelligence (φρήν), and Passion

* Aristot., *De Animâ*, i. 2.

† Thus Aristotle expresses himself when he says that the Pythagoreans

(*θυμός*) : the two last man has in common with brutes; the first is his distinguishing characteristic. It has hence been concluded that Pythagoras could not have maintained the doctrine of transmigration, his distinguishing man from brutes being a refutation of those who charge him with the doctrine.* The objection is plausible, and points out a contradiction; but there is abundant evidence for the belief that transmigration was taught.† The soul, being a self-moved monad, is One, whether it connect itself with two or with three; in other words the *essence* remains the same whatever its *manifestations*. The One soul may have two aspects, Intelligence and Passion, as in brutes; or it may have the three aspects, as in man. Each of these aspects may predominate, and the man will then become eminently rational, or able, or sensual. He will be a philosopher, a man of the world, or a beast. Hence the importance of the Pythagorean initiation, and of the studies of Mathematics and Music.

'This soul, which can look before and after, can shrink and shrivel itself into an incapacity of contemplating aught but the present moment, of what depths of degeneracy it is capable! What a beast it may become! And if something lower than itself, why not something higher? And if something higher and lower, may there not be a law accurately determining its elevation and descent? Each soul has its peculiar evil tastes, bringing it to the likeness of different creatures beneath itself; why may it not be under the necessity of abiding in the condition of that thing to which it had adapted and reduced itself?' ‡

In closing this account of a very imperfectly-known doctrine, we have only further to exhibit its relation to the preceding philosophy. It is clearly an offshoot of Anaximander's doctrine, which it developes in a more logical manner. In Anaximander there remained a trace of physical inquiry; in Pythagoras science is frankly mathematical. Assuming that Number is the real invariable essence of the world, it was a natural deduction that the world is regulated by numerical proportions; and from this all the rest of his system followed as a

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maintained the soul and intelligence to be a certain combination of numbers, *τὸ δὲ τοιονδὶ* (*sc. τῶν ἀριθμῶν πάθος*) *ψυχὴ καὶ νοῦς.—Metaph.*, i. 5.

* Pierre Leroux, *De l'Humanité*, i. 390–426.

† Plato distinctly mentions the transmigration into beasts.—*Phædrus*, p. 45. And the Pythagorean Timæus, in his statement of the doctrine, also expressly includes beasts.—*Timæus*, p. 45.

‡ Maurice, *Moral and Metaphysical Philosophy*.

consequence. Anaximander's system is but a rude and daring sketch of a doctrine which the great mathematical genius of Pythagoras developed. The Infinite of Anaximander became the One of Pythagoras. Observe that in neither of these systems is Mind an attribute of the Infinite. It has been frequently maintained that Pythagoras taught the doctrine of a 'soul of the world.' But there is no solid ground for the opinion, any more than for that of his Theism, which later writers anxiously attributed to him. The conception of an Infinite Mind is much later than Pythagoras. He only regarded Mind as a phenomenon; as the peculiar manifestation of an essential number: and the proof of this assertion we take to lie in his very doctrine of the soul. If the Monad, which is self-moved, can pass into the state of a brute or of a plant, in which state it successively loses its Reason (*νοῦς*) and its Intelligence (*φρήν*) to become merely sensual and concupiscible, does not this abdication of Reason and Intelligence distinctly prove them to be only variable manifestations (phenomena) of the invariable Essence? Assuredly; and those who argue for the Soul of the World as an Intelligence in the Pythagorean doctrine, must renounce both the doctrine of transmigration and the central doctrine of the system, the invariable Number as the Essence of things.

Pythagoras represents the second epoch of the second Branch of Ionian Philosophy; he is parallel with Anaximenes.

Translations from the 5th Chapter of Book I. of Aristotle's Metaphysics.

'In the age of these philosophers [the Eleats and Atomists], and even before them, lived those called Pythagoreans, who at first applied themselves to mathematics, a science they improved; and, having been trained exclusively in it, they fancied that the principles of mathematics were the principles of all things.

'Since numbers are by nature *prior* to all things, in Numbers they thought they perceived greater analogies with that which exists and that which is produced (*ὁμοιώματα πολλὰ τοῖς οὖσι καὶ γιγνομένοις*) than in fire, earth, or water. So that a certain combination of Numbers was justice; and a certain other combination of Numbers was Reason and Intelligence; and a certain other combination of Numbers was opportunity (*καιρός*); and so of the rest.

'Moreover they saw in Numbers the combinations of harmony. Since therefore all things seemed formed similarly to Numbers, and Numbers being by nature anterior to things, they concluded that the elements (*στοιχεῖα*) of Numbers are the elements of things, and that the whole heaven is a harmony and a Number. Having indicated the great analogies between Numbers and the phenomena of heaven and its parts, and with the phenomena of the whole world (*τὴν ὅλην διακόσμησιν*) they formed a system; and if any gap was apparent in the system, they used every effort to restore the connection. Thus, since Ten appeared to them a perfect number, potentially containing all numbers, they declared that the moving celestial bodies (*τὰ φερόμενα κατὰ τὸν οὐρανόν*) were ten in number; but because only nine are visible they imagined (*ποιοῦσι*) a tenth, the *Antichthone*.

'We have treated of all these things more in detail elsewhere. But the reason why we recur to them is this—that we may learn from *these* philosophers also what they lay down as their first principles, and by what process they hit upon the causes aforesaid.

'They maintained that Number was the Beginning (Principle, *ἀρχή*) of things, the cause of their material existence, and of their modifications and different states. The elements (*στοιχεῖα*) of Number are Odd and Even. The Odd is finite, the Even infinite. Unity, the One, partakes of both these, and is both Odd and Even. All number is derived from the One. The heavens, as we said before, are composed of numbers. Other Pythagoreans say there are ten Principia, those called co-ordinates:—

The finite and the infinite.
The odd and the even.
The one and the many.
The right and the left.
The male and the female.
The quiescent and the moving.
The right line and the curve.
Light and darkness.
Good and evil.
The square and the oblong.

'. . . All the Pythagoreans considered the elements as material; for the elements are in all things, and constitute the world. . . .

'. . . The finite, the infinite, and the One they maintained to be not separate existences, such as are fire, water, etc.; but the abstract Infinite and the abstract One are respectively the substance

of the things of which they are predicated, and hence, too, Number is the substance of all things (*αὐτὸ τὸ ἄπειρον, καὶ αὐτὸ τὸ ἕν, οὐσίαν εἶναι τούτον*). They began by attending only to the *Form*, and began to define it; but on this subject they were very imperfect. They define superficially; and that which suited their definition they declared to be the essence (*causa materialis*) of the thing defined; as if one should maintain that the double and the number two are the same thing, because the double is first found in the two. But two and the double are not equal (in essence), or if so, then the one would be many; a consequence which follows from their (the Pythagorean) doctrine.'

(*We add also a passage from the 7th Chapter of the same Book.*)

'The Pythagoreans employ the Principia and Elements more strangely than even the Physiologists; the cause of which is that they do not take them from sensible things (*αὐτὰς οὐκ ἐξ αἰσθητῶν*). However all their researches are physical; all their systems are physical. They explain the production of heaven, and observe that which takes place in its various parts, and its revolutions; and thus they employ their Principles and Causes, as if they agreed with the Physiologists, that whatever *is* is *material* (*αἰσθητόν*), and is that which contains what we call heaven.

'But their Causes and Principles we should pronounce sufficient (*ἱκανάς*) to raise them up to the conception of Intelligible things,—of things above sense (*ἐπαναβῆναι καὶ ἐπὶ τὰ ἀνωτέρω τῶν ὄντων*); and would accord with such a conception much better than with that of physical things.'

This criticism of Aristotle's is a perfect refutation of those who see in Pythagoras the traces of symbolical doctrine. Aristotle sees how much more rational the doctrine would have been had it been symbolical; but this very remark proves that it was not so.

CHAPTER III.

THE ELEATICS.

§ I. Xenophanes.

THE contradictory statements which so long obscured the question of the date of Xenophanes' birth, may now be said to be satisfactorily cleared up. M. Victor Cousin's essay on the subject will leave few readers unconvinced.* We may assert therefore with some probability, that Xenophanes was born in the 40th Olympiad (B. C. 620–616), and that he lived nearly a hundred years. His birth-place was Colophon, an Ionian city of Asia Minor; a city long famous as the seat of elegiac and gnomic poetry, and ranking the poet Mimnermus among its celebrated men. Xenophanes cultivated this species of poetry from youth upwards; it was the joy of his youth, the consolation of his manhood, and support of his old-age. Banished from his native city, he wandered over Sicily as a Rhapsodist;† a profession he exercised apparently till his death, though, if we are to credit Plutarch, with very little pecuniary benefit. He lived poor, and died poor. But he could dispense with riches, having within him treasures inexhaustible. He whose whole soul was enwrapt in the contemplation of grand ideas, and whose vocation was the poetical expression of those ideas, needed but little worldly grandeur. He seems to have been one of the most remarkable men of antiquity, and also one of the most fanatical. He had no pity for the idle and luxurious superstitions of his time; he had no tolerance for the sunny legends of Homer, defaced as they were by the errors of polytheism. He, a poet, was fierce in the combat he perpetually waged with the first of poets: not from petty envy; not from petty ignorance; but from the deep sincerity of his heart, from the holy enthusiasm of his reverence.

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* *Nouveaux Fragmens Philosophiques.*—The critical reader will observe some mis-statements in this essay, but on the whole it is well worthy of perusal. Karsten's *Xenophanis Carminum Reliquiæ* is of great value.

† The Rhapsodists were the Minstrels of antiquity. They learned poems by heart, and recited them to assembled crowds on the occasions of feasts. Homer was a rhapsodist, and rhapsodized his own verses.

He who believed in one God, supreme in power, goodness, and intelligence, could not witness without pain the degradation of the Divine in the common religion. He was not dead to the poetic beauty of the Homeric fables, but keenly alive to their religious falsehood. Plato, whom none will accuse of wanting poetical taste, made the same objection. The latter portion of the second and the beginning of the third books of Plato's *Republic* are but expansions of these verses of Xenophanes' :—

'Such things of the Gods are related by Homer and Hesiod
As would be shame and abiding disgrace to any of mankind;
Promises broken, and thefts, and the one deceiving the other.'

He who firmly believed in

'One God, of all beings divine and human the greatest,
Neither in body alike unto mortals, neither in spirit,'*

could not but see, 'more in sorrow than in anger,' the gross anthropomorphism of his fellows :—

'But men foolishly think that Gods are born like as men are,
And have too a dress like their own, and their voice and their figure:
But if oxen and lions had hands like ours, and fingers,
Then would horses like unto horses, and oxen to oxen,
Paint and fashion their god-forms, and give to them bodies
Of like shape to their own, as they themselves too are fashioned.'†

In confirmation of which satire he referred to the Ethiopians, who represent their gods with flat noses and black complexion; while the Thracians give them blue eyes and ruddy complexions.

Having attained a clear recognition of the unity and perfection of the Godhead, it became the object of his life to spread that conviction abroad, and to tear down the thick veil of superstition which hid the august countenance of truth. He looked around him, and

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* This is too important a position to admit of our passing over the original :—

Εἷς θεὸς ἔν τε θεοῖσι καὶ ἀνθρώποισι μέγιστος
Οὔτε δέμας θνητοῖσιν ὁμοίϊος οὔτε νόημα.—*Fragm.* i., ed. *Karsten.*

Wiggers, in his *Life of Socrates*, expresses his surprise that Xenophanes was allowed to speak so freely respecting the State Religion in Magna Græcia, when philosophical opinions much less connected with religion had proved so fatal to Anaxagoras in Athens. But the apparent contradiction is perhaps reconciled when we remember that Xenophanes was a poet, and poets have in all ages been somewhat privileged persons.

† Fragments v. and vi. are here united, as in Ritter; the sense seems to demand this conjunction. But Clemens Alexandrinus quotes the second Fragment as if it occurred in another part of the poem; introducing it with καὶ πάλιν φησι, 'and again he says.'—*Karsten*, p. 41.

saw mankind divided into two classes: those who speculated on the nature of things, endeavouring to raise themselves up to a recognition of the Divine; and those who yielded an easy unreflecting assent to the superstitions which composed religion. The first class speculated; but they kept their speculations to themselves, and to a small circle of disciples. If they sought truth, it was not to communicate it to all minds; they did not work for humanity, but for the few. Even Pythagoras, earnest thinker as he was, could not be made to believe in the fitness of the multitude for truth. He had two sorts of doctrine to teach: one for a few disciples, whom he chose with extreme caution; the other for those who pleased to listen. The former doctrine was what he believed the truth; the latter was what he thought the masses were fitted to receive. Xenophanes recognized no such distinction. Truth was for all men; to all men he endeavoured to present it; and for three-quarters of a century he, the great Rhapsodist of Truth, emulated his countryman Homer, the great Rhapsodist of Beauty, and wandered into many lands, uttering the thought which was working in him. What a contrast is presented by these two Ionian singers! contrast in purpose, in means, and in fate. The rhapsodies of the philosopher, once so eagerly listened to and affectionately preserved in traditionary fragments, are now only extant in briefest extracts contained in ancient books, so ancient and so uninteresting as to be visited only by some rare old scholars and a few *dilettanti* spiders; while the rhapsodies of the blind singer are living in the brain and heart of thousands and thousands, who go back to them as the fountain-source of poetry, the crystal mirror of an antique world.

The world presented itself to Homer in pictures, to Xenophanes in problems. The one saw Nature, enjoyed it, and painted it. The other also saw Nature, but questioned it, and wrestled with it. Every trait in Homer is sunny clear; in Xenophanes there is indecision, confusion. In Homer there is a resonance of gladness, a sense of manifold life, activity, and enjoyment. In Xenophanes there is bitterness, activity of a spasmodic sort, infinite doubt, and infinite sadness. The one was a poet singing as the bird sings, carolling for very exuberance of life; the other was a Thinker, and a fanatic. He did not sing, he recited:

'Ah! how unlike
To that large utterance of the early Gods!'

That the earnest philosopher should have opposed the sunny poet, opposed him even with bitterness, on account of the degraded actions

and motives which he attributed to the Gods, is natural; but we must distinguish between this opposition and satire. Xenophanes was bitter, not satirical. The statement derived from Diogenes, that he wrote satires against Homer and Hesiod, is erroneous.* Those who think otherwise are referred to the excellent essay of Victor Cousin, before mentioned, or to Ritter.

Rhapsodizing philosophy, and availing himself, for that purpose, of all that philosophers had discovered, he wandered from place to place, and at last came to Elea, where he settled. Hegel questions this: he says he finds no distinct mention of such a fact in any of the ancient writers; on the contrary, Strabo, in his sixth book, when describing Elea, speaks of Parmenides and Zeno as having lived there, but is silent respecting Xenophanes, which Hegel holds to be suspicious. Indeed the words of Diogenes Laertius are vague. He says, 'Xenophanes wrote two thousand verses on the foundation of Colophon, and on a colony sent to Elea.' This by no means implies that he lived there. Nevertheless we concur with the modern writers who, from the various connections with the Eleatics observable in his fragments, maintain that he must actually have resided there. The reader is again referred to M. Cousin on this point. Be that as it may, Xenophanes terminated a long and active life without having solved the great problem. The indecision of his acute mind sowed the seeds of that scepticism which was hereafter to play so large a part in philosophy. All his knowledge enabled him only to know how little he knew. His state of mind is finely described by Timon the sillograph, who puts into the mouth of Xenophanes these words:—

'Oh that mine were the deep mind, prudent and looking to both sides!
Long, alas! have I strayed on the road of error, beguiled,
And am, now, hoary of years, yet exposed to doubt and distraction
Manifold, all-perplexing, for whithersoever I turn me
I am lost in the *One and All*.'—(εἰς ἓν ταὐτό τε πᾶν ἀνελύετο.)†

It now remains for us to state some of the conclusions at which this great man arrived. They will not, perhaps, answer to the

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* Γέγραφε δὲ καὶ ἐν ἔπεσιν, καὶ ἐλεγείας, καὶ ἰάμβους κατὰ Ἡσιόδου καὶ Ὁμήρου. Here, says M. Cousin, the word ἰάμβους is either an interpolation of a copyist, as Feurlin and Rossi conjecture, or else it is a mis-statement by Diogenes. There is not a single iambic verse of his remaining. But in his hexameters he opposes Homer and Hesiod, as we have seen.

† Preserved by Sextus Empiricus, *Hypot. Pyrrhon.* i. 224; and quoted also by Ritter, i. 443.

Reader's expectation; as with Pythagoras, the reputation for extraordinary wisdom seems ill justified by the fragments of that wisdom which have descended to us. But although to modern philosophy the conclusions of these early thinkers may appear trivial, let us never forget that it is to these early thinkers that we owe our modern philosophy. Had there not been many a

> 'Grey spirit yearning in desire
> To follow knowledge, like a sinking star,
> Beyond the utmost bound of human thought,'*

we should not have been able to travel on the secure terrestrial path of slow inductive science. The impossible has to be proved impossible, before men will consent to limit their endeavours to the compassing of the possible. And it was the cry of despair which escaped from Xenophanes, the cry that nothing can be certainly known, which first called men's attention to the nothingness of knowledge, *as knowledge was then conceived.* Xenophanes opens a series of thinkers, which attained its climax in Pyrrho. That he should thus have been at the head of the monotheists, and at the head of the sceptics, is sufficient to entitle his speculations to an extended consideration here.

§ II. The Philosophy of Xenophanes.

The great problem of existence had early presented itself to his mind; and the resolution of that problem by Thales and Pythagoras had left him unsatisfied. Neither the physical nor the mathematical explanation could still the doubts which rose within him. On all sides he was oppressed with mysteries, which these doctrines could not penetrate. The state of his mind is graphically painted in that one phrase of Aristotle's: 'Casting his eyes upwards at the immensity of heaven, he declared that *The One* is God.' Overarching him was the deep blue, infinite vault, immovable, unchangeable, embracing him and all things; *that* he proclaimed to be God. As Thales had gazed abroad upon the sea, and felt that he was resting on its infinite bosom, so Xenophanes gazed above him at the sky, and felt that he was encompassed by it. Moreover it was a great mystery, inviting yet defying scrutiny. The sun and moon whirled to and fro through it; the stars were

> 'Pinnacled dim in its intense inane.'

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* Tennyson.

The earth was constantly aspiring to it in the shape of vapour, the souls of men were perpetually aspiring to it with vague yearnings. It was the centre of all existence; it was Existence itself. It was The One,—the Immovable, on whose bosom the Many were moved.

Is not this the explanation of that opinion universally attributed to him, but always variously interpreted, 'God is a sphere'? The Heaven encompassing him and all things, was it not The One Sphere which he proclaimed to be God?

It is very true that this explanation does not exactly accord with his physics, especially with that part which relates to the earth being a flat surface whose inferior regions are infinite, by which he explained the fixity of the earth. M. Cousin, in consequence of this discrepancy, would interpret the phrase as metaphorical. 'The epithet *spherical* is simply a Greek locution to indicate the perfect equality and absolute unity of God, and of which a sphere may be an image. The σφαιρικός of the Greeks is the *rotundus* of the Latins. It is a metaphorical expression such as that of *square*, meaning *perfect*; an expression which, though now become trivial, had at the birth of mathematical science something noble and elevated in it, and is found in most elevated compositions of poetry. Simonides speaks of a "man square as to his feet, his hands, and his mind," meaning an accomplished man; and the metaphor is also used by Aristotle. It is not therefore surprising that Xenophanes, a poet as well as a philosopher, writing in verse, and incapable of finding the metaphysical expression which answered to his ideas, should have borrowed from the language of imagination the expression which would best render his idea.'

We should be tempted to adopt this explanation could we be satisfied that the Physics of Xenophanes were precisely what it is said they were, or that they were such at the epoch in which he maintained the sphericity of God. This latter difficulty is insuperable, but has been unobserved by all critics. A man who lives a hundred years necessarily changes his opinions on such subjects; and when opinions are so lightly grounded as were those of philosophers at that epoch, it is but natural to admit that the changes may have been frequent and abrupt. In this special instance, scholars have been aware of the very great and irreconcilable contradictions existing between certain opinions equally authentic; showing him to have been decidedly Physical (Ionian) in one department, and as decidedly Mathematical (Pythagorean) in another.

As to the case in point, Aristotle's express statement of Xeno-

phanes having 'looked up at heaven, and pronounced The One to be God,' is manifestly at variance with any belief in the infinity of the lower regions of the earth. The One must be the Infinite.

To return, however, to his Monotheism, or more properly Pantheism, which is the greatest peculiarity of his doctrine: he not only destroyed the notion of a multiplicity of Gods, but he proclaimed the Self-existence and Intelligence of The One.

God must be Self-existent; for to conceive Being as incipient is impossible. Nothing can be produced from Nothing. Whence, therefore, was Being produced? From itself? No; for then it must have been already in existence to produce itself, otherwise it would have been produced from nothing. Hence the primary law: Being is self-existent. If self-existent, consequently eternal.

As in this it is implied that God is all-powerful and all-wise and all-existent, a multiplicity of Gods is inconceivable.

It also follows that God is immovable, when considered as The All:—

> 'Wholly unmoved and unmoving it ever remains in the same place,
> Without change in its place when at times it changes appearance.'

The All must be unmoved; there is nothing to move it. It cannot move itself; for to do so it must be external to itself.

We must not suppose that he denied motion to finite things because he denied it to the Infinite. He only maintained that The All was unmoved. Finite things were moved by God: 'without labour he ruleth all things by reason and insight.' His monotheism was carefully distinguished from anthropomorphism, as the verses previously quoted have already exemplified. Let us only further remark on the passage in Diogenes Laertius, wherein he is said to have maintained that 'God did not resemble man, for he heard and saw all things without *respiration*.' This is manifestly an allusion to the doctrine of Anaximenes that the soul was *air*. The intelligence of God, being utterly unlike that of man, is said to be independent of respiration.*

It is necessary to caution the reader against the supposition that by the One God Xenophanes meant a Personal God, distinct from the universe. He was a monotheist in contradistinction to his polytheistical contemporaries; but his monotheism was pantheism.

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* Only by thus connecting one doctrine with another can we hope to understand ancient philosophy. It is in vain that we puzzle ourselves with the attempt to penetrate the meaning of these antique fragments of thought unless we view them in relation to the opinions of their epoch.

Indeed this point would never have been doubted, notwithstanding the ambiguity of language, if moderns had steadily kept before their minds the conceptions held by the Greeks of their Gods as personifications of the Powers of Nature. When Xenophanes argued against the polytheism of his contemporaries, he argued against their *personifying* as distinct deities the various aspects of The One; he was wroth with their degradation of the divine nature by assimilating it to human nature, by making these powers *persons*, and independent existences,—conceptions irreconcilable with that of the unity of God. He was a monotheist therefore, but his monotheism was pantheism; he could not separate God from the world, which was merely the manifestation of God; He could not conceive God as the One Existent, and admit the existence of a world *not* God. There could be but One Existence with many modes; that one was God.

There is another tenet of almost equal importance in his system, and one which marks the origin of that sceptical philosophy which we shall see henceforward running through all the evolutions of this history, always determining a crisis in speculation. Up to the time of Xenophanes philosophy was unsuspectingly dogmatical: it never afterwards recovered that simple position. He it was who began to doubt, and to confess the incompetence of Reason to solve doubts and compass the exalted aims of philosophy. Yet the doubt was moral rather than psychological. It was no systematic scepticism: an earnest spirit struggling after Truth, whenever he obtained, or thought he obtained, a glimpse of her celestial countenance he proclaimed his discovery, however it might contradict what he had before announced. Long travel, various experience, examination of different systems, new and contradictory glimpses of the problem he was desirous of solving,—these working together produced in his mind a scepticism of a noble, somewhat touching sort, wholly unlike that of his successors. It was the combat of contradictory opinions in his mind, rather than disdain of knowledge. His faith was steady, his opinions vacillating. He had a profound conviction of the existence of an eternal, all-wise, infinite Being; but this belief he was unable to reduce to a consistent formula. There is deep sadness in these verses:—

> 'Surely never hath been, nor ever shall be a mortal
> Knowing both well the Gods and the All, whose nature we treat of;
> For when by chance he at times may utter the true and the perfect,
> He wists not unconscious; *for error is spread over all things.*'

In vain M. Cousin attempts to prove that these verses are not sceptical; many of the recorded opinions of Xenophanes are of the same tendency. The man who had lived to find his most cherished convictions turn out errors, might well be sceptical of the truth of any of his opinions. But this scepticism was vague; it did not prevent his proclaiming what he held to be the truth; it did not prevent his search after truth.

For although Truth could never be compassed in its totality by man, glimpses could be caught. *Ἀλλὰ χρόνῳ ζητοῦντες ἐφευρίσκουσιν ἄμεινον*: we cannot indeed be certain that our knowledge is absolute; we can only strive our utmost, and believe our opinions to be probable. This is not scientific scepticism; it does not ground itself on an investigation of the nature of Intelligence and the sources of our knowledge: it grounds itself solely on the perplexities into which philosophy is thrown. Thus reason (*i. e.* the logic of his day) taught him that God the Infinite could not be infinite, neither could he be finite. Not infinite, because *non-being* alone, as having neither beginning, middle, nor end, is unlimited (infinite). Not finite, because one thing can only be limited by another, and God is one, not many.

In like manner did logic teach him that God was neither moved nor unmoved. Not moved, because one thing can only be moved by another, and God is one, not many; not unmoved, because *non-being* alone is unmoved, inasmuch as it neither goes to another, nor does another come to it.

With such verbal quibbles as these did this great thinker darken his conception of the Deity. They were not quibbles to him; they were the real conclusions involved in the premises from which he reasoned. To have doubted their validity would have been to doubt the possibility of philosophy. He was not quite prepared for that; and Aristotle in consequence calls him 'somewhat clownish,' *ἀγροικότερος* (*Met.* i. 5); meaning that his conceptions were rude and undigested, instead of being systematized.

Although in the indecision of Xenophanes we see the germs of later scepticism, we are disposed to agree with M. Cousin in discrediting his absolute scepticism—resting on the incomprehensibility of all things—*ἀκαταληψία πάντων*. Nevertheless some of M. Cousin's grounds appear to us questionable.*

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* *E. g.* He says: 'It appears that Sotion, according to Diogenes, attributed to Xenophanes the opinion, all things are incomprehensible; but Dio-

The Reader will, perhaps, have gathered from the foregoing, that Xenophanes was too much in earnest to believe in the incomprehensibility of all things, however the contradictions of his logic might cause him to suspect his and other people's conclusions. Of course, if carried out to their legitimate consequences, his principles lead to absolute scepticism; but he did not so carry them out, and we have no right to charge him with consequences which he himself did not draw. Indeed, it is one of the greatest and commonest of critical errors, to charge the originator or supporter of a doctrine with consequences which he did not see, or would not have accepted had he seen them. Because they may be contained in his principles, it by no means follows that he saw them. A man would be ridiculed if he attributed to the discoverer of any law of nature the various discoveries which the *application* of that law might have produced; nevertheless these applications were all potentially existing in the law; but as the discoverer of the law was not aware of them, he does not get the credit. Why, then, should a man have the *dis*-credit of consequences contained, indeed, in his principles, but which he himself could not see? On the whole, although Xenophanes was not a clear and systematic thinker, it cannot be denied that he exercised a very remarkable influence on the progress of speculation; as we shall see in his successors.

§ III. Parmenides.

The readers of Plato will not forget the remarkable dialogue in which he pays a tribute to the dialectical subtlety of Parmenides; but we must at the outset caution them against any belief in the genuineness of the opinions attributed to him by Plato. If Plato could reconcile to himself the propriety of altering the sentiments of his beloved master, Socrates, and of attributing to him such as he had never entertained; with far greater reason could he put into the mouth of one long dead, sentiments which were the invention of his own dramatic genius. Let us read the *Parmenides*, therefore, with extreme caution; let us prefer the authority of Aristotle and the verses of Parmenides which have been preserved.

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genes adds that Sotion was wrong on that point.' (*Fragmens*, p. 89.) Now this is altogether a mis-statement. Diogenes says: 'Sotion pretends that *no one before Xenophanes* maintained the incomprehensibility of all things; but he is wrong.' Diogenes here does not deny that Xenophanes held the opinion, but that any one held it before him.

Parmenides was born at Elea, somewhere about the 61st Olympiad (B.C. 536). This date does not contradict the rumour which, according to Aristotle, asserted him to have been a disciple of Xenophanes, whom he might have listened to when that great rhapsodist was far advanced in years. The most positive statement, however, is that by Sotion, of his having been taught by Ameinias and Diochœtes the Pythagorean. But both may be true.

Born to wealth and splendour, enjoying the esteem and envy which always follow splendour and talents, it is conjectured that his early career was that of a dissipated voluptuary; but Diochœtes taught him the nothingness of wealth (at times, perhaps, when satiety had taught him the nothingness of enjoyment), and led him from the dull monotony of noisy revelry to the endless variety and excitement of philosophic thought. He forsook the feverish pursuit of enjoyment, to contemplate 'the bright countenance of Truth, in the quiet and still air of delightful studies.'* But this devotion to study was no egoistical seclusion. It did not prevent his taking an active share in the political affairs of his native city. On the contrary, the fruits of his study were shown in a code of laws which he drew up, and which were deemed so wise and salutary, that the citizens at first yearly renewed their oath to abide by the laws of Parmenides.

'And something greater did his worth obtain,
For fearless virtue bringeth boundless gain.'

The first characteristic of his philosophy, is the decided distinction between Truth and Opinion: in other words, between the ideas obtained through the Reason and those obtained through Sense. In Xenophanes we noticed a vague glimmering of this notion; in Parmenides it attained to something like clearness. In Xenophanes it contrived to throw an uncertainty over all things; which, in a logical thinker, would have become absolute scepticism. But he was saved from scepticism by his faith. Parmenides was saved from it by his philosophy. He was perfectly aware of the deceitful nature of opinion; but he was also aware that within him there were certain ineradicable convictions, in which, like Xenophanes, he had perfect faith, but which he wished to explain by reason. Thus was he led in some sort to anticipate the celebrated doctrine of *innate ideas*. These ideas were concerning necessary truths; they were true knowledge: all other ideas were uncertain.

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* Milton.

The Eleatics, as Ritter remarks, believed that they recognized and could demonstrate that the truth of all things is one and unchangeable; perceiving, however, that the human faculty of thought is constrained to follow the appearance of things, and to apprehend the changeable and the many, that were forced to confess that we are unable fully to comprehend the divine truth in its reality, although we may rightly apprehend a few general principles. Nevertheless, to suppose, in conformity with human thought, that there is actually both a plurality and a change, would be but a delusion of the senses. While, on the other hand, we must acknowledge, that in all that appears to us as manifold and changeable, including all particular thought as evolved in the mind, the Godlike is present, unperceived indeed by human blindness, and become, as it were beneath a veil, indistinguishable.

We may make this conception more intelligible if we recall the mathematical tendency of the whole of this school. Their knowledge of Physics was regarded as contingent—delusive. Their knowledge of Mathematics eternal—self-evident. Parmenides was thus led by Xenophanes on the one hand, and Diochœtes on the other, to the conviction of the duality of human thought. His Reason, *i. e.* the Pythagorean logic, taught him that there is naught existing but The One (which he did not, with Xenophanes, call God; he called it Being). His Sense, on the other hand, taught him, that there were Many Things, because of his manifold sensuous impressions. Hence he maintained two Causes and two Principles: the one to satisfy the Reason; the other to accord with the explanations of Sense. His work on 'Nature' was therefore divided into two parts: in the first is expounded the absolute Truth, as Reason proclaims it; in the second, human Opinion, accustomed to

'Follow the rash eye, and ears with singing sounds confused, and tongue,'

which is but a mere *seeming* (δόξα, appearance); nevertheless there is a cause of this seeming; there is also a principle, consequently there is a doctrine appropriate to it.

It must not be imagined, that Parmenides had a mere vague and general notion of the uncertainty of human knowledge. He maintained that thought was delusive because dependent upon organization. He had as distinct a conception of this celebrated theory as any of his successors, as may be seen in the passage preserved by Aristotle in the 5th chapter of the 4th book of his *Metaphysics*, where, speaking of the materialism of Democritus, in whose system

sensation was thought, he adds, that others have shared this opinion, and proceeds thus: 'Empedocles affirms, that a change in our condition (*τὴν ἕξιν*) causes a change in our thought:

> ''Thought grows in men according to the impression of the moment;'*

and, in another passage, he says:—

> ''It is always according to the changes which take place in men
> That there is change in their thoughts.''

Parmenides expresses himself in the same style:

> 'Such as to each man is the nature of his many-jointed limbs,
> Such also is the intelligence of each man; for it is
> The nature of limbs (organization) which thinketh in men,
> Both in one and in all; for the highest degree of organization
> gives the highest degree of thought.†

Now, as thought was dependent on organization, and as each organization differed in degree from every other, so would the opinions of men differ. If thought be sensation, it requires but little reflection to show, that, as sensations from the same object differ according to the senses of different persons, and indeed differ at different times with the same person, therefore one opinion is not more true than another, and all are equally false. But Reason is the same in all men: that alone is the fountain of certain knowledge. All thought derived from sense is but a *seeming* (*δόξα*); but thought derived from Reason is absolutely true. Hence his antithesis to *δόξα* is always *πίστις, faith.*

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* *Πρὸς παρεὸν γὰρ μῆτις ἀέξεται ἀνθρώποισι.*

† The last sentence, 'for the highest degree of organization gives the highest degree of thought,' is a translation which, differing from that of every other we have seen, and being, as we believe, of some importance in the interpretation of Parmenides' system, it is necessary to state at full our reasons. Here is the original of the verses in the text:—

Ὡς γὰρ ἕκαστος ἔχει κρᾶσιν μελέων πολυκάμπτων,
Τῶς νόος ἀνθρώποισι παρέστηκεν. Τὸ γὰρ αὐτὸ
Ἔστιν ὅπερ φρονέει μελέων φύσις ἀνθρώποισι,
Καὶ πᾶσιν, καὶ παντί· τὸ γὰρ πλέον ἐστὶ νόημα.

The last sentence Ritter translates—

'For thought is the fulness.'

Objecting to Hegel's version of *τὸ πλέον*, 'the most,' and to that of Brandis, 'the mightier,' Ritter says the meaning is 'the full.' But we shall then want an interpretation of 'the full.' What is it? He elsewhere slightly alters the phrase thus:—

'The fulness of all being is thought.'

We speak with submission, but it appears to us that Ritter's assertion re-

This is the central point in his system. He was thereby enabled to avert absolute scepticism, and at the same time to admit the uncertainty of ordinary knowledge. He had therefore two distinct doctrines, each proportioned to the faculty adapted to it. One doctrine, of Absolute Knowledge (Metaphysics, *μετὰ τὰ φυσικά*), with which the faculty of pure Reason was concerned, a doctrine called in the language of that day, the 'science of Being.' The other doctrine, of Relative Knowledge, or Opinion (Physics, *τὰ φυσικά*), with which the faculty of Intelligence, or Thought, derived from Sense, was concerned, and which may be called the science of Appearance.

On the science of Being, Parmenides did not differ much from his predecessors, Xenophanes and Pythagoras. He taught that there was but one Being; non-Being was impossible. The latter assertion amounts to saying that non-existence cannot exist: a position which may appear extremely trivial to the reader not versed in metaphysical speculations; but which we would not have him despise, inasmuch as it is a valuable piece of evidence respecting the march

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specting *τὸ πλέον* meaning 'the full,' or 'the fulness,' is unwarrantable. The ordinary meaning is certainly 'the more,' or 'the most,' and hence used occasionally to signify *perfection*, as in Theocritus :—

Καὶ *τᾶς βωκολικᾶς ἐπὶ τὸ πλέον ἵκεο μώσας.*—*Idy.* i. 20.

When Parmenides, therefore, uses the phrase *τὸ πλέον ἐστὶ νόημα*, he seems to us to have the ordinary meaning in view; he speaks of *τὸ πλέον* as a necessary consequence of the *πολυκάμπτος*. Man has many-jointed limbs, *ergo* many sensations; if he had more limbs he would have more sensations; the highest degree of organization gives the highest degree of thought. This explanation is in conformity with what Aristotle says on introducing the passage; is in conformity with the line immediately preceding :—

Ἔστιν ὅπερ φρονέει μελέων φύσις ἀνθρώποισι;

is in conformity with the explanation of the scholiast Asclepias, *τὸ πλέον ἐστὶ νόημα, προσγίγνεται ἐκ τῆς πλέονος αἰσθήσεως καὶ ἀκριβεστέρας*; and, finally, is in conformity with the opinion attributed to Parmenides by Plutarch, that 'sentir et penser ne lui paraissaient choses distinctes, ni entre elles ni de l'organisation.'[1]

It is on this account we reject the reading of *πολυπλάγκτων*, 'far-wandering,' in place of *πολυκάμπτων*, 'many-jointed,' suggested by Karsten. The change is arbitrary and for the worse; *πολυπλάγκτων* having reference only to the feet, whereas the simile in Parmenides is meant to apply to the whole man.

The meaning of the verses is, therefore, that the intelligence of man is formed according to his many-jointed frame, *i. e.* dependent on his organization.

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[1] Ch. Renouvier, *Manuel de la Philosophie Ancienne*, i. 152, who cites Plutarch, *Opin. des Philos.* iv. 5.

of human opinion. It is only one of the many illustrations of the tendency to attribute positive qualities to words, as if they were *things*, and not simply *marks* of things: a tendency admirably exposed by James Mill, and subsequently by his son.* It was this tendency which so greatly puzzled the early thinkers, who, when they said that 'a thing *is* not,' believed that they nevertheless predicated existence, viz. the existence of non-existence. A thing *is;* and a thing *is not;* these two assertions seemed to be affirmations of two different states of existence; an error from which, under some shape or other, later thinkers have not always been free.

Parmenides, however, though affirming that Being alone existed, and that non-Being was impossible, did not see the real ground of the sophism. He argued that Non-Being could not be, because Nothing can come out of Nothing (as Xenophanes taught him); if therefore Being existed, it must embrace all existence.

Hence he concluded that The One was all Existence, identical, unique, neither born nor dying, neither moving nor changing. It was a bold step to postulate the finity of The One, Xenophanes having declared it to be necessarily infinite. But there is abundant evidence to prove that Parmenides regarded The One as finite. Aristotle speaks of it as the distinction between Parmenides and Melissus: 'The unity of Parmenides was a *rational* unity (τοῦ κατὰ λόγον ἑνός); that of Melissus was a *material* unity (τοῦ κατὰ τὴν ὕλην). Hence the former said that The One was finite (πεπερασμένον), but the latter said it was infinite (ἄπειρον).' From which it appears that the ancients conceived the Rational unity as limited by itself; a conception it is difficult for us to understand. Probably it was because they held The One to be spherical: all the parts being equal: having neither beginning, middle, nor end: and yet self-limited.

The conception of the identity of thought and existence is expressed in some remarkable verses by Parmenides, of which, as a very different interpretation has been drawn from them, we shall give a literal translation.

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* 'Many volumes might be filled with the frivolous speculations concerning the nature of Being (τὸ ὄν, οὐσία, *Ens*, *Entitas*, *Essentia*, and the like), which have arisen from overlooking this double meaning of the words *to be;* from supposing that when it signifies *to exist*, and when it signifies to *be* some specified thing, as to *be* a man, to *be* Socrates, to *be* seen, to *be* a phantom, or even to *be* a nonentity, it must still at the bottom answer to the same idea; and that a meaning must be found for it which shall suit all these cases.'—*John Mill, System of Logic*, i. 4, *first ed.*

'Thought is the same thing as the cause of thought:
For without the thing in which it is announced
You cannot find the thought; for there is nothing, nor shall be—
Except the existing.'

Now, as the only Existence was The One, it follows that The One and Thought are identical; a conclusion which by no means contradicts the opinion before noticed of the identity of human thought and sensation, both of these being merely transitory modes of Existence.

Respecting the second or physical doctrine of Parmenides, we may briefly say that, believing it necessary to give a science of Appearances, he sketched out a programme according to the principles reigning in his day. He denied motion in the abstract, but admitted that *according to appearance* there was motion.

Parmenides represents the logical and more rigorous side of the doctrine of Xenophanes, from which the physical element is almost banished, by being condemned to the region of uncertain Sense, Knowledge. The ideal element alone was really nourished by the speculations of Parmenides. Although he preserved himself from scepticism, as we saw, nevertheless the tendency of his doctrine was to forward scepticism. In his exposition of the uncertainty of knowledge, he retained a saving clause,—that, namely, of the certainty of Reason. It only remained for successors to apply the same scepticism to the ideas of Reason, and Pyrrhonism was complete.

§ IV. Zeno of Elea.

Zeno, by Plato called the Palamedes of Elea, must not be confounded with Zeno the Stoic. He was on all accounts one of the most distinguished of the ancient philosophers; as great in his actions as in his works; and remarkable in each for a strong, impetuous, disinterested spirit. Born at Elea about the 70th Olympiad (B. C. 500), he became the pupil of Parmenides, and, as some say, his adopted son.

The first period of his life was spent in the calm solitudes of study. From his beloved friend and master he had learned to appreciate the superiority of intellectual pleasures—the only pleasures that do not satiate. From him also he had learned to despise the splendours of rank and fortune, without becoming misanthropical or egoistical. He worked for the benefit of his fellow-men,

but declined the recompense of rank, or worldly honours, with which they would have repaid those labours. His recompense was the voice of his own heart, beating calmly in the consciousness of its integrity. The absence of ambition in so intrepid and exalted a mind, might well have been the wonderment of antiquity; for it was no sceptical indifference, no disdain for the opinions of his fellow-men, which made him shun office. He was a delicate no less than an impetuous man, extremely sensitive to praise and blame; as may be seen in his admirable reply to one who asked him why he was so hurt by blame: 'If the blame of my fellow-citizens did not cause me pain, their approbation would not cause me pleasure.' In timid minds, shrinking from the coarse ridicule of fools and knaves, this sensitiveness is fatal; but in those brave spirits who fear nothing but their own consciences, and who accept no approbation but such as their consciences can ratify, this sensitiveness lies at the root of much heroism and noble endeavour. One of those men was Zeno. His life was a battle, but the battle was for Truth; it ended tragically, but it was not fought in vain.

Perhaps of all his moral qualities his patriotism has been the most renowned. He lived at the period of Liberty's awakening, when Greece was everywhere enfranchising herself, everywhere loosening the Persian yoke, and endeavouring to found national institutions on Liberty. In the general effervescence and enthusiasm Zeno was not cold. His political activity we have no means of judging; but we learn that it was great and beneficial. Elea was but a small colony; but Zeno preferred it to the magnificence of Athens, whose luxurious, restless, quibbling, frivolous, passionate, and unprincipled citizens he contrasted with the provincial modesty and honesty of Elea. He did, however, occasionally visit Athens, and there promulgated the doctrines of his master, as we see by the opening of Plato's dialogue, the *Parmenides*. There he taught Pericles.

On the occasion of his last return to Elea, he found it had fallen into the hands of the tyrant Nearchus (or Diomedon, or Demylos: the name is differently given by ancient writers). He, of course, conspired against him, failed in his project, and was captured. It was then, as Cicero observes, that he proved the excellence of his master's doctrines, and proved that a courageous soul fears only that which is base, and that fear and pain are for women and children, or men who have feminine hearts. When Nearchus interrogated him as to his accomplices, he threw the tyrant into an agony

of doubt and fear by naming all the courtiers: a masterstroke of audacity, and in those days not discreditable. Having thus terrified his accuser, he turned to the spectators, and exclaiming, 'If you can consent to be slaves from fear of what you see me now suffer, I can only wonder at your cowardice.' So saying, he bit his tongue off, and spat it in the face of the tyraut. The people were so roused that they fell upon Nearchus and slew him.

There are considerable variations in the accounts of this story by ancient writers, but all agree in the main narrative given above. Some say that Zeno was pounded to death in a huge mortar. We have no trustworthy account of his death.

As a philosopher, Zeno's merits are peculiar. He was the inventor of that logic so celebrated as *Dialectics*. This, which, in the hands of Socrates and Plato, became a powerful weapon of offence, is, by the universal consent of antiquity, ascribed to Zeno. It may be defined as 'A refutation of error by the *reductio ad absurdum* as a means of establishing the truth.' The truth to be established in Zeno's case was the system of Parmenides; we must not, therefore, seek in his arguments for any novelty beyond the mere exercise of dialectical subtlety. He brought nothing new to the system; but he invented a great method of polemical exposition. The system had been conceived by Xenophanes; precision had been given to it by Parmenides; and there only remained for Zeno the task of fighting for and defending it; which task he admirably fulfilled. 'The destiny of Zeno was altogether polemical. Hence, in the external world, the impetuous existence and tragical end of the patriot; and, in the internal world, the world of thought, the laborious character of Dialectician.'*

It was this fighter's destiny which caused him to perfect the art of offence and defence. He very naturally wrote in *prose;* of which he set the first example: for, as the wild and turbulent enthusiasm of Xenophanes would instinctively express itself in poetry, so would the argumentative subtlety of Zeno naturally express itself in prose. The great Rhapsodist wandered from city to city, intent upon earnest and startling enunciation of the mighty thoughts stirring confusedly within him; the great Logician was more intent upon a convincing exposition of the futility of the arguments alleged against his system, than upon any propagande of the system itself; for he held that the truth must be accepted when once error is exposed.

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* Cousin, *Fragmens Philosophiques*, art. *Zénon d'Elée.*

'Antiquity,' says M. Cousin, 'attests that he wrote not poems, like Xenophanes and Parmenides, but treatises, and treatises of an eminently prosaic character: that is to say, refutations.'

The reason of this may be easily guessed. Coming as a young man to Athens, to preach the doctrine of Parmenides, he must have been startled at the opposition which that doctrine met with from the subtle, quick-witted, and empirical Athenians, who had already erected the Ionian philosophy into the reigning doctrine. Zeno, no doubt, was at first stunned by the noisy objections which on all sides surrounded him; but, being also one of the keenest of wits, and one of the readiest, he would soon have recovered his balance, and in turn assailed his assailers. Instead of teaching dogmatically, he began to teach dialectically. Instead of resting in the domain of pure science, and expounding the ideas of Reason, he descended upon the ground occupied by his adversaries,—the ground of daily experience and sense-knowledge,—and turning their ridicule upon themselves, forced them to admit that it was more easy to conceive The Many as a produce of The One, than to conceive The One on the assumption of the existing Many.

'The polemical method entirely disconcerted the partisans of the Ionian philosophy,' says M. Cousin, 'and excited a lively curiosity and interest for the doctrines of the Italian (Pythagorean) school; and thus was sown in the capital of Greek civilization the fruitful germ of a higher development of philosophy.'

Plato has succinctly characterized the difference between Parmenides and Zeno by saying, that the master established the existence of The One, and the disciple proved the non-existence of The Many.

When he argued that there was but One thing really existing, all the others being only modifications or appearances of that One, he did not deny that there were *many appearances*, he only denied that these appearances were real existences. So, in like manner, he denied motion, but not the appearance of motion. Diogenes the Cynic, who to refute his argument against motion rose and walked, entirely mistook the argument; his walking was no more a refutation of Zeno, than Dr. Johnson's kicking a stone was a refutation of Berkeley's denial of matter. Zeno would have answered: Very true: you walk: according to Opinion (*τὸ δοξαστόν*), you are in motion; but according to Reason you are at rest. What you call motion is but the *name* given to a series of similar conditions, each of which, separately considered, is *rest*. Thus, every object filling space equal to its bulk is necessarily at rest in that space; motion from one spot

to another is but a name given to the *sum-total* of all these *intermediate spaces* in which *the object at each moment is at rest*. Take the illustration of the circle: a circle is composed of a number of individual points, or straight lines; not one of these lines can individually be called a circle; but all these lines, considered as a totality, have one general name given them, viz. a circle. In the same way, in each individual point of space the object is at rest; the sum total of a number of these states of rest is called motion.

The original fallacy is in the supposition that Motion is a thing superadded, whereas, as Zeno clearly saw, it is only a *condition*. In a falling stone there is not the 'stone' and a thing called 'motion;' otherwise there would be also another thing called 'rest.' But both motion and rest are names given to express conditions of the stone. Even rest is a positive exertion of *force*. Rest is force resistent, and Motion is force triumphant. It follows that matter is always in motion; which amounts to the same as Zeno's saying, there is no such thing as motion.

The other arguments of Zeno against the possibility of Motion (and he maintained four, the third of which we have above explained,) are given by Aristotle; but they *seem* more like the ingenious puzzles of dialectical subtlety than the real arguments of an earnest man. It has, therefore, been asserted, that they were only brought forward to ridicule the unskilfulness of his adversaries. We must not, however, be hasty in rescuing Zeno from his own logical net, into which he may have fallen as easily as others. Greater men than he have been the dupes of their own verbal distinctions.

Here are his two first arguments:—

1. Motion is impossible, because before that which is in motion can reach the end, it must reach the middle point; but this middle point then becomes the end, and the same objection applies to it,—since to reach it the object in motion must traverse a middle point; and so on *ad infinitum*, seeing that matter is infinitely divisible. Thus, if a stone be cast four paces, before it can reach the fourth it must reach the second; the second then becomes the end, and the first pace the middle: but before the object can reach the first pace it must reach the half of the first pace, and before the half it must reach the half of that half; and so on *ad infinitum*.

2. This is his famous Achilles puzzle. We give both the statement and refutation as we find it in Mill's *Logic* (ii. 453).

The argument is, let Achilles run ten times as fast as a tortoise,

yet, if the tortoise has the start, Achilles will never overtake him: for, suppose them to be at first separated by an interval of a thousand feet; when Achilles has run these thousand feet the tortoise will have run a hundred, and when Achilles has run those hundred the tortoise will have got on ten, and so on for ever: therefore Achilles may run for ever without overtaking the tortoise.

Now the 'for ever' in the conclusion means, for any length of time that can be supposed; but in the premisses 'for ever' does not mean any *length* of time,—it means any *number of subdivisions of time*. It means that we may divide a thousand feet by ten, and that quotient again by ten, and so on as often as we please; that there never need be an end to the subdivisions of the distance, nor, consequently, to those of the time in which it is performed. But an unlimited number of subdivisions may be made of that which is itself limited. The argument proves no other infinity of duration than may be embraced within five minutes. As long as the five minutes are not expired, what remains of them may be divided by ten, and again by ten, as often as we like, which is perfectly compatible with their being only five minutes altogether. It proves, in short, that to pass through this finite space requires *a time which is infinitely divisible*, but not an *infinite time*; the confounding of which distinction Hobbes had already seen to be the gist of the fallacy.

Although the credit of seeing the ground of the fallacy is given by Mill to Hobbes, we must also observe that Aristotle had clearly seen it in the same light. His answer to Zeno, which Bayle thinks 'pitiable,' was, that a foot of space being only *potentially infinite*, but *actually finite*, it could be easily traversed in a *finite time*.

We have no space to follow Zeno in his various arguments against the existence of a multitude of things. His position may be briefly summed up thus:—There is but one Being existing necessarily indivisible and infinite. To suppose that The One is divisible, is to suppose it finite. If divisible, it must be infinitely divisible. But, suppose two things to exist, then there must necessarily be an interval between those two: something separating and limiting them. What is that something? It is some *other* thing. But then, if not the *same* thing, *it also* must be separated and limited; and so on *ad infinitum*. Thus only One thing can exist as the *substratum* for all manifold appearances.

Zeno closes the second great line of independent inquiry, which, opened by Anaximander, and continued by Pythagoras, Xenophanes, and Parmenides, we may characterize as the Mathematical or

Absolute system. Its opposition to the Ionian, Physical or Empirical system was radical and constant. But, up to the coming of Zeno, these two systems had been developed almost in parallel lines, so little influence did they exert upon each other. The two systems clashed together on the arrival of Zeno at Athens. The result of the conflict was the creation of a new method,—Dialectics. This method created the Sophists and the Sceptics. It also greatly influenced all succeeding schools, and may be said to have constituted one great peculiarity of Socrates and Plato, as will be shown.

We must however previously trace the intermediate steps which philosophy took, before the crisis of Sophistry, which preceded the era of Socrates.

SECOND EPOCH.

SPECULATIONS ON THE CREATION OF THE UNIVERSE, AND ON THE ORIGIN OF KNOWLEDGE.

CHAPTER I.

§ I. Heraclitus.

'LIFE is a comedy to those who think, a tragedy to those who feel.' This, Horace Walpole's, epigram, may be applied to Democritus and Heraclitus, celebrated throughout antiquity as the laughing and the weeping philosophers:

> 'One pitied, one condemn'd the woful times;
> One laugh'd at follies, and one wept o'er crimes.'

Modern criticism has indeed pronounced both these characteristics to be fabulous; but fables themselves are often only exaggerations of truth, and there must have been something in each of these philosophers which formed the nucleus round which the fables grew. Of Heraclitus it has been well said, 'The vulgar notion of him as the crying philosopher must not be wholly discarded, as if it meant nothing, or had no connection with the history of his speculations. The thoughts which came forth in his system are like fragments torn from his own personal being, and not torn from it without such an effort and violence as must needs have drawn a sigh from the sufferer. If Anaximenes discovered that he had within him a power and principle which ruled over all the acts and functions of his bodily frame, Heraclitus found that there was a life within him which he could not call his own, and yet it was, in the very highest sense, *himself,* so that without it he would have been a poor, helpless, isolated creature;—a universal life, which connected him with his fellow-men,—with the absolute source and original fountain of life.'*

Heraclitus was the son of Blyson, and was born at Ephesus, about

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* Maurice, *Moral and Metaphysical Philosophy.*

the 69th Olympiad (B.C. 503). Of a haughty, melancholy temper, he refused the supreme magistracy which his fellow-citizens offered him, on account, according to Diogenes Laertius, of their dissolute morals; but, as he declined the offer in favour of his brother, we are disposed to think his rejection was grounded on some other cause. Is not his rejection of magistracy in perfect keeping with what else we know of him? For instance: playing with some children near the temple of Diana, he answered those who expressed surprise at seeing him thus occupied, 'Is it not better to play with children, than to share with you the administration of affairs?' The contempt which pierces through this reply, and which subsequently grew into confirmed misanthropy, may have been the result of morbid meditation, rather than of virtuous scorn. Was it because the citizens were corrupt, that he refused to exert himself to make them virtuous? Was it because the citizens were corrupt, that he retired to the mountains, and there lived on herbs and roots, like an ascetic? If Ephesus was dissolute, was there not the rest of Greece for him to make a home of? He fled to the mountains, that he might there, in secret, prey on his own heart. He was a misanthrope, and misanthropy is madness, not virtuous indignation; misanthropy issues from the morbid consciousness of self, not from the sorrowful opinion formed of others. The aim of his life had been to explore the depths of his own nature. This has been the aim of all ascetics, as of all philosophers: but in the former it is *morbid* anatomy; in the latter it is science.

The contemptuous letter in which he declined the courteous invitation of Darius to spend some time at his court, will best explain his character:—

'*Heraclitus of Ephesus to the King Darius, son of Hystaspes, health!*

'All men depart from the paths of truth and justice. They have no attachment of any kind but avarice; they only aspire to a vainglory with the obstinacy of folly. As for me, I know not malice; I am the enemy of no one. I utterly despise the vanity of courts, and never will place my foot on Persian ground. Content with little, I live as I please.'

Misanthropy was the nucleus of the fable of Heraclitus as a weeping philosopher, who refused the magistracy because the citizens were corrupt. The story of his attempting to cure himself of a dropsy by throwing himself on a dunghill, hoping that the heat would cause the water within him to evaporate, is apocryphal.

The Philosophy of Heraclitus was, and is, the subject of dispute. He expressed himself in such enigmatical terms, that he was called 'the Obscure.' A few fragments have been handed down to us.* From these it would be vain to hope that a consistent system could be evolved; but from them, and from other sources, we may gather the general tendency of his doctrines.

The tradition which assigns him Xenophanes as a teacher, is borne out by the evident relation of their systems. Heraclitus is somewhat more Ionian than Xenophanes: that is to say, in him the physical explanation of the universe is more prominent. At the same time, Heraclitus is neither frankly Ionian nor Italian; he wavers between the two. The pupil of Xenophanes would naturally regard human knowledge as a mist of error, through which the sunlight only gleamed at intervals. But the inheritor of the Ionian doctrines would not adopt the conclusion of the Mathematical school, namely, that the cause of this uncertainty of knowledge is the uncertainty of sensuous impressions; and that consequently Reason is the only fountain of truth. Heraclitus was not mathematician enough for such a doctrine: he was led to maintain a doctrine directly opposed to it. He maintained that the senses are the sources of all true knowledge, for they drink in the universal intelligence. The senses deceive only when they belong to barbarian souls: in other words, the ill-educated sense gives false impressions, the rightly-educated sense gives truth. Whatever is common is true; whatever is remote from the common, *i. e.* the exceptional, is false. The True is the Unhidden.† Those whose senses are open to receive the Unhidden, the Universal, attain truth.

As if to mark the distinction between himself and Xenophanes more forcibly, he says: 'Inhaling through the breath the Universal Ether, which is Divine Reason, we become conscious. In sleep we are unconscious, but on waking we again become intelligent; for in sleep, when the organs of sense are closed, the mind within is shut out from all sympathy with the surrounding ether, the universal Reason; and the only connecting medium is the breath, as it were a root, and by this separation the mind loses the power of recollection it before possessed. Nevertheless on awakening the mind repairs its memory through the senses, as it were through inlets; and

* Schleiermacher has collected, and endeavoured to interpret them, in Wolf and Buttmann's *Museum der Alterthumswissenchaften*, vol. i. part iii.

† Ἀληθὲς τὸ μὴ λῆθον. This kind of play upon words is very characteristic of metaphysical thinkers in all ages.

thus, coming into contact with the surrounding ether, it resumes its intelligence. As fuel when brought near the fire is altered and becomes fiery, but on being removed again becomes quickly extinguished; so too the portion of the all-embracing which sojourns in our body becomes more irrational when separated from it; but on the restoration of this connection, through its many pores or inlets, it again becomes similar to the whole.'

Can anything be more opposed to the Eleatic doctrine? That system rests on the certitude of pure Reason; this declares that Reason left to itself, *i. e.* the mind when it is not nourished by the senses, can have no true knowledge. The one system is exclusively rational, the other exclusively material; but both are pantheistical, for in both it is the universal Intelligence which becomes conscious in man,—a conception pushed to its ultimate limits by Hegel. Accordingly Hegel declares that there is not a single point in the Logic of Heraclitus which he, Hegel, has not developed in his Logic.

The reader will remark how in Heraclitus, as in Parmenides, there is opened the great question which for so long agitated the schools, and which still agitates them,—the question respecting the origin of our ideas. He will also remark how the two great parties, into which thinkers have divided themselves on the question, are typified in these two early thinkers. In Parmenides the idealist school, with its contempt of sense; in Heraclitus the materialist school, with its contempt of everything not derived from sensation.

With Xenophanes, Heraclitus agreed in denouncing the perpetual delusion which reigned in the mind of man; but he placed the cause of that delusion in the imperfection of human Reason, not, as Xenophanes had done, in the imperfection of Sense. He thought that man had too little of the Divine Ether (soul) within him. Xenophanes thought that the senses clouded the intellectual vision. The one counselled man to let the Universal mirror itself in his soul through the senses; the other counselled him to shut himself up within himself, to disregard the senses, and to commune only with ideas.

It seems strange that so palpable a contradiction between two doctrines should ever have been overlooked. Yet such is the fact. Heraclitus is said to have regarded the world of Sense as a perpetual delusion: and this is said in the very latest and not the least intelligent of Histories, to say nothing of former works. Whence this opinion? Simply from the admitted scepticism of both Heraclitus and Xenophanes with respect to Phenomena (appearances). It is

true they both denied the certainty of human knowledge, but they denied this on different grounds. 'Man has no certain knowledge,' said Heraclitus, 'but God has; and vain man learns from God just as the boy from the man.' In his conception, human intelligence was but a portion of the Universal Intelligence; but a part can never be otherwise than imperfect. Hence it is that the opinion of all mankind upon any subject (common sense) must be a nearer approximation to the truth than the opinion of any individual; because it is an accumulation of parts, making a nearer approach to the whole.

While therefore he maintained the uncertainty of all knowledge, he also maintained its certainty. Its origin was Sense; being sensuous and individual, it was imperfect, *because* individual; but it was true as far as it went. The ass, he scornfully said, prefers thistles to gold. To the ass gold is *not* so valuable as thistle. The ass is at once right and wrong. Man is equally right and wrong in all positive affirmations; for nothing truly *is*, about which a positive affirmation can be made. 'All is,' he said, 'and all is not; for though in truth it does come into being, yet it forthwith ceases to be.'

We are here led to his celebrated doctrine of all things as a 'perpetual flux and reflux;' which Hegel declares to be an anticipation of his own celebrated dogma, *Seyn und Nichtseyn ist dasselbe*: 'Being and Non-Being is the same.'* Heraclitus conceived the principle—*ἀρχή*—of all things to be Fire. To him Fire was the type of spontaneous force and activity; not flame, which was only an intensity of Fire, but a warm, dry vapour—an Ether; this was the beginning. He says: 'The world was made neither by God† nor man; and it was, and is, and ever shall be, an ever-living fire in due measure self-enkindled and in due measure self-extinguished.' That this is but a modification of the Ionian system, the reader will at once discern. The Fire, which here stands as the semi-

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* Much of the ridicule which this logical canon has excited, especially in England, has been prompted by the blindest misunderstanding. The laughers, misled by verbal ambiguity, have understood Hegel to say that Existence and Non-Existence was one and the same, as if by *Nichtseyn* he meant Nothing. He meant by Nothing No Thing—no *phenomenon*. The position is perhaps absurd, but it is not for metaphysicians to say so.

† This is the translation given in Ritter: it is not however exact; *οὔτε τις θεῶν* is the original, *i. e.* 'neither one of the Gods,' meaning of course one of the polytheistic Deities.

symbol of Life and Intelligence, because of its spontaneous activity, is but a modification of the Water of Thales and the Air of Anaximenes; moreover, it is only semi-symbolical. Those who accept it as a pure symbol overlook the other parts of the system. The system which proclaims the senses as the source of all knowledge necessarily attaches itself to a material element as the primary one. At the same time this very system is in one respect a deviation from the Ionian; in the distinction between sense-knowledge and reflective knowledge. Hence we placed Diogenes of Apollonia as the last of the pure Ionians; although chronologically he came some time after Heraclitus, and his doctrine is in many respects the same as that of Heraclitus.

This Fire which is for ever kindling into flame, and passing into smoke and ashes; this restless, changing flux of things which never *are*, but are ever *becoming*; this he proclaimed to be God, or the One.

Take his beautiful illustration of a river: 'No one has ever been twice on the same stream; for different waters are constantly flowing down; it dissipates its waters and gathers them again—it approaches and it recedes—it overflows and falls.' This is evidently but a statement of the flux and reflux, as in his aphorism that 'all is in motion; there is no rest or quietude.' Let us also add here what Ritter says:—

'The notion of life implies that of alteration, which by the ancients was generally conceived as motion. The Universal Life is therefore an eternal motion, and therefore tends, as every motion must, towards some end, even though this end, in the course of the evolution of life, present itself to us as a mere transition to some ulterior end. Heraclitus on this ground supposed a certain longing to be inherent in Fire, to gratify which it constantly transformed itself into some determinate form of being, without, however, any wish to maintain it, but in the mere desire of transmuting itself from one form into another. Therefore, to make worlds is Jove's pastime.'

He explained phenomena as the concurrence of opposite tendencies and efforts in the motion of the ever-living Fire, out of which results the most beautiful harmony. All is composed of contraries, so that the good is also evil, the living is dead, etc. The harmony of the world is one of conflicting impulses, like that of the lyre and the bow. The strife between opposite tendencies is the parent of all things: *πόλεμος πάντων μὲν πατὴρ ἐστὶ πάντων δὲ βασιλεύς, καὶ*

τοὺς μὲν θεοὺς ἔδειξε τοὺς δὲ ἀνθρώπους, τοὺς μὲν δούλους ἐποίησε τοὺς δὲ ἐλευθέρους. Nor is this simple metaphor: the strife here spoken of is the splitting in two of that which is in essence one; the contradiction which necessarily lies between the particular and the general, the result and the force, Being and Non-Being. All life is change, and change is strife.

Heraclitus was the first to proclaim the absolute vitality of Nature, the endless change of matter, the mutability and perishability of all individual things, in contrast with the eternal Being, the supreme Harmony which rules over all.

The view we have taken of his doctrines will at once explain the position in which we have placed them. He stands with one foot on the Ionian path, and with the other on the Italian; but his attempt is not to unite these two: his office is negative; he has to criticize both.

§ II. Anaxagoras.

Anaxagoras is generally said to have been born at Clazomenæ in Lydia, not far from Colophon. Inheriting from his family a splendid patrimony, he seemed born to figure in the State; but, like Parmenides, he disregarded all such external greatness, and placed his ambition elsewhere. Early in life, so early as his twentieth year, the passion for philosophy engrossed him. Like all young ambitious men, he looked with contempt upon the intellect exhibited in his native city. His soul panted for the capital. The busy activity, and the growing importance of Athens, solicited him. He yearned towards it, as the ambitious youth in a provincial town yearns for London; as all energy longs for a fitting theatre on which to play its part.

He came to Athens. It was a great and stirring epoch. The countless hosts of Persia had been scattered by a handful of resolute men. The political importance of Greece, and of Athens the Queen of Greece, was growing to a climax. The Age of Pericles, one of the most glorious in the long annals of mankind, was dawning. The Poems of Homer formed the subject of literary conversation, and of silent enjoyment. The early triumphs of Æschylus had created a Drama, such as still remains the wonder and delight of scholars and critics. The young Sophocles, that perfect flower of antique art, was then in his bloom, meditating on that Drama which he was hereafter to bring to perfection in the *Antigone* and the

Œdipus Rex. The Ionian philosophy had found a home at Athens; and the young Anaxagoras shared his time with Homer and Anaximenes.*

Philosophy soon obtained the supreme place in his affections. The mysteries of the universe tempted him. He yielded himself to the fascination, and declared that the aim and purpose of his life was to contemplate the heavens. All care for his affairs was given up. His estates ran to waste, whilst he was solving problems. But the day he found himself a beggar, he exclaimed, 'To Philosophy I owe my worldly ruin, and my soul's prosperity.' He commenced teaching, and he had illustrious pupils in Pericles, Euripides, and Socrates.

He was not long without paying the penalty of success. The envy and uncharitableness of some, joined to the bigotry of others, caused an accusation of impiety to be brought against him. He was tried, and condemned to death; but owed the mitigation of his sentence into banishment, to the eloquence of his friend and pupil, Pericles. Some have supposed that the cause of his persecution was this very friendship of Pericles; and that the statesman was struck at through the unpopular philosopher. The supposition is gratuitous, and belongs rather to the ingenuity of modern scholarship, than to the sober facts of history. In the persecution of Anaxagoras there is nothing but what was very natural; it occurred afterwards in the case of Socrates, and it has subsequently occurred a thousand times in the history of mankind, as the simple effect of outraged convictions. Anaxagoras attacked the religion of his time: he was tried and condemned for his temerity.

After his banishment he resided in Lampsacus, and there preserved tranquillity of mind until his death. 'It is not I who have lost the Athenians; it is the Athenians who have lost me,' was his proud reflection. He continued his studies, and was highly respected by the citizens, who, wishing to pay some mark of esteem to his memory, asked him on his death-bed in what manner they

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* By this we no more intimate that he was a *disciple* of Anaximenes (as some historians assert) than that he was a friend of Homer. But in some such ambiguous phrase as that in the text, must the error of calling him the disciple of Anaximenes have arisen. Brucker's own chronology is strangely at variance with his statement: for he places the birth of Anaximenes, 56th Olympiad; that of Anaxagoras, 70th Olympiad: thus making the master fifty-six years old at the birth of the pupil; and the pupil only became such in the middle of his life.

could do so. He begged that the day of his death might be annually kept as a holiday in all the schools of Lampsacus. For centuries this request was fulfilled. He died in his seventy-third year. A tomb was erected to him in the city, with this inscription:—

'This tomb great Anaxagoras confines,
Whose mind explored the heavenly paths of Truth.'

His philosophy contains so many contradictory principles, or perhaps it would be more correct to say so many contradictory principles are attributed to him, that it would be vain to attempt a systematic view of them. We shall, as usual, confine ourselves to leading doctrines.

On the great subject of the origin and certainty of our knowledge, he differed from Xenophanes and Heraclitus. He thought, with the former, that all sense-knowledge is delusive; and, with the latter, that all knowledge comes through the senses. Here is a double scepticism brought into play. It has usually been held that these two opinions contradict each other; that he could not have maintained both. Yet both opinions are tenable. His reason for denying certainty to the senses was the incapacity of distinguishing all the real objective elements of which things are made. Thus the eye discerns a complex mass which we call a flower; but discerns nothing of that *of which* the flower is composed. In other words, the senses perceive *phenomena*, but do not, and cannot observe *noumena*,*—an anticipation of the greatest discovery of modern psychology, though seen dimly and confusedly by Anaxagoras. Perhaps the most convincing proof of his having so conceived knowledge is in the passage quoted by Aristotle: 'Things are to each according as they seem to him' (ὅτι τοιαῦτα αὐτοῖς τὰ ὄντα, οἷα ἂν ὑπολάβωσι). What is this but the assertion of all knowledge being confined to phenomena? It is further strengthened by the passage in Sextus Empiricus, that 'phenomena are the criteria of our knowledge of things beyond sense,' *i. e.*, things inevident are evident in phenomena (τῆς τῶν ἀδήλων καταλήψεως, τὰ φαινόμενα).

It must not, however, be concluded, from the above, that Anaxa-

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* *Noumenon* is the antithesis to *Phenomenon*, which means *Appearance; Noumenon* means the *Substratum*, or, to use the scholastic word, the *Substance*. Thus, as matter is recognized by us only in its manifestations (phenomena), we may logically distinguish those manifestations from the thing manifested (noumenon). And the former will be the *materia circa quam;* the latter, the *materia in quâ*. Noumenon is therefore equivalent to the *Essence;* Phenomenon to the *Manifestation*.

goras regarded Sense as the sole origin of Knowledge. He held that the Reason (λόγος) was the regulating faculty of the mind, as Intelligence (νοῦς) was of the universe. The senses are accurate in their reports; but their reports are not accurate *copies of Things*. They reflect objects; but they reflect them as these objects appear to Sense. Reason has to control these impressions, to verify these reports.

Let us now apply this doctrine to the explanation of some of those apparently contradictory statements which have puzzled all the critics. For instance, Anaxagoras says that snow is not white but black, because the water of which it is composed is black. Now, in this he could not have meant that snow did not *appear* to our senses white; his express doctrine of sense-knowledge forbids such an interpretation. But Reason told him that the Senses gave inaccurate reports; and, in this instance, Reason showed him how their report was contradictory, since the water was black, yet the snow white. Here, then, is the whole theory of knowledge exemplified: Sense asserting that snow is white; Reflection asserting that snow being made from black water could not be white. He had another illustration:—Take two liquids, white and black, and pour the one into the other drop by drop: the eye will be unable to discern the actual change as it is gradually going on; it will only discern it at certain marked intervals.

Thus did he separate himself at once from Xenophanes and Heraclitus. From the former, because admitting Sense to be the only criterion of things, the only source of knowledge, he could not regard the λόγος as the unfailing source of truth, but merely as the reflective power, whereby the reports of sense were controlled. From the latter, because reflection convinced him that the reports of the senses were *subjectively* true, but *objectively* false;* (Heraclitus maintained that the reports of the senses were alone certain.) Both Xenophanes and Heraclitus had principles of absolute certitude; the one proclaimed Reason, the other Sense, to be that principle.

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* Subjective and objective are now almost naturalized: it may not be superfluous, nevertheless, to explain them. The *subject* means 'the Mind of the Thinker' (*Ego*), the *object* means the 'Thing thought of' (*Non-Ego*). In the above passage 'the reports of the senses being subjectively true' means that the senses truly inform us of their *impressions*; but these impressions are not at all like the actual *objects* (as may be shown by the *broken appearance* of a stick, half of which is dipped in water), and therefore the reports are 'objectively false.'

Anaxagoras annihilated the one by showing that the Reason was dependent on the senses for materials; and he annihilated the other by showing that the materials were fallacious.

Having thus, not without considerable difficulty, brought his various opinions on human knowledge under one system, let us endeavour to do the same for his cosmology. The principle of his system is thus announced:—'Wrongly do the Greeks suppose that aught begins or ceases to be; for nothing comes into being or is destroyed; but all is an aggregation or secretion of pre-existent things: so that all becoming might more correctly be called becoming-mixed, and all corruption becoming separate.' What is the thought here? It is that instead of there being a Creation, there was only an Arrangement; instead of one first element, there was an infinite number of elements. These elements are the celebrated *homœomeriæ*:—

'Ex aurique putat micis consistere posse
Aurum, et de terris terram concrescere parvis;
Ignibus ex ignem, humorem ex humoribus esse;
Cætera consimili fingit ratione putatque.'*

This singular opinion, which maintains that flesh is made of molecules of elementary flesh, and bones of elementary bones, and so forth, is intelligible when we remember his theory of knowledge. The Sense discerns elementary differences in matter, and reflection confirms the truth of this observation. If Nothing can proceed from Nothing, all things can be only an arrangement of existing things; but when in this Arrangement certain things are discovered to be radically distinguished from each other, gold from blood for example, —either the distinction observed by the Senses is altogether false, or else the things distinguished must be elements. But the first horn of the dilemma is avoided by the sensuous nature of all knowledge; if the Senses deceive us in this respect, and Reason does not indicate the deception, then is knowledge all a delusion; therefore, unless we adopt scepticism, we must abide by the testimony of the Senses, as to the distinction of things. But, having granted the distinction, we must grant that the things distinguished are

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* Lucretius, i. 839.—

'That gold from parts of the same nature rose,
That earths do earth, fires fire, airs air compose,
And so in all things else alike to those.'—Creech.

There seems to be good reason to believe that not Anaxagoras, but Aristotle, was the originator of the word *homœomeriæ*. See Ritter, i. 286.

elements; if not, whence the distinction? Nothing can come of Nothing; blood can only become blood, gold can only become gold, mix them how you will; if blood can become bone, then does bone become something out of nothing, for it was not bone before, and it is bone now. But, as blood can only be blood, and bone only be bone, whenever they are mingled it is a mingling of two elements, *homœomeriæ*.

In the beginning therefore there was the Infinite composed of *homœomeriæ*, or elementary seeds of infinite variety. So far from The All being The One, as Parmenides and Thales equally taught, Anaxagoras proclaimed The All to be The Many. But the mass of elements were as yet unmixed. What was to mix them? What power caused them to become arranged in one harmonious all-embracing system?

This power Anaxagoras declared to be Intelligence (*νοῦς*), the moving force of the Universe. He had, on the one hand, rejected Fate, as an empty name; on the other, he rejected Chance, as being no more than the Cause unperceived by human reasoning (*τὴν τύχην, ἄδηλον αἰτίαν ἀνθρωπίνῳ λογισμῷ*). This is another remarkable glimpse of what modern philosophy was to establish. Having thus disclaimed these two powers, so potent in early speculation, Fate and Chance, he had no other course left than to proclaim Intelligence the Arranging Power.*

This seems to us, on the whole, the most remarkable speculation of all the pre-Socratic epoch; and indeed is so very near the philosophic precision of modern times, that it is with difficulty we preserve its original simplicity. We will cite a portion of the fragment preserved by Simplicius, wherein Intelligence is spoken of:—'Intelligence (*νοῦς*) is infinite, and autocratic; it is mixed up with nothing, but exists alone in and for itself. Were it otherwise, were it mixed up with anything, it would participate in the nature of all things; for in all there is a part of all; and so that which was mixed with intelligence would prevent it from exercising power over all things.'†—In this passage we have an expression of the modern conception of the Deity acting through invariable laws, but in no way mixed up with the matter acted on.

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* We have his own words reported by Diogenes, who says that his work opened thus: 'Formerly all things were a confused mass; afterwards, Intelligence coming, arranged them into worlds.'

† This passage perfectly accords with what Aristotle, says *De Animâ*, i. 2, and *Metaph.* i. 7.

Will not the foregoing remarks enable us to meet Aristotle's objection to Anaxagoras, that 'he uses Intelligence as a machine,* in respect to the formation of the world; so that, when he is embarrassed how to explain the cause of this or that, he introduces Intelligence; but in all other things it is any cause but Intelligence which produces things'? Now, surely this is a very unfair criticism, and could only be valid against one who, like Malebranche, saw God everywhere. Anaxagoras assigned to Intelligence the great Arrangement of the *homœomeriæ;* but of course he supposed that subordinate arrangements were carried on by themselves. The Christian thinker some centuries back believed that the Deity created and ordained all things; nevertheless when he burnt his finger the cause of the burn he attributed to fire, and not to God; but when the thunder muttered in the sky he attributed that to no cause but God. Is not this similar to the conception formed by Anaxagoras? What he *can* explain, he does explain by natural causes; whatever he is embarrassed to explain, whatever he does not understand, he attributes to God. It is here we see the force of Anaxagoras's opinion respecting Chance as an unascertained cause: what others called the effect of Chance, he called the effect of the universal Intelligence.

On the same grounds we object to the reasoning of Plato. Those who have read the *Phædo,*—and who has not read it in some shape or other, either in the original diction, or in the dim and misty version of some translator?—those who have read the *Phædo,* we say, will doubtless remember the passage in which Socrates is made to express his poignant disappointment at the doctrine of Anaxagoras, to which he had at first been so attracted. This passage has an air of authenticity. It expresses a real disappointment, and the disappointment of Socrates, not merely of Plato. We believe firmly that Socrates is here expressing his own opinion; and it is rarely that we can say this of opinions promulgated by Plato under the august name of his master. Here is the passage in the misty version of Thomas Taylor: we make no alterations, otherwise we should hold ourselves responsible for the whole:—

'But having once heard a person reading from a certain book,

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* This is an allusion to the theatrical artifice of bringing down a God from Olympus, to solve the difficulty of the *dénouement,*—the *Deus ex machinâ* of Horace. We make this remark to caution the reader against supposing that the objection is to a mechanical intelligence.

composed as he said by Anaxagoras, when he came to that part in which he says that intellect orders and is the cause of all things, I was delighted with this cause, and thought that in a certain respect it was an excellent thing for intellect to be the cause of all; and I considered if this was the case, disposing intellect would adorn all things, and place everything in that situation in which it would subsist in the best manner. If any one therefore should be willing to discover the cause through which everything is generated or corrupted, or is, he ought to discover how it may subsist in the best manner, or suffer, or perform anything else. In consequence of this therefore, it is proper that a man should consider nothing else, either about himself or about others, except that which is the most excellent and the best; but it is necessary that he who knows this should also know that which is subordinate, since there is one and the same science of both. But thus reasoning with myself, I rejoiced, thinking that I had found a preceptor in Anaxagoras who would instruct me in the causes of things agreeable to my own conceptions; and that he would inform me in the first place whether the earth is flat or round, and afterwards explain the cause of its being so, adducing for this purpose that which is better, and showing that it is better for the earth to exist in this manner. And if he should say that it is situated in the middle, that he would besides this show that it was better for it to be in the middle—and if he should render all this apparent to me, I was so disposed as not to require any other species of cause; for I by no means thought, after he had said that all these were orderly disposed by intellect, he would introduce any other cause for their subsistence except that which shows that it is better for them to exist in this manner. Hence I thought that in rendering the cause common to each particular and to all things, he would explain that which is best for each, and is the common good of all. And indeed I would not have exchanged these hopes for a mighty gain! But having obtained his books with prodigious eagerness, I read them with great celerity, that I might with great celerity know that which is best and that which is base.

'But from this admirable hope, my friend, I was forced away, when in the course of my reading I saw him make no use of intellect, nor employ certain causes for the purpose of orderly disposing particulars, but assign air, æther, and water, and many other things equally absurd, as the causes of things. And he appeared to me to be affected in a manner similar to him who should assert that all

the actions of Socrates are produced by intellect; and afterwards, endeavouring to relate the causes of each particular action, should say that I now sit here because, in the first place, my body is composed of bones and nerves, and that the bones are solid and are separated by intervals from each other; but that the nerves, which are by nature capable of intension and remission, cover the bones together with the skin in which they are contained. The bones therefore, being suspended from their joints, the nerves, by straining and relaxing them, enable me to bend my limbs as at present; and through this cause I here sit in an inflected position. And again, should assign other such like causes of my now conversing with you, namely, voice and air and hearing, and a thousand other particulars, neglecting the true cause, that since it appeared to the Athenians better to condemn me on this account, it also appeared to me better and more just to sit here, and thus abiding, sustain the punishment which they have ordained me; for otherwise, by the dog, as it appears to me, these bones and nerves would have been carried long ago either into Megara or Bœotia through an opinion of that which is best, if I had not thought it more just and becoming to sustain the punishment ordered by my country, whatever it might be, than to withdraw myself and run away. But to call things of this kind causes is extremely absurd. Indeed, if any one should say that without possessing such things as bones and nerves I could not act as I do, he would speak the truth; but to assert that I act as I do at present through these, and that I operate with this intellect, and not from a choice of what is best, would be an assertion full of extreme negligence and sloth: for this would be the consequence of not being able to collect by division that the true cause of a thing is very different from that without which a cause would not be a cause.'

Now this reasoning we take to be an *ignoratio elenchi*. The illustration made use of is nothing to the purpose, and would be admitted by Anaxagoras as true, without in the least impugning his argument.

The Intelligence, which Anaxagoras conceived, was in no wise a moral Intelligence: it was simply the *primum mobile*, the all-knowing and motive force by which the arrangement of the elements was affected. Hence, from a passage in Aristotle, some have inferred that the νοῦς was only a physical principle, the sole office of which was to set matter in motion. This is an error easy of explanation. Men are still so accustomed to conceive the divine Intelligence as only

a more perfect and exalted human Intelligence, that where they see no traces of the latter they are prone to question the existence of the former. When Anaxagoras says that *Nous* was the creative principle, men instantly figure to themselves a *Nous* similar to human intelligence. On examination they find that *such* an intelligence as they conceive has no place in the doctrine, whereupon they declare that Intelligence has no place there; the *Nous*, they aver, means no more than Motion, and might have been called Motion.

But fortunately Simplicius has preserved a long passage from the work of Anaxagoras; we have already quoted a portion of it, and shall now select one or two sentences in which the *Nous*, as a cognitive power, is distinctly set forth; and we quote these the more readily because Ritter, to whom we are indebted for the passage, has not translated it:—'Intelligence is, of all things, the subtlest and purest, and has entire knowledge of all. Everything which has a soul, whether great or small, is governed by the Intelligence (*νοῦς κρατεῖ*). Intelligence knows all things (*πάντα ἔγνω νοῦς*), both those that are mixed and those that are separated; and the things which ought to be, and the things which were, and those which now are, and those which will be; all are arranged by Intelligence (*πάντα διεκόσμησε νοῦς**).' Here the creative, or rather disposing, faculty is not more distinctly expressed than the cognitive. The *Nous* both *knows* and *acts:* this is its duplicate existence. A grand conception: one seldom rivalled in ancient speculation; one so far in advance of the epoch as to be a puzzle to all critics.

The relation in which the system of Anaxagoras stands to other systems may be briefly characterized. The Infinite Matter of the Ionians became in his hands the *homœomeriæ*. Instead of one substance, such as Water, Air, or Fire, he saw the necessity of admitting Many substances. At the same time, he carried out the Pythagorean and Eleatic principle of The One; thus avoiding the dialectical thrusts of Zeno against the upholders of The Many. Hegel and M. Cousin would call this eclecticism; and in one sense they would be correct; but inasmuch as Anaxagoras was led to his doctrine by the development which the Ionian and the Eleatic principles had taken, and was not led to it by any eclectical method, we

* It would be needless after this to refer to the numerous expressions of Aristotle in confirmation. The critical reader will do well to consult *Trendelenburg, Comment. Aristot. de Anim.*, p. 466 *et seq.* Plato, in speaking of the *νοῦς*, adds *καὶ ψυχή*.—*Craty.*, p. 400.

must protest against the application of such a name. There was a truth dimly recognized by the Ionians, namely, that the material phenomena are all reducible to some *noumenon* or *noumena*, some ἀρχή. What that Beginning was, they variously sought. Anaxagoras also sought it; and his doctrine of perception convinced him that it could not be One principle, but Many; hence his *homœomeriæ*. So far he was an Ionian. But there was also a truth dimly seen by the Eleatics, namely, that The Many could never be resolved into One; and as without One there could not be Many, and with the Many only there could not be One; in other words, as God must be The One from whom the multiplicity of things is derived, the necessity of admitting The One as The All and the Self-existent was proved. This reasoning was accepted by Anaxagoras. He saw that there were Many things; he saw also the necessity for The One. In so far he was an Eleatic.

Up to this point the two doctrines had been at variance: a chasm of infinite depth yawned between them. Zeno's invention of Dialectics was a result of this profound difference. It was reserved for Anaxagoras to bridge over the chasm which could not be filled up. He did so with consummate skill. He accepted both doctrines, with some modifications, and proclaimed the existence of the Infinite Intelligence (The One) who was the Architect of the Infinite Matter (*homœomeriæ*, the Many). By this means he escaped each horn of the dilemma: he escaped that which gored the Ionians, namely, as to *how* and *why* the Infinite Matter became fashioned into worlds and beings; since Matter by itself can only be Matter. He escaped that which gored the Eleatics, as to *how* and why the Infinite One, who was pure and unmixed, became the Infinite Many, impure and mixed; since one thing could never be more than one thing. It must have some other thing on which to act, for it cannot act upon itself. Anaxagoras escaped both by his dualistic theory of Mind fashioning, and Matter fashioned.

A similar bridge was thrown by him over the deep chasm separating the Sensualists from the Rationalists, with respect to the origin of knowledge. He admitted both Sense *and* Reason; others had only admitted either Sense *or* Reason.

These two points entitle Anaxagoras to a very high rank in the history of Philosophy; and we regret to see that Aristotle uniformly speaks disparagingly of him, but we believe that the great Stagirite did not clearly apprehend the force of the doctrine he was combating.

§ III. Empedocles.

We are forced to differ from all historians we have consulted, except De Gerando, who hesitates about the matter, respecting the place occupied by Empedocles. Brucker classes him among the Pythagoreans; Ritter, amongst the Eleatics; Zeller and Hegel, as the precursor of the Atomists, who precede Anaxagoras; Renouvier, as the precursor of Anaxagoras; Tennemann placing Diogenes of Apollonia between Anaxagoras and Empedocles, but making Democritus precede them. When we come to treat of the doctrines of Empedocles, we shall endeavour to show the filiation of ideas from Anaxagoras. Meanwhile it is necessary to examine the passage in Aristotle, on which very contradictory opinions have been grounded.

In the 3rd chapter of the 1st book of Aristotle's *Metaphysics*, after a paragraph on the system of Empedocles, occurs this passage: 'But Anaxagoras of Clazomenæ being superior to him (Empedocles) in respect of age, but inferior to him in respect of opinions, said that the number of principles was infinite.' By '*superior*' and '*inferior*' we preserve the antithesis of the original; but it would be more intelligible to say, '*older*' and '*inferior*.'

There are two other interpretations of this passage. One of them is that of M. Cousin (after Hegel), who believes that the antithesis of Aristotle is meant to convey the fact of Anaxagoras, although older in point of time, being more recent in point of published doctrine than Empedocles, having written after him. This is his translation: 'Anaxagoras, qui naquit avant ce dernier, mais qui écrivit après lui.'

The second is that adopted by M. Renouvier from M. Ravaisson, who interprets it as meaning that the doctrine of Anaxagoras, though more ancient in point of publication, is more recent in point of thought; *i. e.* more developed philosophically, although historically earlier.

Now we believe both these interpretations to be erroneous. There is no ground for them except the antithesis of Aristotle; and the original of this disputed passage is, *Ἀναξαγόρας δὲ ὁ Κλαζομένιος τῇ μὲν ἡλικίᾳ πρότερος ὢν τούτου, τοῖς δ' ἔργοις ὕστερος*: which is rendered by MM. Pierron and Zévort: 'Anaxagore de Clazomène, l'aîné d'Empédocle, *n'était pas arrivé à un système aussi plausible*.'*

This agrees with our version. We confess however that on a first glance M. Cousin's version better preserves the force of the

* *La Métaphysique d'Aristote*, i. 233.

antithesis *τῇ μὲν ἡλικίᾳ πρότερος—τοῖς δ' ἔργοις ὕστερος*. But other reasons prevent a concurrence in this interpretation. MM. Pierron and Zévort, in their note on the passage, remark: 'Mais les mots *ἔργῳ, ἔργοις*, dans une opposition, ont ordinairement une signification vague, comme *re, revera*, chez les Latins, et, chez nous, *en fait, en réalité*.' The force of the objection does not strike us. If Anaxagoras was *in fact, in reality*, posterior to Empedocles, we can only understand this in the sense M. Cousin has understood Aristotle; and moreover, MM. Pierron and Zévort here contradict their translation, which says that, in point of fact, the system of Anaxagoras was not so plausible as that of Empedocles.

More weight must be laid on the meaning of *ὕστερος*, which certainly cannot be exclusively taken to mean posterior in point of time. In the 11th chapter of Aristotle's 5th book he treats of all the significations of *πρότερος* and *ὕστερος*. One of these significations is superiority and inferiority. In the sense of inferiority *ὕστερος* is often used by the poets. Thus Sophocles:—

Ὦ μιαρὸν ἦθος, καὶ γυναικὸς ὕστερον!

'O shameful character, below a woman!'

'Inferior' is the primitive meaning; in English we say, 'second to none,' for 'inferior to none.'

This meaning of *ὕστερος*, namely, of inferiority, is the one always understood by the old commentators on the passage in question; none of them understood a chronological posteriority. *Πρότερος* indicates priority in point of time; *ὕστερος* inferiority in point of merit. Thus Philoponus: 'Prior quidem tempore, sed posterior et mancus secundum opinionem' (fol. 2 a); and the anonymous scholiast of the Vatican MS.: *πρότερος γοῦν τῷ χρόνῳ, ἀλλ' ὕστερος καὶ ἐλλείπων κατὰ τὴν δόξαν*—'first indeed in time, but second *and inferior* in point of doctrine.'

The only question which now remains to be answered in order to establish the truth of the foregoing interpretation of *ὕστερος*, is this: Did Aristotle regard the system of Anaxagoras as *inferior* to that of Empedocles?

This question we can answer distinctly in the affirmative. The reader will remember our citation of the passage in which Aristotle blames Anaxagoras for never employing his First Cause (Intelligence) except upon emergencies. Aristotle continues thus: 'Empedocles *employs his causes more abundantly*, though not indeed sufficiently,—*Καὶ Ἐμπεδοκλῆς ἐπὶ πλέον μὲν τούτῳ χρῆται τοῖς αἰτίοις, οὐ μὴ οὔτε ἱκανῶς*.—*Met.* i. 4.

Chronology is moreover in favour of our view. Anaxagoras was born about the 70th Olympiad; Empedocles, by general consent, is said to have flourished in the 84th Olympiad: this would make Anaxagoras at least fifty-six years old at the time when Empedocles published his doctrine, after which age it is barely probable that Anaxagoras would have begun to write; and even this probability vanishes when we look back upon the life of Anaxagoras, who was teaching in Athens about the 76th or 77th Olympiad, and who died at Lampsacus, in exile, in the 88th Olympiad, viz. sixteen years after the epoch in which Empedocles is said to have flourished.

Trusting that the above point was not unworthy of brief discussion, we will now commence the narrative.

Empedocles was born at Agrigentum, in Sicily, and flourished about the 84th Olympiad (B. C. 444). Agrigentum was at that period at the height of its splendour, and was a formidable rival to Syracuse. Empedocles, descended from a wealthy and illustrious family, acquired a high reputation by his resolute espousal of the democratic party. Much of his wealth is said to have been spent in a singular but honourable manner: namely, in bestowing dowries on poor girls, and marrying them to young men of rank and consequence. Like most of the early philosophers, he is supposed to have been a great traveller, and to have gathered in distant lands the wondrous store of knowledge which he displayed. It was assumed that only in the far East could he have learned the potent secrets of Medicine and Magic; only from the Egyptian Magi could he have learned the art of prophecy.

It is probable, however, that he did travel into Italy, and to Athens. But in truth we can mention little of his personal history that is not open to question. His name rivals that of Pythagoras in the regions of fable. The same august majesty of demeanour and the same marvellous power over nature are attributed to both. Miracles were his pastimes. In prophecy, in medicine, in power over the winds and rains, his wonders were so numerous and so renowned, that when he appeared at the Olympic Games all eyes were reverentially fixed upon him. His dress and demeanour accorded with his reputation. Haughty, impassioned, and eminently disinterested in character, he refused the government of Agrigentum when freely offered him by the citizens; but his love of distinction showed itself in priestly garments, a golden girdle, the Delphic crown, and a numerous train of attendants. He proclaimed him-

self to be a God whom men and women reverently adored. But we must not take this literally: he probably only 'assumed by anticipation an honour which he promised all soothsayers, priests, physicians, and princes of the people.'

Fable has also taken advantage of the mystery which overhangs his death, to create out of it various stories of marvel. One relates, that, after a sacred festival, he was drawn up to heaven in a splendour of celestial effulgence. Another and more popular one is, that he threw himself headlong into the crater of Mount Ætna, in order that he might pass for a God, the cause of his death being unknown; but one of his brazen sandals, thrown out in an eruption, revealed the secret.

A similar uncertainty exists as to his Teachers and his Writings. Pythagoras, Parmenides, Xenophanes, and Anaxagoras have all been positively named as his Teachers. Unless we understand the word Teachers in a figurative sense, we must absolutely reject these statements. Diogenes Laertius, who reports them, does so in his dullest manner, with an absence of criticism remarkable even in him.* Considering that there was, at least, one hundred and forty years between Pythagoras and Empedocles, we need no further argument to disprove any connection between them.

Diogenes, on the authority of Aristotle (as he says), attributes to Empedocles the invention of Rhetoric; and Quinctilian (iii. c. 1) has repeated the statement. We have no longer the work of Aristotle; but, as Ritter says, the assertion must have arisen from a misunderstanding, or have been said in jest by Aristotle, because Empedocles was the teacher of Gorgias: most likely from a misunderstanding, since Sextus Empiricus mentions Aristotle as having said that Empedocles first *incited,* or *gave an impulse* to Rhetoric.† Aristotle, in his *Rhetoric,* declares that Corax and Tisias were the first to publish a written Treatise on Eloquence. We feel the less hesitation in rejecting the statement of Diogenes, because in the very passage which succeeds he is guilty of a very gross misquotation of Aristotle, who, as he says, 'in his book of *The Poets* speaks of Empedocles as Homeric, powerful in his eloquence, rich in metaphors, and other poetical figures.'‡ Now this work of Aristotle on the

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* Diogenes is one of the stupidest of the stupid race of compilers. His work is useful because containing occasional extracts, but can rarely be relied on for anything else.

† Πρῶτον κεκινηκέναι.—*Adv. Mat.* vii.

‡ *Diog. Laert.* lib. viii. c. ii. § 3, p. 57.

Poets is fortunately extant, and it proclaims the very reverse of what Diogenes alleges. Here is the passage:—'Custom, indeed, connecting the *poetry* or *making* with the *metre*, has denominated some elegiac poets, others epic poets: thus distinguishing poets, not according to the nature of their imitation, but according to that of their metre only; for even they who composed treatises of Medicine, or Natural Philosophy in verse, are denominated *Poets: yet Homer and Empedocles have nothing in common except their metre;* the former, therefore, justly merits the name of *Poet;* the other should rather be called a *Physiologist* than a Poet.'*

It is indeed quite possible that Diogenes may have had before him a book περὶ ποιητῶν, perhaps one of the many spurious treatises current under Aristotle's name; but it is not probable that Aristotle would have expressed an opinion so contrary to the one given in his authentic work.

The diversity of opinion with respect to the position of Empedocles, indicated at the opening of this Chapter, is not without significance. That men such as Hegel, Ritter, Zeller, and Tennemann should see reasons for different classification cannot be without importance to the Historian. Their arguments destroy each other; but it does not therefore follow that they all build upon false grounds. Each view has a certain truth in it; but, not being the whole truth, it cannot prevail. The cause of the difference seems to be this: Empedocles has something of the Pythagorean, Eleatic, Heraclitic, and Anaxagorean systems in his system; so that each historian, detecting one of these elements, and omitting to give due importance to the others, has connected Empedocles with the system to which that one element belongs. Ritter and Zeller have, however, been aware of some of the complex relations of the doctrine, but failed, we think, in giving it its true position.

Respecting human knowledge, Empedocles belongs partly to the Eleatics. With them, he complained of the imperfection of the Senses; and looked for truth only in Reason, which is partly human and partly divine: it is partly clouded by the senses. The divine knowledge is opposed to sensuous knowledge; for men cannot approach the divine, neither can he seize it with the hand nor the eye. Hence Empedocles conjoined the duty of contemplating God in the mind. But he appears to have proclaimed the existence of this divine knowledge without attempting to deter-

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* *De Poet.*, c. i.

mine its relation to human knowledge. In this respect he resembles rather Xenophanes than Parmenides.*

We have no clear testimony of his having studied the works of Anaxagoras; but, if we had, it might not be difficult to explain his inferior theory of knowledge; for, in truth, the theory of Anaxagoras was too far in advance of the age to be rightly apprehended. Empedocles therefore adhered to the Eleatic theory. With Xenophanes, he bewailed the delusion of the senses and experience. Listen to his lament:

'Swift-fated and conscious, how brief is life's pleasureless portion!
Like the wind-driven smoke, they are carried backwards and forwards,
Each trusting to nought save what his experience vouches,
On all sides distracted; yet wishing to find out the whole truth,
In vain; neither by eye nor ear perceptible to man,
Nor to be grasped by mind: and thou, when thus thou hast wandered,
Wilt find that no further reaches the knowledge of mortals.'

These verses seem to indicate a scepticism of Reason as well as of the Senses; but other passages show that he upheld the integrity of Reason, which he thought was only prevented from revealing the whole truth because it was imprisoned in the body. Mundane existence was, in his system, the doom of such immortal souls as had been disgraced from Heaven. The Fall of Man he thus distinctly enunciated:

'This is the law of Fate, of the Gods an olden enactment,
If with guilt or murder a Dæmon† polluteth his members,
Thrice ten thousand years must he wander apart from the blessed.
Hence, doomed I stray, a fugitive from Gods and an outcast,
To raging strife submissive.'

But he had some more philosophical ground to go upon when he wished to prove the existence of Reason and of the Divine Nature. He maintained that like could only be known by like: through earth we learn the earth, through fire we learn fire, through strife we learn strife, and through love we learn love. If, therefore,‡ like could only be known by like, the Divine could only be known by

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* Having quoted Aristotle's testimony of the sensuous nature of knowledge in the Empedoclean theory, we need only here refer to it; adding that in this respect Empedocles ranks with Parmenides rather than with Xenophanes.

† An immortal soul.

‡ We are here thinking for Empedocles; we have no other authority for this statement, than that something of the kind is wanting to make out a plausible explanation of what is only implied in the fragments extant. The fragments tell us that he believed in Reason as the transcendent faculty; and also that Reason did in some way recognize the Divine. All we have done is to supply the link wanting.

Divine Reason; and, inasmuch as the Divine is recognized by man, it is a proof that the Divine exists. Knowledge and Existence mutually imply each other.

Empedocles resembles Xenophanes also in his attacks on anthropomorphism. God, he says, has neither head adjusted to limbs like human beings, nor legs, nor hands:

'He is, wholly and perfectly, mind ineffable, holy,
With rapid and swift-glancing thought pervading the whole world.'

We may compare these verses with the line of Xenophanes—

'Without labour he ruleth all things by reason and insight.'

Thus far Empedocles belonged to the Eleatics. The traces of Pythagoras are fewer; for we cannot regard as such all those analogies which the ingenuity of some critics has detected.* In his life, and in his moral precepts, there is a strong resemblance to Pythagoras; but in his philosophy we see none beyond metempsychosis, and the consequent abstinence from animal food.

Heraclitus had said there was nothing but a perpetual flux of things, that the whole world of phenomena was as a flowing river, ever-changing yet apparently the same. Anaxagoras had also said that there was no creation of elements, but only an arrangement. Empedocles was now to amalgamate these views. 'Fools!' he exclaims,

'Who think aught can begin to be which formerly was not,
Or, that aught which is, can perish and utterly decay.†
Another truth I now unfold: no natural birth
Is there of mortal things, nor death's destruction final;
Nothing is there but *a mingling, and then a separation of the mingled,*
Which are called a birth and death by ignorant mortals.'‡

So distinct a relationship as these verses manifest towards both Heraclitus and Anaxagoras will account for the classification adopted by Hegel, Zeller, and Renouvier; at the same time it gives greater strength to our opinion of Empedocles as the successor of these two.

The differences are however as great as the resemblances. Having asserted that all things were but a mingling and a separation, he must have admitted the existence of certain primary elements which were the materials mingled.

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* See them noticed in Zeller, *Philos. der Griechen*, pp. 169–173 (1845).

† Compare Anaxagoras, as quoted above: 'Wrongly do the Greeks suppose that aught begins or ceases to be.'

‡ Compare Anaxagoras: 'So that all-becoming might more properly be called becoming mixed, and all-corruption becoming separate.'

Heraclitus had affirmed Fire to be both the principle and the element; both the moving, mingling force, and the mingled matter. Anaxagoras, with great logical consistency, affirmed that the primary elements were *homœomeriæ*, since nothing could proceed from nothing, and whatever was arranged must, therefore, be an arrangement of primary elements. Empedocles affirmed that the primary elements were Four, viz. Earth, Air, Fire, and Water: out of these all other things proceed; all things are but the various minglings of these four.

Now, that this is an advance on both the preceding conceptions will scarcely be denied; it bears indubitable evidence of being a later conception, and a modification of its antecedents. Nevertheless, although superior as a physiological view, it has not the logical consistency of the view maintained by Anaxagoras; for, as Empedocles taught that like can only be known by like, *i.e.* that existence and knowledge were identical and mutually implicative, he ought to have maintained that whatever is recognized by the mind as distinct, must be distinct *in esse*.

With respect to the Formative Power, we see the traces of Heraclitus and Anaxagoras in about the same proportion. Heraclitus maintained that Fire was impelled by *irresistible Desire* to *transform itself* into some determinate existence. Anaxagoras maintained that the infinite Intelligence was the great Architect who arranged all the material elements, the Mind that controlled and fashioned Matter. The great distinction between these two systems is, that the Fire transforms itself, the *Nous* transforms something which is radically different from itself. Both these conceptions were amalgamated by Empedocles. He taught that Love was the creative power. Wherever there is a mixture of different elements Love is exerted.

Here we see the Desire of Heraclitus sublimed into its highest expression, and the *Nous* of Anaxagoras reduced to its moral expression, Love. The difficulties of the Heraclitean doctrine, namely, as to how Fire can ever become anything *different* from Fire, are avoided by the adoption of the Anaxagorean dualism; while the difficulties of the Anaxagorean doctrine, namely, as to how the great Arranger was moved and incited to arrange the primary elements, are in some measure avoided by the natural desire of Love (Aphrodite).

But there was a difficulty still to be overcome. If Love was the creator, that is, the Mingler, what caused separation? To explain

this, he had recourse to Hate. As the perfect state of supramundane existence was Harmony, the imperfect state of mundane existence was Discord. Love was, therefore, the Formative Principle, and Hate the Destructive. Hence he said that

'All the members of God war together, one after the other.'

This is but the phrase of Heraclitus, 'Strife is the parent of all things.' It is nevertheless most probable that Empedocles regarded Hate as only a mundane power, as only operating on the theatre of the world, and nowise disturbing the abode of the Gods.* For, inasmuch as Man is a fallen and perverted God, doomed to wander on the face of the earth, sky-aspiring, but sense-clouded; so may Hate be only perverted Love, struggling through space. Does not this idea accord with what we know of his opinions? His conception of God, that is, of the One, was that of a 'sphere in the bosom of harmony fixed, in calm rest, gladly rejoicing.' This quiescent sphere, which is Love, exists above and around the moved World. Certain points are loosened from the combination of the elements, but the unity established by Love continues. Ritter is convinced that 'Hate has only power over the smaller portion of existence, over that part which, disconnecting itself from the whole, contaminates itself with crime, and thereby devolves to the errors of mortals.'

Our account of Empedocles will be found to vary considerably from that in Aristotle; but our excuse is furnished by the great Stagirite himself, who is constantly telling us that Empedocles gave no reasons for his opinions. Moreover, Aristotle makes us aware that his own interpretation is open to question; for he says, that this interpretation can only be obtained by pushing the premises of Empedocles to their legitimate conclusions; a process which destroys all historical integrity, for what thinker *does* push his premises to their utmost limits?

§ IV. Democritus.

The laughing Philosopher, the traditional antithesis to Heraclitus, was born at Abdera (the new settlement of the Teians after their abandonment of Ionia), in the 80th Olympiad (B. C. 460). His claim to the title of Laugher, ὁ γελασῖνος, has been disputed, and by moderns generally rejected. Perhaps the native stupidity of his countrymen, who were renowned for abusing the privilege of being

* An opinion subsequently put forth by Plato in the *Phædrus*.

stupid, afforded him incessant matter for laughter. Perhaps he was by nature satirical, and thought ridicule the test of truth. He was of a noble and wealthy family, so wealthy that it entertained Xerxes at Abdera. Xerxes in recompense left some of his Magi to instruct the young Democritus. Doubtless it was their tales of the wonders of their native land, and the deep unspeakable wisdom of their priests, which inspired him with the passion for travel. 'I, of all men,' he says, 'of my day, have travelled over the greatest extent of country, exploring the most distant lands; most climates and regions have I visited, and listened to the most experienced and wisest of men; and in the calculations of line-measuring no one hath surpassed me, not even the Egyptians, amongst whom I sojourned five years.' In travel he spent his patrimony; but he exchanged it for an amount of knowledge which no one had previously equalled. The Abderites, on his return, looked on him with vague wonder. The sun-burnt traveller brought with him knowledge which, to them, must have appeared divine. He exhibited a few samples of his lore, foretold unexpected changes in the weather, and was at once exalted to the summit of that power to which it is a nation's pride to bow. He was offered political supremacy, but wisely declined it.

It would be idle to detail here the various anecdotes which tradition hands down respecting him. They are mostly either impossible or improbable. That, for instance, of his having put out his eyes with a burning-glass, in order that he might be more perfectly and undisturbedly acquainted with his reason, is in violent contradiction to his theory of the eye being one of the great inlets to the soul. Tradition is less questionable in its account of his having led a quiet sober life, and of his dying at a very advanced age. More we cannot credit.

Respecting his Philosophy there is some certain evidence; but it has been so variously interpreted, and is in many parts so obscure, that historians have been at a loss to give it its due position in relation to other systems. Reinhold, Brandis, Marbach, and Hermann view him as an Ionian; Buhle and Tennemann, as an Eleatic; Hegel, as the successor of Heraclitus, and the predecessor of Anaxagoras; Ritter, as a Sophist; and Zeller, as the precursor of Anaxagoras. Of all these attempts at classification, that by Ritter seems to me the worst. Because Democritus has an occasional phrase implying great vanity—and those mentioned by Ritter seem to us to imply nothing of the kind—he is said to be a Sophist!

Democritus is distinguished from the Ionians by the denial of all sensible *quality* to the primary elements; from the Eleatics by his affirmation of the existence of a multiplicity of elements; from Heraclitus on the same ground; from Anaxagoras, as we shall see presently; and from Empedocles, by denying the Four Elements, and the Formative Love. All these differences are radical. The resemblances, such as they are, may have been coincidences, or derived from one or two of the later thinkers: Parmenides and Anaxagoras, for example.

What did Democritus teach? This question we will endeavour to answer somewhat differently from other historians; but our answer shall be wholly grounded on precise and certain data, with no other originality than that of developing the system from its central principle.

To commence with Knowledge, and with the passage of Aristotle, universally accredited though variously interpreted: 'Democritus says, that either nothing is true, or what is true is not evident to us. Universally, in his system, the sensation constitutes the thought, and as at the same time it is but a change [in the sentient being], the sensible phenomena (*i. e. sensations*) are of necessity true.'* This pregnant passage means, I think, that sensation, inasmuch as it is sensation, must be true: that is, true *subjectively*; but sensation, inasmuch as it is sensation, cannot be true *objectively*. M. Renouvier thinks that Democritus was the first to introduce this distinction; but our readers will remember that it was the distinction established by Anaxagoras. Sextus Empiricus quotes the very words of Democritus: 'The sweet exists only *in form*, the bitter *in form*, the hot *in form*, the cold *in form*, colour *in form*; but in *causal reality* (*αἰτίῃ*)† only atoms and space exist. The sensible things which are supposed by opinion to exist have no real existence, but only atoms and space exist.'‡ When he says that sweetness, heat, colour, etc., exist *in form* only, he means that they are *sensible images constantly emanating from things*; a notion we shall explain presently. A little further on, Sextus reports the opinion, that we

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* Ἤτοι οὐθὲν εἶναι ἀληθὲς ἢ ἡμῖν γ' ἄδηλον. Ὅλως δὲ διὰ τὸ ὑπολαμβάνειν φρόνησιν μὲν τὴν αἴσθησιν ταύτην δ' εἶναι ἀλλοίωσιν, τὸ φαινόμενον κατὰ τὴν αἴσθησιν ἐξ ἀνάγκης ἀληθὲς εἶναι.—*Metaph.* iv. 5.

† Modern editors read *ἐτεῇ*, 'in reality.' We are inclined however to preserve the old reading, as more antithetical to *νόμῳ*.

‡ *Adv. Mathem.* vii. 163.

only perceive that *which falls in upon us* according to the disposition of our bodies; all else is hidden from us.

Neither Condillac nor Destutt de Tracy has more distinctly identified sensation and thought, than in the above passages. But Democritus does so in the spirit of Kant rather than that of Condillac; for, although with the latter he would say, 'Penser, c'est sentir,' yet he would with the former draw the distinction between phenomenal and noumenal perception.

But did sensation constitute all knowledge? Was there nothing to guide man but the reports of his senses? Democritus said there was *Reflection*.*

This Reflection was not the source of absolute truth, but fulfilled a *controlling* office, and established certitude, as far as there could be certitude in human knowledge. And the existence of this Reflection was asserted very much in the style of the celebrated addition to the aphorism, 'Nothing is in the Mind which was not previously in the Senses,' when Leibnitz added, 'except the Mind itself.' Democritus, aware that most of our conceptions are derived through the senses, was also aware that many of them were utterly independent, and in defiance of the Senses. Thus the 'infinitely small' and the 'infinitely great' escape Sense, but are affirmed by Reflection. So also the *atoms* which his Reason told him were the primary elements of things, he could never have known by Sense.

Thus far we have seen Democritus only as the inheritor of Anaxagoras; but the epoch we are now considering was distinguished by the greater attention bestowed on the origin of knowledge, and we may reasonably expect that Democritus had devoted considerable thought to the subject, and had originated some view of his own.

He was not content with the theory of Anaxagoras. There were difficulties which remained unsolved by it; which, indeed, had never been appreciated. This was the grand problem Democritus set himself to solve: *How do we perceive external things?* It is no answer to say that we perceive them by the senses. This is no better an explanation than that of the occult quality of opium, given by Molière's physician: 'L'opium endormit parce qu'il a une vertu soporifique.' The question arises:—*How is it that the senses perceive?*

No one had asked this question; to have asked it, was to form an

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* Διάνοια: etymology, no less than psychology, justifies this translation.

era in the history of Philosophy. Men began by reasoning on the reports of the senses, unsuspicious of error: when they saw anything, they concluded that what they saw existed, and existed *as* they saw it. Afterwards came others who began to question the accuracy of the senses. Lastly, came those who denied that accuracy altogether, and pronounced the reports to be mere delusions. Thus the question forced itself on the mind of Democritus—In what manner could the senses perceive external things? Once settle the *modus operandi*, and then the real efficacy of the senses may be estimated.

The hypothesis by which he attempted to explain perception was both ingenious and bold; and many centuries elapsed before a better one was suggested. He supposed that all things were constantly throwing off images of themselves (εἴδωλα), which, after assimilating to themselves the surrounding air, enter the soul by the pores of the sensitive organ. The eye, for example, is composed of aqueous humours; and water sees. But how does water see? It is diaphanous, and receives the image of whatever is presented to it.

This is a very rude and material hypothesis; but did not philosophers, for centuries, believe that their senses received *impressions* of things? and did they not suppose that *images* of things were reflected in the mind? This latter hypothesis is, perhaps, less obviously fantastic and gratuitous; but it is also less tenable; for how is it that the mind becomes a mirror reflecting the images? The hypothesis stands as much in need of explanation as the phenomenon it pretends to explain.

The hypothesis of Democritus, once admitted, serves its purpose; at least, to a considerable extent. Only the external surface of a body is thrown off in the shape of an εἴδωλον or *image*, and even that only imperfectly and obscurely. The figure thrown off is not a perfect image of the object throwing it off. It is only an image of the external form, and is subject to variations in its passage to the mind. This being the case, the strictly *phenomenal* nature of all knowledge is accurately exhibited. The idols or images, being themselves imperfect, our knowledge is necessarily imperfect.

With this theory of knowledge how could he answer the other, greater, question of Creation? It is said that he rejected The One of the Eleatics, The Four of Empedocles, and the *Homœomeriæ* of Anaxagoras, and declared *Atoms*, invisible and intangible, to be the primary elements; and that all things were but modes of one of the triple arrangements, namely, *configuration, combination*, and *position*. The atom, being indivisible, is necessarily *one*; and, being

one, is necessarily self-existent. By this hypothesis, therefore, Democritus satisfied the demands of those who declared that the self-existent must be One; and of those who declared that there were many things existing, and that the One could never be more than the One, never become the Many. He amalgamated the Ionian and Eleatic schools in his speculation, correcting both. He, doubtless, derived this idea from the *homœomeriæ* of Anaxagoras; or, as those who place Anaxagoras later than Democritus would say, originated this idea. It becomes a question, therefore, which of these speculations bears the impress of greater maturity. On this question we cannot hesitate to pronounce. The idea of *homœomeriæ* betrays its more primitive nature in this: it attributes *positive* qualities to atoms, which qualities are not changed or affected by combination or arrangement. The idea of the *atom* divested of all quality, and only assuming that quality as phenomenal when in combination with other atoms, and changing its quality with every change of combination, is indubitably a far more scientific speculation; it is also obviously later in point of development.

From the axiom that only 'like can act upon like,' Anaxagoras formed his *homœomeriæ*. Democritus accepted the axiom, but gave it a wider application. If only like can act upon like, said he, then must all things be alike *in esse;* and the only differences are those of phenomena, *i.e.* of manifestation; these depend on combination and arrangement.

Atomism is homœomerianism stripped of qualities. It is therefore the system of Anaxagoras greatly improved.

The Atomism of Democritus has not been sufficiently appreciated as a speculation. It is one of the profoundest yet reached by human subtlety. Leibnitz, many centuries afterwards, was led to a doctrine essentially similar; his celebrated 'Monadologie' is but Atomism, with a new terminology. Leibnitz called his Monad a *force,* which to him was the *prima materia.* So also Democritus denied that atoms had any weight; they had only force, and it was the impulsion given by superior force which constituted weight. It is worthy of remark that not only did these thinkers concur in their doctrine of atomism, but also, as we have seen, in their doctrine of the origin of knowledge: a coincidence which gives weight to the supposition that in both minds one doctrine was dependent on the other.

From what has already been said, the reader may estimate Ritter's assertion, that it would be in vain to seek for any profounder view

in the theory of Democritus than that common to all mechanical physicists who sought to reduce everything to mathematical conceptions: an assertion as preposterous as that which follows it, namely, that Democritus arrived at his atomic theory in the same way as modern physicists,—from a bias for the mechanical consideration of Nature. Ritter here contradicts himself. Having first declared that there was nothing in the Democritian theory but what the Ionians had previously discovered, he next declares that this theory is the same as that of the modern atomic theory. We are puzzled to which decision we shall award the palm of historical misconception. The modern atomic theory is the *law of definite proportions;* the ancient theory is merely the *affirmation of indefinite combinations.* Between these two conceptions there is precisely the difference between Positive Science and Philosophy. Instead of being similar conceptions, they were neither arrived at in the same way, nor have they the same signification.

Attempts have been made, from certain expressions attributed to Democritus, to deduce an Intelligence, somewhat similar to that in the Anaxagorean doctrine, as the Formative Principle. But the evidence is so small and so questionable, that we refrain from pronouncing on it. Certain it is that he attributed the formation of things to Destiny; but whether that Destiny was intelligent or not is uncertain.

In conclusion, we may observe that his system was an advance on that of his predecessors. In the two great points of psychology and physics, which we have considered at length, it is impossible to mistake a very decided progress, as well as the opening of a new line in each department.

THIRD EPOCH.

INTELLECTUAL CRISIS.—THE INSUFFICIENCY OF ALL ATTEMPTS TOWARDS A SOLUTION OF THE PROBLEM OF EXISTENCE, AS WELL AS THAT OF KNOWLEDGE, PRODUCES THE SOPHISTS.

CHAPTER I.

THE SOPHISTS.

§ I. What were they?

THE Sophists are a much calumniated race. That they should have been so formerly is not surprising; that they should be so still, is an evidence that historical criticism is yet in its infancy. In raising our voices to defend them we are aware of the paradox; but looked at nearly, the paradox is greater on the side of those who credit and repeat the traditional account. In truth, we know of few charges so unanimous yet so paradoxical as that brought against the Sophists.* It is as if mankind had consented to judge of Socrates by the representation of him in *The Clouds*. The caricature of Socrates by Aristophanes is quite as near the truth as the caricature of the Sophists by Plato;† with this difference, that in the one case it was inspired by political, in the other by speculative antipathy.

On the Sophists we have only the testimony of antagonists; and the history of mankind clearly proves that the enmities which

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* It is proper to state that the novel view of the position and character of the Sophists advanced in this Chapter was published five years before the admirable Chapter of Mr. Grote's *History of Greece*, wherein that erudite and thoughtful writer brings his learning and sagacity to the most thorough elucidation of the question it has yet received. In claiming priority in this point of historical criticism, it is right for me to acknowledge that Mr. Grote substantiates his view with overwhelming force of argument and citation; and in revising the present Chapter I have been much indebted to his criticisms and citations.

† See in particular that amusing dialogue the *Euthydemus*, which is quite as exaggerated as Aristophanes.

arise from difference of race and country are feeble compared with the enmities which arise from difference of creed: the former may be lessened by contact and intercourse; the latter are only aggravated. Plato had every reason to dislike the Sophists and their opinions; he therefore lost no occasion of ridiculing the one and misrepresenting the other. And it is worthy of especial remembrance that this hostility was peculiarly Platonic, and *not* Socratic; for, as Mr. Grote reminds us, there is no such marked antithesis between Socrates and the Sophists in the biographical work of Xenophon. Plato however, and those who followed Plato, misrepresented the Sophists, as in all ages antagonists have misrepresented each other.

The Sophists were wealthy; the Sophists were powerful; the Sophists were dazzling, rhetorical, and not profound. Interrogate human nature—above all, the nature of philosophers—and ask what will be the sentiment entertained respecting these Sophists by their rivals. Ask the solitary thinker what is his opinion of the showy, powerful, but shallow rhetorician who usurps the attention of the world. The man of convictions has at all times a superb contempt for the man of mere oratorical or dialectical display. The thinker knows that the world is ruled by Thought; yet he sees Expression gaining the world's attention. He knows perhaps that he has within him thoughts pregnant with human welfare; yet he sees the giddy multitude intoxicated with the enthusiasm excited by some plausible fallacy, clothed in enchanting language. He sees through the fallacy, but cannot make others as clear-sighted. His warning is unheeded; his wisdom is spurned; his ambition is frustrated: the popular Idol is carried onward in triumph. The neglected thinker would not be human if he bore this with equanimity. He does not. He is loud and angry in lamenting the fate of a world that can so be led; loud and angry in his contempt of one who could so lead it. Should he become the critic or historian of his age, what exactness ought we to expect in his account of the popular idol?

Somewhat of this kind was the relation in which the Sophists and Philosophers stood to each other.

The Sophists were hated by some because they were powerful, by others because shallow; and were misrepresented by all. In later times their antagonism to Socrates has brought them ill-will; and this ill-will is strengthened by the very prejudice of the name. Could a Sophist be other than a cheat and a liar? As well ask, could a Devil be other than Evil? In the name of Sophist all odious

qualities are implied, and this implication perverts our judgment. Call the Sophists Professors of Rhetoric, which is their truest designation, and then examine their history; it will produce a very different impression.

Much discussion has been devoted to the meaning of the word Sophist, and to the supposed condemnation it everywhere carried. 'A Sophist, in the genuine sense of the word, was a wise man, a clever man, one who stood prominently before the public as distinguished for intellect or talent of some kind. Thus Solon and Pythagoras are both called Sophists; Thamyras, the skilful bard, is called a Sophist; Socrates is so denominated, not merely by Aristophanes, but by Æschines. Aristotle himself calls Aristippus, and Xenophon calls Antisthenes, both of them disciples of Socrates, by that name. Xenophon in describing a collection of instructive books calls them the writings of the old poets and Sophists. Plato is alluded to as a Sophist even by Isocrates; Isocrates himself was harshly criticized as a Sophist, and defends both himself and his profession. Lastly Timon, who bitterly satirized all the philosophers, designated them all, including Plato and Aristotle, by the general name of Sophists.'* This proves the vagueness with which the term was employed: a like discrepancy might be detected in the modern use of the word 'metaphysician,' which is a term of honour or reproach according to the speaker. Zeller says that the specific name of Sophist at first merely designated one who taught philosophy for pay. The philosophy might be good or bad; the characteristic designated by the epithet Sophistical was its demand of money-fees. The narrower meaning was given it by Plato and Aristotle.† It matters little however what was the meaning attached to the name. Even were it proved that 'Sophist' was as injurious in those days as 'Socialist' in our own, it would no more prove that the Sophists really taught the doctrines attributed to them than the mingled terror and detestation with which 'Socialist doctrines' are described in almost all modern journals, pamphlets, speeches, and reviews, prove that the Socialists really teach what is there imputed to them.

We said it was a paradox to maintain that the Sophists really promulgated the opinions usually attributed to them; and by this we mean that not only are some of those opinions nothing but caricatures of what was really maintained, but also that in our interpretation of the others we grossly err, by a confusion of Christian

* Grote, viii. 480.

† *Philosophie der Griechen*, erster Theil, 1856, p. 750.

with Heathen views of morality. Moderns cannot help regarding as fearfully immoral, ideas which by the Greeks were regarded as moral, or at least as not disreputable. For instance: the Greek orators are always careful to impress upon their audience, that in bringing a charge against any one they are actuated by the strongest personal motives; that they have been injured by the accused; that they have good honest hatred as a motive for accusing him. Can anything be more opposite to Christian feeling? A Christian accuser is just as anxious to extricate himself from any charge of being influenced by personal considerations, as the Greek was of making the contrary evident. A Christian seeks to place his motive to the account of abstract justice; and his statement would be received with great suspicion were it known that a personal feeling prompted it. The reason of this difference is that the Christian Ethics do not countenance vengeance; the Greek Ethics not only countenanced vengeance, but very much reprobated *informers*: consequently, whoever made an accusation had to clear himself from the ignominy of being an informer, and to do so he showed his personal motives.

This example will prepare the reader to judge, without precipitancy, the celebrated boast attributed to the Sophists, that they could 'make the worse appear the better reason.' This was said to be the grand aim of their endeavours. This was called their avowed object. To teach this art, it is said, they demanded enormous sums; to learn it enormous sums were readily given, and given by many.

These assertions are severally false. We will take the last first. It is not true that enormous sums were demanded. Isocrates affirms that their gains were never very high, but had been maliciously exaggerated, and were very inferior to the gains of dramatic actors. Plato, a less questionable authority on such a point, makes Protagoras describe his system of demanding remuneration: 'I make no stipulation beforehand; when a pupil parts from me, I ask from him such a sum as I think the time and the circumstances warrant; and I add that if he deems the demand too great, he has only to make up his own mind what is the amount of improvement which my company has procured to him, and what sum he considers an equivalent for it. I am content to accept the sum so named by himself, only requiring him to go into a Temple and make oath that it is his sincere belief.' Plato objects to this, and to every other mode of 'selling wisdom;' but, as Mr. Grote remarks, 'such is not the way in which the corruptors of mankind go to work.'

But let us waive the question of payment, to consider the teaching paid for. The Sophists, it is said, and believed, boasted that they could teach the art of making the worse appear the better reason; and in one sense this is true; but understanding this art *as moderns have understood it*, and thereby forming our notion of the Sophists, let us ask, Is it credible that such an art should have been avowed, and, being avowed, should be rewarded, in a civilized state? Let us think, for an instant, of what are its moral, or rather its immoral, consequences. Let us reflect how utterly it destroys all morality; how it makes the very laws but playthings for dialectical subtlety. Then let us ask whether, as we understand it, any State could have allowed such open blasphemy, such defiance of the very fundamental principle of honesty and integrity, such demolition of the social contract.

Could any State do this? and was Athens that State? We ask the reader to realize for himself some notion of the Athenians as citizens, not merely as statues; to think of them as human beings, full of human passions, not simply as architects, sculptors, poets, and philosophers. Having done this, we ask him whether he can believe that these Athenians would have listened to a man proclaiming all morality a farce, and all law a quibble—proclaiming that for a sum of money he could instruct any one how to make an unjust cause appear a just one? Would not such a proclamation be answered with a shout of derision, or of execration, according to the belief in his sincerity? Could any charlatan, in the corruptest age, have escaped lapidation for such effrontery? Yet the Sophists were wealthy, by many greatly admired, and were selected as ambassadors on very delicate missions. They were men of splendid talents, of powerful connections. Around them flocked the rich and noble youth of every city they entered. They were the intellectual leaders of their age. If they had been what their adversaries describe them, Greece could only have been an earthly Pandemonium, where Belial was King.

To believe this is beyond our power. Indeed such a paradox it would be frivolous to refute, had it not been maintained for centuries. Some have endeavoured to escape it by maintaining that the Sophists were held in profound contempt; and certain passages are adduced from Plato in proof thereof. But the fact appears to us to be the reverse of this. The wealth and power of the Sophists—the very importance implied in Plato's constant polemic against them—prove that they were not objects of contempt. Objects of aversion

they might be to one party: the successful always are. Objects of contempt they might be, to some sincere and profound thinkers. The question here however is not one relating to individuals, but to the State. It is not whether Plato despised Gorgias, but whether Athens allowed him to teach the most unblushing and undisguised immorality. There have been daring speculators in all times. There have been men shameless and corrupt. But that there has been any speculator so daring as to promulgate what he knew to be grossly immoral, and so shameless as to avow it, is in such contradiction to our experience of human nature as at once to be rejected.*

It is evident, therefore, that in teaching the art of 'making the worse appear the better reason,' the Sophists were not guilty of anything held to be reprehensible; however serious thinkers, such as Plato and Aristotle, might detest the shallow philosophy from which it sprang.

But if this art was not reprehensible, except to severe minds, such as Plato and Aristotle, it is clear that it could not have been the art which its antagonists and defamers have declared it to be. If, as we have shown, universal human nature would have rebelled against a teaching which was avowedly immoral, the fact that the Sophists were not stoned, but were highly considered and well paid, is proof that their teaching was either not what we are told it was, or that such teaching was not considered immoral by the Greeks. Both of these negatives will be found true. The teaching of the Sophists was demonstrably *not* what is usually attributed to them, and what they *did* teach was very far from being considered as immoral. Let us consider both these points.

In the first place Mr. Grote has shown beyond dispute that the Sophists had *no* doctrine in common; they formed no sect or school of thought, such as modern Germans indicate under the name of *Die Sophistik*. There never was a *Sophistik*. Each teacher had his own doctrinal views, and was not more bound to the opinions of the others than a modern Barrister is bound to share the theology of the Bar, or than a modern teacher of Elocution is bound to vote on the same side with all other professors. No

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* We are told by Sextus that Protagoras was condemned to death by the Athenians because he professed himself unable to say whether the Gods existed, or what they were, owing to the insufficiency of knowledge. Yet the Athenians are supposed to have tolerated the Sophists as they are understood by moderns!

sooner is this fact apprehended, than the absurdity of attributing to 'the Sophists' opinions expressed by one Sophist, and that too in a caricature by Plato, is at once apparent. Moreover the absurdity of talking of the 'sophistical *doctrine*' becomes apparent, and we are forced to speak only of the 'sophistical *art*,' reserving for any special animadversion the special name of the offending sinner.

The Sophists taught the art of disputation. The litigious quibbling nature of the Greeks was the soil on which an art like that was made to flourish. Their excessive love of law-suits is familiar to all versed in Grecian history. The almost farcical representation of a lawsuit given by Æschylus in his otherwise awful drama, *The Eumenides*, shows with what keen and lively interest the audience witnessed even the very details of litigation. For such an appetite food would not long be wanting. Corax and Tisias wrote precepts of the art of disputation. Protagoras followed with dissertations on the most remarkable points of law; and Gorgias composed a set accusation and apology for every case that could present itself. People, in short, were taught to be their own advocates.

This was by no means an immoral art. If it *might* or *did* lead to immorality, few Greeks would have quarrelled with an art so necessary. 'Without some power of persuading or confuting, of defending himself against accusations, or, in case of need, accusing others, no man could possibly hold an ascendant position. He had probably not less need of this talent for private informal conversations to satisfy his own political partisans, than for addressing the public assembly formally convoked. Even commanding an army or a fleet, without any laws of war or habit of discipline, his power of keeping up the good-humour, confidence, and prompt obedience of his men, depended not a little on his command of speech. Nor was it only to the leaders in political life that such an accomplishment was indispensable. In all democracies, and probably in several Governments which were not democracies but oligarchies of an open character, the courts of justice were more or less numerous, and the procedure oral and public; in Athens especially the Dicasteries were both very numerous and were paid for attendance. Every citizen had to go before them in person, without being able to send a paid advocate in his place, if he either required redress for wrong offered to himself, or was accused of wrong by another. There was no man therefore who might not be cast or condemned, or fail in his own suit, even with right on his side, unless he possessed some power

of speech to unfold his case to the Dicasts, as well as to confute the falsehoods and disentangle the sophistry of an opponent. To meet such liabilities, from which no citizen, rich or poor, was exempt, a certain training in speech became not less essential than a certain training in arms.'* Thus was it that even quibbling ingenuity, 'making the worse appear the better reason,' became a sort of virtue, because it was obtained only by that mastery over argument which was the Athenian's ambition and necessity. *We* can send a paid advocate to quibble for us, and do not therefore need such argumentative subtlety. But let us ask, are barristers pronounced the 'corruptors of mankind,' and is their art called the art of 'making the worse appear the better reason,' as if that, and that alone, were the purport of all pleading? Yet, in defending a criminal, does not every barrister exert his energy, eloquence, subtlety, and knowledge 'to make the worse appear the better reason'? Do we reprobate Sergeant Talfourd or Sir Frederick Thesiger, if they succeed in gaining their client's cause, although that cause be a bad one? On the contrary, the badness of the cause makes the greatness of the triumph.

Now let us suppose Sergeant Talfourd to give lessons in forensic oratory; suppose him to announce to the world, that for a certain sum he would instruct any man in the whole art of exposition and debate, of the interrogation of witnesses, of the tricks and turning-points of the law, so that the learner might become his own advocate: this would be contrary to legal etiquette; but would it be immoral? Grave men might, perhaps, object that Mr. Talfourd was offering to make men cheats and scamps, by enabling them to make the worse appear the better reason. But this is a consequence foreseen by grave men, not acknowledged by the teacher. It is doubtless true that owing to oratory, ingenuity, and subtlety, a scamp's cause is sometimes gained; but it is also true that many an honest man's cause is gained, and many a scamp frustrated, by the same means. If forensic oratory does sometimes make the worse appear the better reason, it also makes the good appear in all its strength. The former is a necessary evil, the latter is the very object of a court of justice. 'If,' says Callicles, in defence of Gorgias, to Socrates, 'any one should charge you with some crime which you had not committed, and carry you off to prison, you would gape and stare, and would not know what to say; and, when brought to trial, however

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* Grote, viii. 463–4.

contemptible and weak your accuser might be, if he chose to indict you capitally, you would perish. Can this be wisdom, which, if it takes hold of a gifted man, destroys the excellence of his nature, rendering him incapable of preserving himself and others from the greatest dangers, enabling his enemies to plunder him of all his property, and reducing him to the situation of those who, by a sentence of the Court, have been deprived of all their rights?'

If it be admitted that Sergeant Talfourd's instruction in forensic oratory would not be immoral, however unusual, we have only to extend the sphere and include politics, and represent to ourselves the democratic state of Athens, where demagogues were ever on the alert, and we shall be fully persuaded that the art of the Sophists was not considered immoral; and, as further proof, we select the passage in Plato's *Republic*, as coming from an unexceptionable source.

Socrates, speaking of the mercenary teachers whom the people call Sophists, says:—'These Sophists teach them only the *things which the people themselves profess in assemblies:* yet this they call wisdom. It is as if a man had observed the instincts and appetites of a great and powerful beast, in what manner to approach it, how or why it is ferocious or calm, what cries it makes, what tones appease and what tones irritate it; after having learnt all this, and calling it wisdom, commenced teaching it without any knowledge of what is good, just, shameful and unjust among these instincts and appetites; but calling that good which flatters the animal, and that bad which irritates it; because he knows not the difference between what is good in itself and that which is only relatively good.'*

There is the usual vein of caricature in this description (which is paraphrased in the *Quarterly Review*,† and there given as if the undoubted and unexaggerated doctrines of the Sophists); but it very distinctly sets forth the fact that the Sophists did not teach anything contrary to public morals, however their art may have offended abstract morality. Indeed the very fact of their popularity would prove that they did but respond to a public want; and because they responded to this want they were paid by the public in money. Plato constantly harps upon their being mercenaries; but he was wealthy, and could afford such sarcasms. The Greeks paid their Musicians, Painters, Sculptors, Physicians, Poets, and Teachers in Schools; why therefore should they not pay their Philosophers?

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* Plato, *Rep.* vi. 291.

† No. xlii. p. 288.

Zeno of Elea was paid; so was Democritus; but both of these have been sometimes included amongst the Sophists. We see nothing whatever more derogatory in the acceptance of money by Philosophers than by Poets; and we know how the latter stipulated for handsome payment.

Having done our best to show that the 'Sophistical art'—that alone which the Sophists had in common—was not immoral, or at any rate was not regarded as immoral by the Greeks, we will now see how the case stands with respect to the old accusation of their having corrupted the Athenian youth, and of their doctrines being essentially corrupting.

That the Athenians did not consider the Sophists as corruptors of youth is unequivocally shown in two facts: they did not impeach the Sophists, and they *did* impeach Socrates. When Anaxagoras and Protagoras 'sapped the foundations of morality' by expressing opinions contrary to the religion of Athens, they were banished; but who impeached Gorgias, or Hippias, or Prodicus?

The art however may have been essentially corrupting, although to contemporaries it did not appear so. We believe it was so, if it is to be made responsible for all the consequences which can logically be deduced from it. But 'logical consequences' are unjust standards. Men are not responsible for what others may consider their doctrines 'lead to.' It was on the ground of such remote deduction that Socrates was put to death; and on such ground the Sophists have been the byeword of reproach. Mr. Grote grapples directly with the fact where he declares Athens at the close of the Peloponnesian war was not more corrupt than Athens in the days of Miltiades and Aristides; and had it been more corrupt, we should demand quite other evidence than that usually alleged, before believing the corruption due to the Sophists.

Why then did Plato speak of the Sophists with so much asperity? Why did he consider their teaching so dangerous? Because he differed from them *in toto*. He hated them for the same reason that Calvin hated Servetus; but having a more generous nature than Calvin, his hatred of their doctrines did not assume so disgraceful a form. If his allegations are to condemn the Sophists, they must equally condemn all the public men of that day. 'Whoever will read either the *Gorgias* or the *Republic*, will see in how sweeping and indiscriminate a manner he passes the sentence of condemnation. Not only the Sophists and all the Rhetors, but all the Musicians and either Dithyrambic or Tragic Poets, all the Statesmen

past as well as present, not excepting even the great Pericles, receive from his hand one common stamp of dishonour.'* But so far is he from considering the Sophists as peculiar corruptors of Athenian morality 'that he distinctly protests against that supposition in a remarkable passage of the *Republic*. It is, he says, the whole people or the society, with its established morality, intelligence, and tone of sentiment, which is intrinsically vicious; the teachers of such a society must be vicious also, otherwise their teaching would not be received; and even if their private teaching were ever so good, its effect would be washed away, except in some few privileged natures, by overwhelming influences.'†

The truth is that, inasfar as the Sophists taught any doctrine at all, their doctrine was ethical; and to suppose men teaching immoral ethics, *i.e.* systems of morality known by them to be immoral, is absurd. To clear up this point we must endeavour to ascertain what that doctrine was.

Plato's account is on the face of it a caricature, since it is impossible that any man should have seriously entertained such a doctrine. What Protagoras and Gorgias thought is not given, but only a misrepresentation of what they thought. Plato seizes hold of one of their doctrines, and, *interpreting* it in his own way, makes it lead to the most outrageous absurdity and immorality. This is as if Berkeley's doctrine had been transmitted to us by Beattie. Berkeley, it is well known, denied the existence of the external world, resolving it into a simple world of ideas. Beattie taunted him with not having followed out his principles, and with not having walked over a precipice. This was a gross misrepresentation: an *ignoratio elenchi;* Beattie misunderstood the argument, and drew conclusions from his misunderstanding. Now, suppose him to have written a dialogue on the plan of those of Plato: suppose him making Berkeley expound his argument in the way he (Beattie) interpreted it, with a flavour of exaggeration for the sake of effect, and of absurdity for the sake of easy refutation: how would he have made Berkeley speak? Somewhat thus:—'Yes, I maintain that there is no such external existence as that which men vulgarly believe in. There is no world of matter, but only a world

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* Grote, viii. 537.

† *Ibid.*, p. 59. The passage referred to is *Repub.* vi. 492 (page 388, ed. Bekker), and the Sophists are mentioned by name as the teachers of whom it treats.

of ideas. If I were to walk over a precipice, I should receive no injury: it is only an ideal precipice.'

This is the interpretation of a Beattie; how true it is most men know: it is, however, quite as true as Plato's interpretation of the Sophists. From Berkeley's works we can convict Beattie. Plato we can convict from experience of human nature: experience tells us that no man, far less any set of men, could seriously, publicly, and constantly broach doctrines thought to be subversive of all morality, without incurring the heaviest penalties. To broach immoral doctrines with the faintest prospect of success, a man must do so in the name of rigid Morality. To teach immorality, and openly to avow that it is immoral, was, according to Plato, the office of the Sophists;* a statement which carries with it its own contradiction.

§ II. Protagoras.

Nothing can be more erroneous than to isolate the Sophists from previous teachers, as if they were no direct product of the speculative efforts which preceded them. They illustrate the crisis at which philosophy had arrived. They took the *negative*, as Socrates took the *positive* issue out of the dilemma.

Protagoras, the first who is said to have avowed himself a Sophist, was born at Abdera, where Democritus first noticed him as a porter, who showed great address in inventing the knot.† The consequence was that Democritus gave him instructions in Philosophy. The story is apocryphal, but indicates a connection to have existed between the speculations of the two thinkers. Let us suppose Protagoras to have accepted the doctrine of Democritus; with him to have rejected the unity of the Eleatics and to have maintained the existence of the Many. With this he also learned that thought is sensation, and that all knowledge is therefore phenomenal. There were two theories in the Democritean system which he could not accept, viz. the *Atomic* and *Reflective*. These two imply each other. Reflection is necessary for the idea of Atoms; and it is from the

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* This passage in the *Protagoras* is often referred to as a proof of the shamelessness of the Sophists, and sometimes of the ill-favour with which they were regarded. It is to us only a proof of Plato's tendency to caricature.

† What the precise signification of τύλη is we are unable to say. A porter's knot, such as is now used, is the common interpretation. Perhaps Protagoras had contrived a sort of wooden machine such as the glaziers use, and which is used by the porters in Greece and Italy to this day.

idea of Atoms not perceived by the sense, that the existence of Reflection is proved. Protagoras rejected the Atoms, and could therefore reject Reflection. He said that Thought was Sensation, and all knowledge consequently individual.

Did not the place of his birth no less than the traditional story lead one to suppose some connection with Democritus, we might feel authorized to adopt certain expressions of Plato, and consider Protagoras to have derived his doctrine from Heraclitus. He certainly resembles the last-named in the main results to which his speculations led him. Be that as it may, the fact is unquestionable, that he maintained the doctrine of Thought being identical with and limited by Sensation. Now, this doctrine implies that everything is true *relatively*—every sensation is a true sensation; and, as there is nothing but sensation, knowledge is inevitably fleeting and imperfect. In a melancholy mind, as in that of Heraclitus, such a doctrine would deepen sadness, till it produced despair. In minds of greater elasticity, in men of greater confidence, such a doctrine would lead to an energetic scepticism. In Protagoras it became the formula: 'Man is the measure of all things.'

Sextus Empiricus gives the psychological doctrine of Protagoras very explicitly; and his account may be received without suspicion. We translate a portion of it:—

'Matter, says Protagoras, is in a perpetual flux;* whilst it undergoes augmentations and losses, the senses also are modified, according to the age and disposition of the body. He said, also, that the reasons of all phenomena (*appearances*) resided in matter as *substrata* (τοὺς λόγους πάντων τῶν φαινομένων ὑποκεῖσθαι ἐν τῇ ὕλῃ); so that matter, in itself, might be whatever it appeared to each. But men have different perceptions at different times, according to the changes in the thing perceived. Whoever is in a healthy state perceives things such as they appear to all others in a healthy state, and *vice versâ*. A similar course holds with respect to different ages, as well as in sleeping and waking. Man is therefore the criterion of that which exists; all that is perceived by him exists, that which is perceived by no man does not exist.'†

Now, conceive men conducted by what they thought irresistible arguments to such a doctrine as the above, and then see how natu-

* Τὴν ὕλην ῥευστὴν εἶναι, an expression which, if not borrowed by Sextus from Plato, would confirm the conjecture above respecting Heraclitus, as the source of Protagoras's system.

† *Hypot. Pyrrhon.* p. 44.

rally all the scepticism of the Sophists flows from it. The difference between the Sophists and the Sceptics was this: they were both convinced of the insufficiency of all knowledge, but the Sceptics contented themselves with the conviction, while the Sophists, satisfied with the vanity of all endeavour to penetrate the mysteries of the universe, began to consider their relations to other men: they devoted themselves to politics and rhetoric.* If there was no possibility of Truth, there only remained the possibility of Persuasion. If one opinion was as true as another,—that is, if neither were true,—it was nevertheless desirable, for the sake of Society, that certain opinions should prevail; and, if Logic was powerless, Rhetoric was efficient. Hence Protagoras is made to say, by Plato, that the wise man is the physician of the soul: he cannot indeed induce truer thoughts into the mind, since all thoughts are equally true; but he can induce healthier and more profitable thoughts. He can in the same way heal Society, since by the power of oratory he can introduce good useful sentiments in the place of those base and hurtful.†

This doctrine may be false; but is it not a natural consequence of the philosophy of the epoch? It may be immoral; but is it necessarily the bold and shameless immorality attributed to the Sophists? To us it appears to be neither more nor less than the result of a sense of the radical insufficiency of knowledge. Protagoras had spent his youth in the study of philosophy; he had found that study vain and idle; he had utterly rejected it, and had turned his attention elsewhere. A man of practical tendencies, he wanted a practical result. Failing in this, he sought another path, firmly impressed with the necessity of having something more definite wherewith to enter the world of action. Plato could see no nobler end in life than that of contemplating Being,—than that of familiarizing the mind with the eternal Good, the Just, and the Beautiful,—of which all goodness, justice, and beautiful things, were the images. With such a view of life it was natural that he should despise the scepticism of the Sophists. This scepticism is clearly set forth in the following passage from the speech of Callicles, in Plato's *Gorgias*:—

'Philosophy is a graceful thing when it is moderately cultivated in youth; but, if any one occupies himself with it beyond the proper

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* See Plato's definition of the sophistical art, *Sophista*, p. 146.

† *Theætetus*, p. 228.

age, it ruins him; for, however great may be his natural capacity, if he philosophizes too long he must of necessity be inexperienced in all those things which one who would be great and eminent must be experienced in. He must be unacquainted with the laws of his country, and with the mode of influencing other men in the intercourse of life, whether private or public, and with the pleasures and passions of men; in short, with human characters and manners. And when such men are called upon to act, whether on a private or public occasion, they expose themselves to ridicule, just as politicians do when they come to your conversation, and attempt to cope with you in argument; for every man, as Euripides says, occupies himself with that in which he finds himself superior; that in which he is inferior he avoids, and speaks ill of it, but praises what he excels in, thinking that in doing so he is praising himself. The best thing, in my opinion, is to partake of both. It is good to partake of philosophy by way of education, and it is not ungraceful in a young man to philosophize. But, if he continues to do so when he grows older, he becomes ridiculous, and I feel towards him as I should towards a grown person who lisped and played at childish plays. When I see an old man still continuing to philosophize, I think he deserves to be flogged. However great his natural talents, he is under the necessity of avoiding the assembly and public places, where, as the poet says, men become eminent, and to hide himself, and to pass his life whispering to two or three striplings in a corner, but never speaking out anything great, and bold, and liberal.'

That Protagoras, no less than Prodicus,* was a teacher of excellent morality, if not of the highest abstract views of the Good, is clearly made out not only in Mr. Grote's work, but in that of Zeller, where the Sophists are unfavourably treated on the whole,† and is indeed supported by the testimony of Plato and Xenophon. The ethics of the Sophists may not have been of a very lofty kind, but they were considered, even by enemies, to be adapted to the exigencies of the day. They doubted the possibility of Philosophy;

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* Prodicus is specially excepted by Aristophanes in his sweeping condemnation of the Sophists; and indeed the author of the well-known parable, *The Choice of Hercules*, must command the respect even of antagonists.

† See *Philos. der Griechen*, i. 775. In one of his notes, Zeller alludes to Steinhart's doubt respecting the authorship of the Myth, attributed by Plato to Protagoras, as being 'quite worthy of Plato himself.' This is very characteristic of the ordinary tone of commentators, and we may well ask with Zeller, 'Aber warum soll er für Protagoras zu gut seyn?'

they were assured only of the advantage of Oratory. In their visits to various cities they could not fail to remark the variety of laws and ordinances in the different States. This variety impressed them with a conviction that there were no such things as Right and Wrong by nature, but only by convention. This, therefore, became a fundamental precept with them. It was but a corollary of their dogma respecting Truth. For man there was no Eternal Right because there was no Eternal Truth; *τὸ δίκαιον καὶ τὸ αἰσχρὸν οὐ φύσει ἀλλὰ νόμῳ*: law was but the law of each city. 'That which appears just and honourable to each city, is so *for that city*, as long as the opinion is entertained,' says Protagoras in the *Theætetus* (p. 229). This denial of abstract Truth and abstract Justice is easily pushed to absurd and immoral consequences; but we have no evidence that such consequences were maintained by the Sophists. Plato often judges them by such consequences; but independently of the want of any confidence in his representations as faithful, we can often detect in Plato himself evidences of the exaggeration of his general statements. Thus, he on various occasions makes the Sophists maintain that Might is Right. Moderns, who always accept him as positive testimony, have therefore unanimously repeated this statement. Yet, it is obvious that they could not have held this opinion except in a very qualified form. And, in the first Book of the *Republic*, Thrasymachus the Sophist is made to explain his meaning; namely, that Justice is the law ordained by the party which is strongest in the State. Thus, in a democracy the enactments of the people are the laws: these laws are for their advantage; therefore just. Now, in this admission, by Plato, of a qualification of the abstract formula, 'Might is Right,' we see evidence of that formula never having been promulgated by the Sophists; it was only an interpretation by Plato. What they meant was this: All law is but convention: the convention of each State is therefore just *for it*; and, inasmuch as any such convention must necessarily be ordained by the strongest party, *i. e.* must be the will of the many, so we may see that justice is but the advantage of the strongest.

The foregoing will, we trust, suffice to show that the tenets attributed to them by Plato, are often caricatures, and admit of very different explanation. Well might Gorgias exclaim, on reading the Dialogue which bears his name, 'I did not recognize myself. The young man, however, has great talent for satire.'

The Sophists were the natural production of the opinions of the

epoch. In them we see the first energetic protest against the possibility of metaphysical science. This protest however must not be confounded with the protest of Bacon—must not be mistaken for the germ of positive philosophy. It was the protest of baffled minds. The Philosophy of the day led to scepticism; but with Scepticism no energetic man could remain contented. Philosophy was therefore denounced, not because a surer, safer path of inquiry had been discovered, but because Philosophy was found to lead nowhither. The scepticism of the Sophists was a scepticism, with which no great speculative intellect could be contented. Accordingly with Socrates Philosophy again re-asserted her empire.

FOURTH EPOCH.

A NEW ERA OPENED BY THE INVENTION OF A NEW METHOD.

CHAPTER I.

SOCRATES.

§ I. The Life of Socrates.

WHILST the brilliant Sophists were reaping money and renown by protesting against Philosophy, and teaching the word-jugglery which they called Disputation and Oratory, there suddenly appeared amongst them a strange antagonist. He was a perfect contrast to them. They had slighted Truth; they had denied her. He had made her his soul's mistress; and, with patient labour, with untiring energy, did his large wise soul toil after perfect communion with her. They had deserted Truth for Money and Renown. He had remained constant to her in poverty. They professed to teach everything. He only knew that he knew nothing; and denied that anything could be taught. Yet he believed he could be of service to his fellow-men; not by teaching, but by helping them to learn. His mission was to examine the thoughts of others. This he humorously explained by reference to his mother's profession, namely that of a midwife. What she did for women in labour he could do for men pregnant with ideas. He was an accoucheur of ideas. He assisted ideas in their birth, and, having brought them into light, he examined them, to see if they were fit to live: if true, they were welcomed; if false, destroyed. And for this assistance he demanded no pecuniary recompense, but steadfastly refused every bribe of the kind.

He was the declared questioner of all men who were renowned for wisdom, or any intellectual eminence; and they were somewhat puzzled with their new antagonist. Who is he?—Socrates, the son of Sophroniscus. What does he?—Converse. For what purpose?—To expose error.

Some gorgeous Sophists, in their flowing robes, followed by

crowds of eager listeners, treated the poor and humbly-clad Socrates with ineffable contempt. He was rude and ungainly in his movements; unlike all respectable citizens in his habits. Barefoot, he wandered about the streets of Athens absorbed in thought; sometimes he stood still for hours, fixed in meditation. Every day he strolled into the market-place, and disputed with all who were willing. In appearance he resembled a Silenus. His flattened nose, with wide and upturned nostrils, his projecting eyeballs, his thick and sensual lips, his squab figure and unwieldy belly, were all points upon which ridicule might fasten. Yet when this Silenus spoke there was a witchery in his tongue which fascinated those whom his appearance had disgusted; and Alcibiades declared that he was forced to stop his ears and flee away, that he might not sit down beside Socrates and 'grow old in listening to his talk.' Let us hear Alcibiades describe him.*

'I will begin the praise of Socrates by comparing him to a certain statue. Perhaps he will think that this statue is introduced for the sake of ridicule; but I assure you that it is necessary for the illustration of truth. I assert, then, that Socrates is exactly like those Silenuses that sit in the sculptors' shops, and which are carved holding flutes or pipes, but which, when divided in two, are found to contain withinside the images of the gods. I assert that Socrates is like the Satyr Marsyas; that your form and appearance are like these Satyrs, I think that even you will not venture to deny; and how like you are to them in all other things, now hear. Are you not scornful and petulant? If you deny this, I will bring witnesses. Are you not a piper, and far more wonderful a one than he? for Marsyas, and whoever now pipes the music that he taught, that music which is of heaven, and described as being taught by Marsyas, enchants men through the power of the mouth; for, if any musician, be he skilful or not, awakens this music, it alone enables him to retain the minds of men, and from the divinity of its nature makes evident those who are in want of the Gods and initiation. You differ only from Marsyas in this circumstance, that you effect without instruments, by mere words, all that he can do; for, when we hear Pericles, or any other accomplished orator, deliver a discourse, no one, as it were, cares anything about it. But when any one hears you, or even your words related by another, though ever so rude and unskilful a speaker, be that person a woman, man, or child, we are

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* Plato, *Symposium*, Shelley's translation.

struck and retained, as it were, by the discourse clinging to our minds.

'If I was not afraid that I am a great deal too drunk, I would confirm to you by an oath the strange effects which I assure you I have suffered from his words, and suffer still; for, when I hear him speak, my heart leaps up far more than the hearts of those who celebrate the Corybantic Mysteries; my tears are poured out as he talks—a thing I have seen happen to many others beside myself. I have heard Pericles and other excellent orators, and have been pleased with their discourses, but I suffered nothing of this kind; nor was my soul ever on those occasions disturbed and filled with self-reproach, as if it were slavishly laid prostrate. But this Marsyas here has often affected me in the way I describe, until the life which I lead seemed hardly worth living. Do not deny it, Socrates; for I well know that if even now I chose to listen to you, I could not resist, but should again suffer the same effects; for, my friends, he forces me to confess, that while I myself am still in want of many things, I neglect my own necessities, and attend to those of the Athenians. I stop my ears, therefore, as from the Sirens, and flee away as fast as possible, that I may not sit down beside him and grow old in listening to his talk; for this man has reduced me to feel the sentiment of shame, which I imagine no one would readily believe was in me; he alone inspires me with remorse and awe; for I feel in his presence my incapacity of refuting what he says, or of refusing to do that which he directs; but, when I depart from him, the glory which the multitude confers overwhelms me. I escape, therefore, and hide myself from him, and when I see him I am overwhelmed with humiliation, because I have neglected to do what I have confessed to him ought to be done; and often and often have I wished that he were no longer to be seen among men. But, if that were to happen, I well know that I should suffer far greater pain; so that where I can turn, or what I can do with this man, I know not. All this have I and many others suffered from the pipings of this Satyr.

'And observe how like he is to what I said, and what a wonderful power he possesses. I know that there is not one of you who is aware of the real nature of Socrates; but since I have begun, I will make him plain to you. You observe how passionately Socrates affects the intimacy of those who are beautiful, and how ignorant he professes himself to be; appearances in themselves excessively Silenic. This, my friends, is the external form with which, like

one of the sculptured Sileni, he has clothed himself; for, if you open him, you will find within admirable temperance and wisdom: for he cares not for mere beauty, but despises more than any one can imagine all external possessions, whether it be beauty, or wealth, or glory, or any other thing for which the multitude felicitates the possessor. He esteems these things, and us who honour them, as nothing, and lives among men, making all the objects of their admiration the playthings of his irony. But I know not if any one of you have ever seen the divine images which are within, when he has been opened and is serious. I have seen them, and they are so supremely beautiful, so golden, so divine and wonderful, that everything which Socrates commands surely ought to be obeyed, even like the voice of a God.

'Many other and most wonderful qualities might well be praised in Socrates, but such as these might singly be attributed to others. But that which is unparalleled in Socrates, is, that he is unlike, and above comparison with, all other men, whether those who have lived in ancient times, or those who exist now; for, it may be conjectured, that Brasidas and many others are such as was Achilles. Pericles deserves comparison with Nestor and Antenor; and other excellent persons of various times may, with probability, be drawn into comparison with each other. But to such a singular man as this, both himself and his discourses are so uncommon, no one, should he seek, would find a parallel among the present or the past generations of mankind; unless they should say that he resembled those with whom I lately compared him; for, assuredly, he and his discourses are like nothing but the Sileni and the Satyrs. At first I forgot to make you observe how like his discourses are to those Satyrs when they are opened; for, if any one will listen to the talk of Socrates, it will appear to him at first extremely ridiculous; the phrases and expressions which he employs fold around his exterior the skin, as it were, of a rude and wanton Satyr. He is always talking about brass-founders, and leather-cutters, and skin-dressers; and this is his perpetual custom, so that any dull and unobservant person might easily laugh at his discourse. But, if any one should see it opened, as it were, and get within the sense of his words, he would then find that they alone of all that enters into the mind of man to utter, had a profound and persuasive meaning, and that they were most divine; and that they presented to the mind innumerable images of every excellence, and that they tended towards objects of the highest moment, or rather towards all that he who

seeks the possession of what is supremely beautiful and good need regard as essential to the accomplishment of his ambition.

'These are the things, my friends, for which I praise Socrates.'

This Silenus was the most formidable antagonist that the Sophists had encountered; but this is small praise for him who was hereafter to become one of the most reverenced names in the world's Pantheon,—who was to give a new impulse to the human mind, and leave, as an inheritance to mankind, the grand example of an heroic life devoted to Truth and crowned with martyrdom.

Everything about Socrates is remarkable,—personal appearance, moral physiognomy, position, object, method, life and death. Fortunately, his character and his tendencies have been so clearly pictured in the works of Plato and Xenophon, that although the portrait may be flattered we are sure of its resemblance.

He was born B.C. 469, the son of Sophroniscus, a sculptor,* and Phænarete, a midwife. His parents, though poor, managed, it is said, to give him the ordinary education. Besides which, he learned his father's art; whether he made any progress in it we are unable to say; probably not, as he relinquished it early. A group of Graces, which tradition attributed to the chisel of Socrates, was exhibited for centuries among the art treasures of the Acropolis; but we have of course no means of determining the authenticity of the relic. Diogenes Laertius tells us that Crito, a wealthy Athenian, charmed with the manners of Socrates, is said to have withdrawn him from the shop, and to have educated him. This Crito afterwards became a reverential disciple of the great genius he had discovered.

Considering that we have his own assertion as evidence of his having early studied Physics, for which he had an astonishing longing, and considering further that he so entirely relinquished that study, even declaring it to be impious,† it is of little importance to discuss, with German critics, whether he did or did not learn from Archelaus and Anaxagoras. That he learned oratory from Prodicus‡ is not discountenanced by the passage in Xenophon,§ where he is made to say, 'You despise me because you have squandered

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* Dr. Wiggers says, that Timon the Sillograph calls Socrates, with a sneer, λιθοξόος, 'a stone-scraper.' He forgets that λιθοξόος was one of the names for a sculptor, as Lucian informs us in the account of his early life.

† In Xenophon, 'madness.'—*Memorab.*, lib. i. c. 1.

‡ Plato, *Meno*, p. 96.

§ *Convivium*, i. 5.

money upon Protagoras, Gorgias, Prodicus, and so many others, in return for their teaching; whereas I am forced to draw my philosophy from my own brain;' for certainly, if any one can claim originality, it is Socrates: his philosophy he learned from no one. He struck into a new path. Instead of trying to account for the existence of the universe, he was ever craving, as Mr. Maurice well says, for a light to show him his own path through it.*

He did not commence teaching till about the middle of his career. We have but few records of the events which filled up the period between his first leaving his father and his first teaching. One of these was his marriage with Xanthippe, and the domestic squabbles which ensued. She bore him three children. The violence of her temper and the equanimity with which he submitted to it are proverbial. She has become a type; her name is synonymous with Shrew. He gave a playful explanation of his choice by remarking, that 'those who wish to become skilled in horsemanship select the most spirited horses; after being able to bridle those, they believe they can bridle all others. Now, as it is my wish to live and converse with men, I married this woman, being firmly convinced that in case I should be able to endure her, I should be able to endure all others.'†

Before he gave himself up to teaching, he performed military service in three battles, and distinguished himself in each. In the first, the prize of bravery was awarded to him. He relinquished his claim in favour of Alcibiades, whom it might encourage to deserve such honour. Various anecdotes are related of him during his campaigns. In spite of the severity of winter, when the ice and snow were thick upon the ground, he went barefoot and lightly clad. On one occasion he stood before the camp for four-and-twenty hours on the same spot wrapt in meditation. Plato has given us a beautiful description of Socrates during the campaign, which we quote in the translation by Shelley:—

'At one time we were fellow-soldiers, and had our mess together in the camp before Potidæa. Socrates, there overcame not only me, but every one besides, in endurance of toils: when, as happens in a campaign, we were reduced to few provisions, there were none who could sustain hunger like Socrates: and, when we had plenty, he alone seemed to enjoy our military fare. He never

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* Maurice, *Moral and Metaphysical Philosophy*, i. 113.

† Xenophon, *Convivium*, ii.

drank much willingly; but, when he was compelled he conquered all even in that to which he was least accustomed, and, what is most astonishing, no person ever saw Socrates drunk either then or at any other time. In the depth of winter (and the winters there are excessively rigid) he sustained calmly incredible hardships: and, amongst other things, whilst the frost was intolerably severe, and no one went out of their tents, or, if they went out, wrapt themselves up carefully and put fleeces under their feet, and bound their legs with hairy skins, Socrates went out only with the same cloak on that he usually wore, and walked barefoot upon the ice, more easily indeed than those who had sandalled themselves so delicately: so that the soldiers thought that he did it to mock their want of fortitude. It would indeed be worth while to commemorate all that this brave man did and endured in that expedition.

'In one instance he was seen early in the morning standing in one place wrapt in meditation, and, as he seemed not to be able to unravel the subject of his thoughts, he still continued to stand as inquiring and discussing within himself; and, when noon came, the soldiers observed him, and said to one another, 'Socrates has been standing there thinking, ever since the morning.' At last some Ionians came to the spot, and, having supped, as it was summer, bringing their blankets, they lay down to sleep in the cool: they observed that Socrates continued to stand there the whole night until morning, and that, when the sun rose, he saluted it with a prayer, and departed.

'I ought not to omit what Socrates is in battle; for, in that battle after which the Generals decreed to me the prize of courage, Socrates alone of all men was the saviour of my life, standing by me when I had fallen and was wounded, and preserving both myself and my arms from the hands of the enemy. On that occasion I entreated the Generals to decree the prize, as it was most due, to him. And this, O Socrates, you cannot deny, that when the Generals, wishing to conciliate a person of my rank, desired to give me the prize, you were far more earnestly desirous than the Generals, that this glory should be attributed, not to yourself, but me

'But to see Socrates when our army was defeated and scattered in flight at Delium, was a spectacle worthy to behold. On that occasion I was among the cavalry, and he on foot, heavily armed. After the total rout of our troops, he and Laches retreated together: I came up by chance, and, seeing them, bade them be of good cheer, for that I would not leave them. As I was on horseback, and there-

fore less occupied by a regard of my own situation, I could better observe, than at Potidæa, the beautiful spectacle exhibited by Socrates on this emergency. How superior was he to Laches in presence of mind and courage! Your representation of him on the stage, O Aristophanes, was not wholly unlike his real self on this occasion; for he walked and darted his regards around with a majestic composure, looking tranquilly both on his friends and enemies; so that it was evident to every one, even from afar, that whoever should venture to attack him would encounter a desperate resistance. He and his companion thus departed in safety; for those who are scattered in flight are pursued and killed, whilst men hesitate to touch those who exhibit such a countenance as that of Socrates even in defeat.'

We must cast a glance at his public career. His doctrine being Ethical, there is great importance in seeing how far it was practical. He proclaimed the supremacy of Virtue over all other rules of life; he exhorted men to a brave and unflinching adhesion to Justice, as the only real happiness; he declared that the unjust alone are unhappy. Was he himself virtuous? was he happy? The question is pertinent; fortunately it can be answered.

His bravery as a soldier was surpassed by his bravery as a senator. He had that high moral courage which can brave not only death, but opinion. He presents an example, almost unique in history, of a man who could defy a tyrant, and also defy a tyrannical mob, an impetuous, imperious mob. The Thirty Tyrants on one occasion summoned him, together with four others, to the Tholus, the place in which the Prytanes took their meals. He was there commanded to bring Leon of Salamis to Athens. Leon had obtained the right of Athenian citizenship, but, fearing the rapacity of the tyrants, had retired to Salamis. To bring back Leon, Socrates steadily refused. He says himself, that the 'Government, although it was so powerful, did not frighten me into doing anything unjust; but, when we came out of the Tholus, the four went to Salamis and took Leon, but I went away home. And perhaps I should have suffered death on account of this, if the Government had not soon been broken up.'

On another occasion he braved the clamorous mob. He was then a Senator, the only State office he ever held. The Athenian Senate consisted of the Five Hundred who were elected from the ten tribes. During a period of thirty-five or thirty-six days the members of each tribe in turn had the presidency, and were called *Prytanes*. Of the fifty Prytanes, ten had the presidency every seven days;

each day one of these ten enjoyed the highest dignity, with the name of *Epistates*. He laid everything before the assembly of the people, put the question to the vote, examined the votes, and, in short, conducted the whole business of the assembly. He enjoyed this power, however, only for a single day; for that day he was entrusted with the keys of the citadel and the treasury of the republic.

Socrates was Epistates on the day when the unjust sentence was to be passed on the Admirals who had neglected to bury the dead after the battle of Arginusæ. To take care of the burial of the dead was a sacred duty.* The shades of the unburied were believed to wander restlessly for a hundred years on the banks of the Styx. After the battle of Arginusæ, a violent storm arose, which prevented the Admirals from obtaining the bodies of the slain. In order to remedy this, they left behind them some inferior officers (Taxiarchs) to attend to the office. But the violence of the storm rendered it impossible. The Admirals were tried. They produced the evidence of pilots to show that the tempest had rendered the burial impracticable; besides which, they had left the Taxiarchs behind, so that the blame, if any, ought to fall on the latter. This produced its natural effect on the people, who would instantly have given an acquittal, if put to the vote. But the accusers managed to adjourn the assembly, pretending that it was too dark to count the show of hands. In the meanwhile the enemies of the Admirals did all they could to inflame the minds of the people. The lamentations and mournful appearance of the kinsmen of the slain, who had been hired for the tragic scene, had a powerful influence on the assembly. The votes were to be given on the general question, whether the Admirals had done wrong in not taking up the bodies of the dead; and, if they should be condemned by the majority (so the Senate ordained), they were to be put to death and their property confiscated. But to condemn all by one vote was contrary to law. The Prytanes, with Socrates at their head, refused to put the illegal question to the vote. The people became furious, and loudly demanded that those who resisted their pleasure, should themselves be brought to trial. The Prytanes wavered, yielded. Socrates alone remained firm, defying the threats of the mob. He stood there to administer justice. He would not administer injustice. In consequence of his refusal, the question could not be put to the vote, and the assembly was again adjourned. The next

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* The *Antigone* of Sophocles is founded on the sacredness of this duty.

day a new Epistates and other presidents succeeded, and the Admirals were condemned.*

It was impossible for Socrates to enter the market-place without at once becoming an object of attention. His ungainly figure, his moral character, and his bewitching tongue, excited and enchained curiosity. He became known to every citizen. Who had not listened to him? Who had not enjoyed his inimitable irony? Who had not seen him demolish the arrogance and pretension of some reputed wise man? Socrates must have been a terrible antagonist to all people who believed that they were wise because they could discourse fluently; and these were not few. He always declared that he knew nothing. When a man professed knowledge on any point, especially if admiring crowds gave testimony to that profession, Socrates was sure to step up to him, and, professing ignorance, entreat to be taught. Charmed with so humble a listener, the teacher began. Interrogated, he unsuspectingly assented to some very evident proposition; a conclusion from that, almost as evident, next received his assent; from that moment he was lost. With great power of logic, with much ingenious subtlety, and sometimes with daring sophistication, a web was formed from which he could not extricate himself. His own admissions were proved to lead to monstrous conclusions; these conclusions he repugned, but could not see where the gist of his error lay. The laughter of all bystanders bespoke his defeat. Before him was his adversary, imperturbably calm, apparently innocent of all attempt at making him ridiculous. Confused, but not confuted, he left the spot indignant with himself, but more indignant with the subtlety of his adversary.

It was thus that Socrates became mistaken for a Sophist; but he was distinguished from the Sophists by his constant object. Whilst they denied the possibility of truth, he only sought to make truth evident, in the ironical, playful, and, sometimes, quibbling manner in which he destroyed the arguments of opponents. Truth was his object, even in his lightest moments.

This sort of disputation daily occurred in Athens; and by it, doubtless, Socrates acquired that notoriety which induced Aristophanes to select him as the Sophist hero of the comedy of *The Clouds*. No one will doubt that to his adversaries he must have been an exasperating opponent. No one was safe from his attack.

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* Wiggers, pp. 51–55.

No one who presumed to know anything could escape him. In confirmation, let us quote the account Socrates gives of his procedure, as reported by Plato in the *Apology*. Socrates there describes his sensations on hearing that Apollo had declared him to be the wisest of men. He could not understand this. Knowing himself to be wise in nothing, yet not daring to think the words of the god could be false, he was puzzled. 'I went to one of those who are esteemed to be wise, thinking that here, if anywhere, I should prove the oracle to be wrong, and to be able to say, "Here is a man wiser than I." After examining this man (I need not name him, but he was one of the politicians), and conversing with him, it was my opinion that this man *seemed* to many others, and especially to himself, to be wise, but *was* not so. Thereupon I tried to convince him that he thought himself wise, but was not. By this means I offended him and many of the bystanders. When I went away, I said to myself, "I am wiser than this man; for neither of us, it would seem, knows anything valuable: but he, not knowing fancies he does know; I, as I really do not know, so I do not think I know. I seem, therefore, to be in one small matter wiser than he." After this I went to another still wiser than he, and came to the same result; and by this I affronted him too, and many others. I went on in the same manner, perceiving with sorrow and fear that I was making enemies; but it seemed necessary to postpone all other considerations to the service of the god, and therefore to seek for the meaning of the oracle by going to all who appeared to know anything. And, O Athenians, the impression made on me was this: The persons of most reputation seemed to me nearly the most deficient of all; other persons of much smaller account seemed much more rational.

'When I had done with the politicians, I went to the poets, tragic, dithyrambic, and others, thinking that I should surely find myself less knowing than they. Taking up those of their poems which appeared to me most laboured, I asked them (that I might at the same time learn something from them) what these poems meant? I am ashamed, O Athenians, to say the truth, but I must say it; there was scarcely a person present who could not have spoken better concerning their poems than they. I soon found that what poets do, they accomplish not by wisdom, but by a kind of natural turn, and an enthusiasm like that of prophets and those who utter oracles; for these, too, speak many fine things, but do not know one particle of what they speak.

'Lastly, I resorted to artificers; for I was conscious that I myself knew, in a manner, nothing at all, but should find them knowing many valuable things. And in this I was not mistaken; they knew things which I knew not, and were, so far, wiser than I. But they appeared to me to fall into the same error as the poets; each, because he was skilled in his own art, insisted upon being the wisest man in other and greater things; and this mistake of theirs overshadowed what they possessed of wisdom. From this search, O Athenians, the consequences to me have been, on the one hand, many enmities, and of the most formidable kind, which have brought upon me many false imputations; but, on the other hand, the name and general repute of a wise man.'

Socrates, like Dr. Johnson, did not care for the country. 'Sir,' said the Doctor, 'when you have seen one green field, you have seen all green fields; Sir, I like to look upon men. Let us walk down Cheapside.' In words of the same import does Socrates address Phædrus, who accused him of being unacquainted even with the neighbourhood of Athens. 'I am very anxious to learn; and from fields and trees I can learn nothing. I can only learn from men in the city.' And he was always to be found where men were assembled.* Ready to argue with every one, he demanded money from none. He gave no lectures: he only talked. He wrote no books: he argued.† He cannot properly be said to have had a school, since he did not even give a systematic exposition of his doctrine. What has been called his school, must be understood to refer to the many delighted admirers whose custom it was to surround him whenever he appeared, to talk with him as often as possible, and to accept his leading opinions.

'At what time Socrates relinquished his profession as a statuary we do not know; but it is certain that all the middle and later part of his life, at least, was devoted exclusively to the self-imposed task of teaching; excluding all other business, public or private, and to the neglect of all means of fortune. We can hardly avoid speaking of him as a teacher, though he himself disclaimed the appellation; his practice was to talk or converse. Early in the morning he fre-

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* Xenophon, *Memorab.* i. 1. Καὶ ἔλεγε μὲν ὡς τὸ πολὺ, τοῖς δὲ βουλομένοις ἐξῆν ἀκούειν.

† We are, therefore, disposed to accept as historical, the language Plato puts into his mouth respecting the inefficiency of books. Books cannot be interrogated, cannot answer; therefore, cannot teach: we can only learn from them that which we knew before.—*Phædrus*, p. 96.

quented the public walks, the gymnasia for bodily training, and the schools where youths were receiving instruction; he was to be seen in the market-place at the hour when it was most crowded, among the booths and tables where goods were exposed for sale; his whole day was usually spent in this public manner. He talked with any one, young or old, rich or poor, who sought to address him, and in the hearing of all who stood by; not only he never either asked or received any reward, but he made no distinction of persons, never withheld his conversation from any one, and talked on the same general subjects with all. . . . As it was engaging, curious and instructive to hear, certain persons made it their habit to attend him in public as companions and listeners. These men, a fluctuating body, were commonly known as his disciples and scholars; though neither he nor his personal friends ever employed the terms *teacher* and *disciple* to describe the relation between them. Now no other person in Athens, nor in any other Grecian city, appears ever to have manifested himself in this perpetual and indiscriminate manner as a public talker for instruction. By the peculiar mode of life which Socrates pursued, not only his conversation reached the minds of a much wider circle, but he became more abundantly known as a person. While acquiring a few friends and admirers, and raising a certain intellectual interest in others, he at the same time provoked a large number of personal enemies. This was probably the reason why he was selected by Aristophanes and the other comic writers to be attacked as a general representative of philosophical and rhetorical teaching.'*

Although Socrates was a knight-errant of philosophy, ever on the alert to rescue some forlorn truth from the dungeons of prejudice, and therefore was not scrupulous as to who or what his adversary might be, yet his especial enemies were the Sophists. He never neglected an opportunity of refuting them. He combated them with their own weapons, and on their own ground. He knew all their tactics. He knew their strength and their weakness. Like them he had studied Physics, in the speculations of the early thinkers; and like them had seen that these speculations led to no certainty. But he had not, like them, made scepticism a refuge; he had not proclaimed Truth to be a Phantom, because he could not embrace her. No: defeated in his endeavour to penetrate the mysteries of the world *without*, he turned his attention to the world

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* Grote, viii. 555.

within. For Physics he substituted Morals. The certitude which he failed to gain respecting the operations of nature, had not shaken his conviction of the certitude of the moral truths which his conscience irresistibly impressed upon his attention. The world of sense might be fleeting and deceptive. The voice of conscience could not deceive. Turning his attention inwards, he discovered certain truths which admitted of no question. They were eternal, immutable, evident. These he opposed to the scepticism of the Sophists. Moral certitude was the rock upon which his shipwrecked soul was cast. There he could repose in safety. From its heights he could survey the world, and his relation to it.

Thus was his life spent. In his old-age he had to appear before his judges to answer the accusations of Impiety and Immorality. He appeared, and was condemned.

When we think upon the character of this great man, whose virtues, luminous in the distance, and surrounded with the halo of imperishable glory, so impose on our imaginations, that they seem as evident as they were exalted, we cannot hear of his trial and condemnation without indignant disgust at the Athenians. But, for the sake of humanity, let us be cautious ere we decide. The Athenians were volatile, credulous and cruel: all masses of men are; and they, perhaps, were eminently so. But it is too much to suppose that they, or any people, would have condemned Socrates had he appeared to them what he appears to us. Had a tyrant committed such a deed, the people would have avenged it. But Socrates was not to them what he appears to us. He was offensive to them, and paid the penalty.

A great man cannot be understood by his contemporaries. He can only be understood by his peers; and his peers are few. Posterity exalts a great man's fame by producing a number of great men to appreciate him. The great man is also necessarily a reformer in some shape or other. Every reformer has to combat with existing prejudices and deep-rooted passions. To cut his own path, he must displace the rubbish which encumbers it. He is therefore in opposition to his fellow-men, and attacks their interests. Blinded by prejudice, by passion, and by interest, men cannot see the excellence of him they oppose; and hence it is that, as Heine so admirably says, 'wherever a great soul gives utterance to its thoughts, there also is Golgotha.'

Reformers are martyrs; and Socrates was a reformer. Although, therefore, his condemnation appears to us very unjust and very

frightful, to the Athenians it was no more than the banishment of Empedocles, or the condemnation of Protagoras. Pure as were his intentions, his actions and opinions were offensive. He incurred the hatred of party-spirit; and by that hatred fell. *We* recognize the purity of his intentions; he does not oppose *us*. We can pardon what we believe to be his errors, because those errors wage no war with our interests. Very differently were the Athenians situated. To them he was offensive. He hated injustice and folly of all kinds, and never lost an occasion of exposing them. A man who undertakes to be the critic of his age cannot escape the critic's penalty. Socrates censured freely, openly. *

But, perhaps, the most exasperating part of his behaviour was the undisguised contempt which he uniformly expressed for the readiness with which men assumed they had a capacity for government. Only thewise, he said, were fit to govern, and they were few. Government is a science, and a difficult science. It is infinitely more difficult to govern a State than to govern the helm of a ship. Yet, the same people who would not trust themselves in a ship without an experienced pilot, not only trust themselves in a State with an inexperienced ruler, but also endeavour to become rulers themselves. This contempt was sufficient to cause his condemnation; but a better pretext was wanted, and it was found in his impiety. His defenders, ancient and modern, have declared that he was not guilty of impiety; and Xenophon 'wonders' that the charge could have been credited for an instant. But we believe that the charge was as much merited as in the case of the other philosophers against whom it was made.† He gave new interpretations to the reigning dogmas; and opposing the mythological interpretations, he was chargeable with impiety.

It has been remarked by an anonymous writer, that, in complying with the rites of his country, Socrates avoided her superstitions. The rite of sacrifice, so simple and natural that it harmonizes with all and any religious truth, required to be guarded against a great abuse, and against this he warned his countrymen.

'When' says Xenophon 'he sacrificed, he feared not his offering

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* The masterly account of the trial of Socrates, given by Mr. Grote, should be read and re-read by all interested in this subject.

† Sextus Empiricus, speaking of the Socratic heresy, calls it ὡς ἐκραυλίζουσαν τὸ θεῖον.—*Adv. Math.* ii. p. 69.—Plato's dialogues of *The Second Alcibiades* and the *Euthyphro* are evidence enough of Socrates' opposition to the Mythology of his day.

would fail of acceptance in that he was poor; but, giving according to his ability, he doubted not but, in the sight of the Gods, he equalled those men whose gifts and sacrifices overspread the whole altar; for Socrates always reckoned upon it as a most indubitable truth, that the service paid the Deity by the pure and pious soul was the most grateful service.

'When he prayed, his petition was only this,—that the Gods would give to him those things that were good. And this he did, forasmuch as they alone knew what was good for man. But he who should ask for gold or silver, or increase of dominion, acted not, in his opinion, more wisely than one who should pray for the opportunity to fight, or game, or anything of the like nature; the consequence whereof being altogether doubtful, might turn, for aught he knew, not a little to his disadvantage.'*

It was more difficult for the philosopher either innocently to comply with, or safely to oppose, that part of the popular religion which related to oracles and omens. Socrates appears to have done what was possible, and what therefore was best ultimately, towards correcting this great evil.

'He likewise asserted, that the science of divination was necessary for all such as would govern successfully, either cities or private families; for, although he thought every one might choose his own way of life, and, afterwards, by his industry, excel therein (whether architecture, mechanics, agriculture, superintending the labourer, managing the finances, or practising the art of war), yet even here, the Gods, he would say, thought proper to reserve to themselves, in all these things, the knowledge of that part of them which was of the most importance, since he who was the most careful to cultivate his field, could not know, of a certainty, who should reap the fruit of it.

'Socrates therefore esteemed all those as no other than madmen who, excluding the Deity, referred the success of their designs to nothing higher than human prudence. He likewise thought those not much better who had recourse to divination on every occasion, as if a man was to consult the oracle whether he should give the reins of his chariot into the hands of one ignorant or well versed in the art of driving, or place at the helm of his ship a skilful or unskilful pilot.

'He also thought it a kind of impiety to importune the Gods with our inquiries concerning things of which we may gain the know-

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* *Memorabilia*, i. 3.

ledge by number, weight, or measure; it being, as it seemed to him, incumbent on man to make himself acquainted with whatever the Gods had placed within his power: as for such things as were beyond his comprehension, for these he ought always to apply to the oracle; the Gods being ever ready to communicate knowledge to those whose care had been to render them propitious.'*

The trial of Socrates belongs rather to the history of Greece than to the history of Philosophy. It was a political trial. His bearing during the whole period was worthy of him: calm, grave, and touching; somewhat haughty perhaps, but with the haughtiness of a brave soul fighting for the truth. It increased the admiration of his admirers, and exasperated his adversaries.

Plato, then a young man, was present at the trial, and has preserved an admirable picture of it in his *Apology*. The closing speech, made by Socrates, after sentence of death had been pronounced, is supposed to be given with substantial accuracy by Plato. We extract it:—

'It is for the sake of but a short span, O Athenians, that you have incurred the imputation, from those who wish to speak evil of the city, of having put to death Socrates, a wise man (for those who are inclined to reproach you will say that I am wise, even if I am not). Had you waited a short time the thing would have happened without your agency; for you see my years; I am far advanced in life, and near to death. I address this not to all of you, but to those who have voted for the capital sentence, and this too I say to the same persons,—Perhaps you think that I have been condemned for want of skill in such modes of working upon your minds, as I might have employed with success, if I had thought it right to employ all means in order to escape from condemnation. Far from it: I have been condemned, and not from want of things to say, but from want of daring and shamelessness; because I did not choose to say to you the things which would have been pleasantest for you to hear, weeping, and lamenting, and saying and doing other things which I affirm to be unworthy of me; as you are accustomed to see others do. But neither did I then think fit to do or say anything unworthy of a freeman; nor do I now repent of having thus defended myself. I would far rather have made the one defence and die, than have made the other and live. Neither in a court of justice, nor in war, ought we to make it our object

* *Memorabilia*, i. 1.

that, whatever happen, we may escape death. In battle it is often evident that a man may save his life by throwing away his arms and imploring mercy of his pursuers; and in all other dangers there are many contrivances by which a person may get off with life if he dare do or say everything. The difficulty, O Athenians, is not to escape from death, but from guilt; for guilt is swifter than death, and runs faster. And now I, being old and slow of foot, have been overtaken by Death, the slower of the two; but my accusers, who are brisk and vehement, by wickedness, the swifter. We quit this place: I have been sentenced by you to death, but they having sentence passed upon them, by Truth, of guilt and injustice. I submit to my punishment, and they to theirs.

'But I wish, O men who have condemned me, to prophesy to you what next is to come. I say, then, that, immediately after my death, there will come upon you a far severer punishment than that which you have inflicted upon me; for you have done this, thinking by it to escape from being called to account for your lives. But I affirm that the very reverse will happen to you. There will be many to call you to account whom I have hitherto restrained, and whom you saw not; and, being younger, they will give you more annoyance, and you will be still more provoked; for, if you think by putting men to death to deter others from reproaching you with living amiss, you think ill. That mode of protecting yourselves is neither very possible nor very noble: the noblest and the easiest too is not to cut off other people, but so to order yourselves as to attain the greatest excellence.

'Thus much I beg of you: When my sons grow up, punish them, O Athenians, by tormenting them as I tormented you, if they shall seem to study riches, or any other ends, in preference to virtue. And, if they are thought to be something, being really nothing, reproach them, as I have reproached you, for not attending to what they ought, and fancying themselves something when they are good for nothing. And, if you do this, both I and my sons shall have received what is just at your hands.

'It is now time that we depart, I to die, you to live; but which has the better destiny is unknown to all except the God.'

This is very grand and impressive, and paints the character of the man. *Magno animo et vultu carcerem intravit*, says Seneca. He consoled his weeping friends, and gently upbraided them for their complaints at the injustice of the sentence. No man ever faced death with greater calmness; for no man ever welcomed it with greater faith as a new birth to a higher state of being.

He would have been executed the next day, but it happened that the next day was the first of the festival of the Delian Theoria, during which no criminal could be put to death. This festival lasted thirty days. Socrates, though in chains and awaiting his end, spent the interval in cheerful conversation with his friends, and in composing verses. 'During this time,' says Xenophon, 'he lived before the eyes of all his friends in the same manner as in former days; but now his past life was most admired on account of his present calmness and cheerfulness of mind.' On the last day he held a conversation with his friends on the immortality of the soul. This forms the subject of Plato's *Phædo*. The arguments in that dialogue are most probably Plato's own; and it is supposed that the dying speech of Cyrus, in Xenophon's *Cyropædia*, is a closer copy of the opinions of Socrates.

Phædo, describing the impression produced on him by the sight of Socrates on this final day, says:—'I did not feel the pity which it was natural I should feel at the death of a friend: on the contrary, he seemed to me perfectly happy as I gazed on him and listened to him; so calm and dignified was his bearing. And I thought that he only left this world under the protection of the Gods, who destined him to a more than mortal felicity in the next.' He then details the conversation on the immortality of the soul; after which, he narrates the close of that glorious life in language worthy of it. Even in the English version of Taylor the beauty of the narrative stands manifestly out.

'When he had thus spoke, he rose, and went into a room, that he might wash himself, and Crito followed him: but he ordered us to wait for him. We waited, therefore, accordingly, discoursing over, and reviewing among ourselves, what had been said, and sometimes speaking about his death, how great a calamity it would be to us; and sincerely thinking that we, like those who are deprived of their father, should pass the rest of our life in the condition of orphans. But, when he had washed himself, his sons were brought to him (for he had two little ones, and one considerably advanced in age), and the women belonging to his family likewise came in to him: but, when he had spoken to them before Crito, and had left them such injunctions as he thought proper, he ordered the boys and women to depart; and he himself returned to us. And it was now near the setting of the sun: for he had been absent for a long time in the bathing-room. But, when he came in from washing, he sat down, and did not speak much afterwards; for, then, the servant of

the eleven magistrates came in, and, standing near him, I do not perceive that in you, Socrates (says he), which I have taken notice of in others; I mean that they are angry with me, and curse me, when, being compelled by the magistrates, I announce to them that they must drink the poison. But, on the contrary, I have found you at the present time to be the most generous, mild, and best of all the men who ever came into this place: and, therefore, I am now well convinced that you are not angry with me, but with the authors of your present condition. You know those whom I allude to. Now, therefore (for you know what I came to tell you), farewell! and endeavour to bear this necessity as easily as possible. And at the same time, bursting into tears, and turning himself away, he departed.

'Then Crito gave the sign to the boy that stood near him. And the boy departing, and, having staid for some time, came, bringing with him the person that was to administer the poison, and who brought it properly prepared in a cup. But, Socrates, beholding the man,—It's well, my friend (says he); but what is proper to do with it? for you are knowing in these affairs. You have nothing else to do (says he) but when you have drunk it to walk about, till a heaviness takes place in your legs, and afterwards lie down: this is the manner in which you should act. And, at the same time, he extended the cup to Socrates. But Socrates received it from him, and, indeed, with great cheerfulness; neither trembling nor suffering any alteration for the worse in his colour or countenance, but, as he was accustomed to do, beholding the man with a bull-like aspect. What say you (says he) respecting this potion? Is it lawful to make a libation of it, or not? We only bruise (says he), Socrates, as much as we think sufficient for the purpose. I understand you (says he); but it is certainly both lawful and proper to pray to the Gods, that my departure from hence thither may be attended with prosperous fortune; which I entreat them to grant may be the case. And, at the same time ending his discourse, he drank the poison with exceeding facility and alacrity. And thus far, indeed, the greater part of us were tolerably well able to refrain from weeping; but, when we saw him drinking, and that he had drunk it, we could no longer restrain our tears. But from me, indeed, notwithstanding the violence which I employed in checking them, they flowed abundantly; so that, covering myself with my mantle, I deplored my misfortune. I did not, indeed, weep for him, but for my own fortune, considering what an associate I should

be deprived of. But, Crito, who was not able to restrain his tears, was compelled to rise before me. And Apollodorus, who, during the whole time prior to this, had not ceased from weeping, then wept aloud, and with great bitterness; so that he infected all who were present except Socrates. But Socrates, upon seeing this, exclaimed: What are you doing, excellent men? For, indeed, I principally sent away the women, lest they should produce a disturbance of this kind. For I have heard it is proper to die attended with propitious omens. Be quiet, therefore, and summon fortitude to your assistance. But when we heard this we blushed, and restrained our tears. But he, when he found, during his walking, that his legs felt heavy, and had told us so, laid himself down in a supine position. For the man had ordered him to do so. And, at the same time, he who gave him the poison, touching him at intervals, considered his feet and legs. And, after he had vehemently pressed his foot, he asked him if he felt it. But Socrates answered he did not. And, after this, he again pressed his thighs: and, thus ascending with his hand, he showed us that he was cold and stiff. And Socrates also touched himself, and said that when the poison reached his heart he should then leave us. But now his lower belly was almost cold; when, uncovering himself (for he was covered) he said (which were his last words), Crito, we owe a cock to Æsculapius. Discharge this debt, therefore, for me, and don't neglect it. It shall be done (says Crito); but consider whether you have any other commands. To this inquiry of Crito he made no reply; but shortly after moved himself, and the man covered him. And Socrates fixed his eyes. Which, when Crito perceived, he closed his mouth and eyes. This was the end of our associate; a man, as it appears to me, the best of those whom we were acquainted with at that time; and, besides this, the most prudent and just.'

Thus perished this great and good man a martyr to Philosophy. His character we have endeavoured to represent fairly, though briefly. Let us now add the summing-up of Xenophon, who loved him tenderly, and expressed his love gracefully:—

'As to myself, knowing him of a truth to be such a man as I have described; so pious towards the Gods, as never to undertake anything without first consulting them; so just towards men, as never to do an injury, even the very slightest, to any one, whilst many and great were the benefits he conferred on all with whom he had any dealings; so temperate and chaste, as not to indulge any appetite or inclination at the expense of whatever was modest and

becoming; so prudent as never to err in judging of good and evil, nor wanting the assistance of others to discriminate rightly concerning them; so able to discourse upon, and define with the greatest accuracy, not only those points of which we have been speaking, but likewise every other, and, looking as it were into the minds of men, discover the very moment for reprehending vice, or stimulating to the love of virtue: experiencing, as I have done, all these excellencies in Socrates, I can never cease considering him as the most virtuous and the most happy of all mankind. But, if there is any one who is disposed to think otherwise, let him go and compare Socrates with any other, and afterwards let him determine.'*

After-ages have cherished the memory of his virtues and his fate; but without profiting much by his example, and without learning tolerance from his story.

§ II. Philosophy of Socrates.

Opinions vary so considerably respecting the philosophy of Socrates, and materials whereby they can be tested are so scanty, that any attempt at exposition must be made with diffidence. The historian has to rely solely on his critical skill; and on such grounds he will not, if prudent, be very confident.

Amongst the scattered materials from which an opinion may be formed are, 1st. The very general tradition of Socrates having produced a revolution in thought; in consequence of which he is by all regarded as the initiator of a new epoch; and by some as the founder of Greek Philosophy, properly so called. 2ndly. The express testimony of Aristotle, that he first made use of *definitions* and proceeded by *induction*.† These two positions involve each other. If Socrates produced a revolution in philosophy, he could only have done so by a new Method. That Method we see exhibited in the phrase of Aristotle, but it is there only exhibited in a brief concentrated manner, and requires to be elucidated.

Assuredly we may echo Mr. Grote's statement, that it requires

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* *Memorabilia*, iv. 7.

† 'There are two things of which Socrates must justly be regarded as the author, the *Inductive Reasoning* and *Abstract Definitions*,'—τοὺς τ' ἐπακτικοὺς λόγους καὶ τὸ ὁρίζεσθαι καθόλου. (Arist. *Metaph.* xiii. 4.) Xenophon has several indications of the inductive method: he also says that Socrates always proceeded from propositions best known to those less known, which is a definition of Induction.

at the present day some mental effort to see anything important in the invention of notions so familiar as those of Genus—Definition—Individual things as comprehended in a genus—what each thing is, and to what genus it belongs, etc. Nevertheless four centuries before Christ these terms denoted mental processes which few, if any but Socrates, had a distinct recognition of, in the form of analytical consciousness. 'The ideas of men—speakers as well as hearers, the productive minds as well as the recipient multitude—were associated together in groups, favourable rather to emotional results, or to poetical, rhetorical narrative, and descriptive effect, than to methodical generalization, to scientific conception, or to proof either inductive or deductive. That reflex act of attention which enables men to understand, compare, and rectify their own mental process was only just beginning. It was a recent novelty on the part of the rhetorical teachers to analyze the component parts of a public harangue, and to propound some precepts for making men tolerable speakers. It may be doubted whether any one before Socrates ever used the words Genus and Species (originally meaning Family and Form), in the philosophical sense now exclusively appropriated to them. Not one of those many names (called by logicians *names of the second intention*) which imply distinct attention to various parts of the logical process, and enable us to criticize it in detail, then existed. All of them grew out of the schools of Plato, Aristotle, and the subsequent philosophers, so that we can thus trace them in their beginning to the common root and father, Socrates.'* The novelty was very distasteful to all who were not seduced by it. Men resent being forced to rigour of speech and thought; they call you 'pedantic' if you insist on their using terms with definite meanings; they prefer the loose flowing language of indefinite association which picks up in its course a variety of heterogeneous meanings; and are irritated at any speaker who points out to them the inaccuracy of their phrases. Aristotle says it was thought bad taste in his day—ἡ ἀκριβολογία μικροπρεπές: and Timon the Sillograph sarcastically calls Socrates one of the ἀκριβόλογοι, as if precision of language were a vice.

'The notions of Genus, subordinate genera, and individuals as comprehended under them, were at that time newly brought into clear consciousness in the human mind. The profusion of logical distribution employed in some of the dialogues of Plato seems partly

* Grote, viii. 578.

traceable to his wish to familiarize his hearers with that which was then a novelty, as well as to enlarge its development and diversify its mode of application.' 'We must always consider the Method of Socrates in conjunction with the subjects to which he applied it. . . On such questions as these—What is justice?—What is piety?—What is democracy?—What is law?—every man fancied that he could give a confident opinion, and even wondered that any other person should feel a difficulty. When Socrates, professing ignorance, put any such question, he found no difficulty in obtaining an answer, given off-hand and with very little reflection. The answer purported to be the explanation or definition of a term, familiar indeed, but of wide and comprehensive import,—given by one who had never before tried to render to himself an account of what it meant. Having got this answer, Socrates put fresh questions, applying it to specific cases, to which the respondent was compelled to give answers inconsistent with the first; showing that the definition was either too narrow or too wide, or defective in some essential condition. The respondent then amended his answer; but this was a prelude to other questions, which could only be answered in ways inconsistent with the amendment; and the respondent, after many attempts to disentangle himself, was obliged to plead guilty to the inconsistencies, with an admission that he could make no satisfactory answer to the original query which at first had appeared so easy and familiar. . . The discussion first raised by Socrates turns upon the meaning of some large generic term. The queries whereby he follows it up bring the answer given into collision with various particulars which it ought not to comprehend, or with others which it ought to comprehend but does not. The inconsistencies into which the hearer is betrayed in his various answers proclaim to him the fact that he has not yet acquired anything like a clear and full conception of the common attribute which binds together the various particulars embraced under some term which is ever upon his lips. He is thus put upon the train of thought which leads to a correction of the generalization, and lights him on to that which Plato calls seeing the One in the Many, and the Many in the One.'*

Because Socrates employed Induction, it is frequently stated that he anticipated Bacon's Inductive Method. Passages can certainly be quoted in which Socrates and Bacon hold very similar language;

* Grote, viii. 583–8.

and in some respects their reform was analogous; but the differences are more profound than the resemblances. The aim and purpose of Socrates was confessedly to withdraw the mind from contemplating the phenomena of nature, and to fix it on its own phenomena: truth was to be sought by looking inwards, not by looking outwards. The aim and purpose of Bacon's philosophy was the reverse of this; he exhorted men to the observation and interpretation of nature, and energetically denounced all attempts to discover the operations of mind. If Socrates pushed too far this contempt of physics, Bacon pushed too far his contempt of psychology: the exaggeration was, in each case, produced by the absurdities of contemporaries.

Not more decided is the contrast between their conceptions of Induction. With Socrates it was little more than *Inductio per enumerationem simplicem,* or 'reasoning by analogy,'—the mere collection of particular facts,—a process which it was Bacon's peculiar merit to have utterly destroyed. The whole force of the *Novum Organum* may be said to be directed against this erroneous method. The triviality of the method may indeed be seen in the quibbles to which it furnishes support in Plato; it may be seen also in the argument used by Aristippus to justify his living with Laïs the courtesan. 'Do you think, Diogenes, that there is anything odd in inhabiting a house that others have inhabited before you?—No. Or sailing in a ship in which many men have sailed before you?—No. By parity of reasoning, then, there is nothing odd in living with a woman whom many men have lived with before.' This quibble is a legitimate Socratic induction; and it was made by a pupil of Socrates. It is only a parody of the arguments by which it was proved that to inflict injustice is more painful than to suffer it; one of the many startling dogmas attributed to Socrates. Whoever supposes this Induction to be the Baconian Induction (which is an *interrogation* of nature), has missed the sense of the *Novum Organum.* Indeed, to suppose that such a conception as Bacon's could have been originated so early in the history of science, is radically to mistake the course of human development.

Mr. Grote has quoted several striking passages from Bacon,* to show the parallel between the spirit and purpose of the Baconian and Socratic Methods; and probably most readers will agree with him when he says that Socrates 'sought to test the fundamental

* Vol. viii. p. 612.

notions and generalizations respecting man and society in the same spirit in which Bacon approached those of Physics: he suspected the unconscious process of the growing intellect, and desired to revise it, by comparison with particulars, and from particulars, too, the most clear and certain, but which, from being of vulgar occurrence, were least attended to. And that which Socrates described in his language as the 'conceit of knowledge without the reality' is identical with what Bacon designates as the *primary notions*—the *puerile observations*—the *aberrations* of the intellect left to itself.' But in spite of this resemblance the difference is profound, and it rises into unmistakable distinctness when we consider the results in the philosophies of the two: the Socratic Method is seen developed in Plato and Aristotle, the Baconian in Newton and Faraday; and if, as was stated in our Introduction, the adoption of the Method of graduated Verification was not owing to a previous circumscription of the aims of Philosophy, but, on the contrary, if this Method necessarily led to the circumscription, it follows that systems so metaphysical as those which came out of the Socratic teaching must have been the produce of a very different Method from that which led to modern science.

Conceit of knowledge, without the reality, was by Socrates perpetually stigmatized as the most disgraceful of mental defects,* and the whole effort of his terrible questioning—the 'cross-examining Elenchus'—was to make men aware of this conceit, to prove to them that their knowledge was a *sham*, as Carlyle would call it. Instead of the loose, heterogeneous conceptions with which men deceived themselves and others into the belief of knowledge, he insisted on the substitution of rigorous and distinct conceptions.

How could this be done but by Definitions? To know the essence of a thing you must consider it as distinct from everything else, you must *define* it; by defining it you demarcate it from what it is *not*, and so present the thing before you in its essence.

It was a fundamental conviction with him that it is impossible to start from one true thought, and be entangled in any contradiction with another true thought; knowledge derived from any one point, and obtained by correct combination, cannot contradict that which has been obtained from any other point. He believed that Reason was pregnant with Truths, and only needed an accoucheur. An

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* Plato, *Apologia*, p. 29 (p. 114, ed. Bekker): *καὶ τοῦτο πῶς οὐκ ἀμαθία ἐστὶν αὕτη ἡ ἐπονείδιστος, ἡ τοῦ οἴεσθαι εἰδέναι ἃ οὐκ οἶδεν;*

accoucheur he announced himself; his main instruments were Definitions. By Definition he enabled the thinker to separate the particular thought he wished to express from the myriad of other thoughts which clouded it. By Definition he enabled a man to contemplate the essence of a thing, because he admitted nothing which was not essential into the definition.

The radical mistake here is the confusion between Definitions of Names and Definitions of Things. In the Definition of a Name nothing more is implied than the meaning *intended* to be affixed; in the definition of a Thing there is, over and above this intended meaning, the assertion of a corresponding fact which the definition describes.

We have more than once commented on the natural tendency of the early thinkers to mistake distinctions in words for distinctions in things. We have now to signalize, in the history of speculation, the reduction of this tendency to a systematic formula. Names henceforth have the force of things.* A correct Definition is held to be a true description of the Thing *per se:* the *explanation of terms* as equivalent to the *explanation of things*, and the *exhibition of the nature of any thing in a definition* as equivalent to our *actual analysis of it in a laboratory*—are the central errors of the Platonic and Aristotelian philosophy. These errors continue to flourish in all the metaphysical systems of the present day.

When stated in a naked manner, the absurdity of this Method is apparent; but it may be so disguised as to look profoundly philosophic. Hence the frequent use of such locutions as that certain properties are 'involved in the idea' of certain things; as if being involved in the idea, *i. e.* being included in the definition, necessarily implied a correspondent *objective* existence; as if human conceptions were the faithful copies of external things. The conceptions of men widely differ; consequently different properties are 'involved' in these different conceptions; but all cannot be true, and the question arises, Which conception is true? To answer this question by anything like a definition, is to argue in a circle. A principle of certitude must be sought. That principle, however, is still to seek.

The influence of the theory of definitions will be more distinctly discernible as we proceed. It is the one grand characteristic of the Method Socrates originated. In it must be sought the explanation of his views of Philosophy.

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* See Plato's *Cratylus, passim*

He has been almost taunted with never having promulgated any system of his own. His rank in the history of philosophy has been questioned, and has been supposed to be only that of a moralist. A passage of Aristotle has been quoted as decisive on this point: 'The speculations of Socrates were only concerning Ethics, and not at all concerning Nature in general' (*τῆς ὅλης φύσεως*). But this is not *all* the passage: it continues thus: 'In these speculations he sought the Abstract (*τὸ καθόλου*), and was the first who thought of giving definitions.' Now in this latter portion we believe there is contained a hint of something more than the mere moralist—a hint of the metaphysician. On turning to another part of Aristotle's treatise* we accordingly find this hint more clearly brought out; we find an express indication of the metaphysician. The passage is as follows: 'Socrates concerned himself with ethical virtues, and he first sought the abstract definitions of these. Before him Democritus had only concerned himself with a part of Physics, and defined but the Hot and the Cold. But Socrates, reasonably (*εὐλόγως*), sought the Essence of Things, *i. e.* sought *what exists.*'

Moreover, in another passage (lib. iii. c. 2) Aristotle reproaches Aristippus for having rejected science, and concerned himself solely with morals. This is surely negative evidence that Socrates was not to be blamed for the same opinion; otherwise he would have been also mentioned.

It was a natural mistake to suppose that Socrates was only a Moralist, seeing that his principal topics were always Man and Society, and never Physical speculations, which he deemed beyond the reach of human intellect. If, however, Socrates had been merely a Moralist, his place in the history of Philosophy would not have been what it is; no Plato, no Aristotle would have called him master. He made a new epoch. The previous philosophers had directed their attention to external Nature, endeavouring to explain its phenomena; he gave up all such speculations, and directed his attention solely to the nature of Knowledge.

Men speculated at random. They sought truth, but they only built hypotheses, because they had not previously ascertained the *limits and conditions of inquiry*. They attempted to *form sciences* before having settled the *conditions of Science*. It was the peculiar merit of Socrates to have proposed as the grand question of philosophy the nature and conditions of Science.

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* *Metaph.* xiii. 4.

The reader may now begin to appreciate the importance of Definitions in the Socratic Method, and may understand why Socrates did not himself invent systems, but only a Method. He likened himself to a Midwife, who, though unable to bring forth children herself, assisted women in their labours. He believed that in each man lay the germs of wisdom. He believed that no science could be *taught;* only *drawn out*. To borrow the ideas of another was not to learn; to guide oneself by the judgment of another was blindness. The philosophers, who pretended to teach everything, could teach nothing; and their ignorance was manifest in the very pretension. Each man must conquer truth for himself, by rigid struggle with himself. He, Socrates, was willing to assist any man when in the pains of labour: he could do no more.

Such being the Method, we cannot wonder at his having attached himself to Ethical rather than to Physical speculations. His philosophy was a realization of the inscription at Delphos—*Know Thyself*. It was in himself that he found the ground of certitude which was to protect him against scepticism. It was therefore moral science which he prized above all others. Indeed, we have great reason to believe that his energetic denouncement of Physical speculations, as reported by Xenophon, was the natural, though exaggerated, conclusion to which he had been hurried by a consideration of the manifold absurdities into which they drew the mind, and the scepticism which they induced. There could be nothing but uncertainty on such subjects.

'I have not leisure for such things,' he is made to say by Plato, 'and I will tell you the reason: I am not yet able, according to the Delphic Inscription, to *Know myself;* and it appears to me very ridiculous, while ignorant of myself, to inquire into what I am not concerned in.'* That he did, however, at one period occupy himself with them is clear from other sources, and is a point in the comedy of the *Clouds*, where he is represented 'air-treading and speculating about the sun,'—*ἀεροβατῶ καὶ περιφρονῶ τὸν ἥλιον*,—and his disciples seeking things hidden underground—*τὰ κατὰ γῆς*. This has led many to suppose that Aristophanes knew nothing whatever of Socrates, but only took him as an available comic type of the Sophists,—a supposition to which there are several objections. Firstly, it is not usual in satirists to select for their butt a person of whom they know nothing. Secondly, Socrates, of all Athenians, was the

* *Phædrus*, p. 8.

most notorious, and most easily to be acquainted with in a general way. Thirdly, he could not be a type of the Sophists, in as far as related to physical speculations, since we well know the Sophists scouted physics. Fourthly, he did occupy himself with Physics early in his career; and probably did so when Aristophanes satirized him, although in after-life he regarded such speculations as trivial.

It was quite possible that Aristophanes should have made no such nice discrimination between the dialectical quibbling of Socrates and that of the Sophists, as would prevent him from representing Socrates teaching 'the art to make the worse appear the better reason;'* but it is scarcely credible that he should have made so flagrant a mistake as to accuse Socrates of busying himself with Physics, when every one of the audience could answer that Socrates never troubled himself at all about it. In our day Proudhon and Louis Blanc are often classed together as teachers of the same Socialist doctrines; or Strauss and Feuerbach as teachers of the same theological doctrines; but no satirist would laugh at Louis Blanc for his astronomical speculations, or at Strauss for his devotion to the Microscope. The Aristophanic evidence, therefore, seems perfectly admissible as respects the physical speculations of Socrates at or about the time when the *Clouds* was produced. If they were afterwards relinquished, it was because they led to no certainty.

That Philosophy, and not Morals, was really the aim of Socrates, is clear from his subordination of all morals to science. He considers Virtue to be identical with Knowledge.† Only the wise man, said he, can be brave, just, or temperate. Vice of every kind is Ignorance; and involuntary, because ignorant. If a man is cow-

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* *Nubes*, v. 112–15.

† *Φρονήσεις ᾤετο εἶναι πάσας τὰς ἀρετάς.*—Aristot. *Ethic. Nicomach.* vi. 13. Plato, in the *Meno*, makes him maintain that Virtue cannot be Science, cannot be taught. But this is not Socratic. 'Whether Virtue can be taught was a question much agitated in the time of Socrates, who appears to give contradictory decisions on different occasions. Comp. Plat. *Meno*, pp. 96, 98, with *Protagoras*, p. 361, in the latter of which passages he censures his own inconsistency, in first denying that Virtue can be taught, and then maintaining that Virtue is Science. Ascending to Xenophon, *Mem.* i. 2, 19, Socrates seems to have adopted the common-sense view that Virtue is partly matter of teaching, partly of practice (*ἀσκητόν*), and partly of natural disposition. But Xenophon was unconscious of the logical difficulty of reconciling this with that identification of Virtue with Science or Wisdom which he elsewhere distinctly attributes to his master.'—Thompson's Note to *Butler's History of Philosophy*, i. 374.

ardly, it is because he does not rightly appreciate the importance of life and death. He thinks death an evil, and flees it. If he were wise, he would know that death is a good thing, or, at the worst, an indifferent one, and therefore would not shun it. If a man is intemperate, it is because he is unable to estimate the relative value of present pleasure and future pain. Ignorance misleads him. It is the nature of man to seek good and shun evil: he would never seek evil, knowing it to be such; if he seeks it, he mistakes it for good: if he is intemperate, it is because he is unwise.

Method was his all-in-all. Nor is it impossible to trace the origin of this conception in his mind. The Pythian oracle had declared him to be the wisest of men. The assertion greatly puzzled him, for he found on deep introspection that he knew nothing; all his fancied knowledge was that conceit of knowledge without the reality, which he saw puffing up other men; and his sole distinction was that *he* knew the depth of his own ignorance, while *they* believed themselves to be knowing; and it was because he knew this that he understood the meaning of the oracle. Thus much we have on his explicit authority. If we now consider that his title of the 'wisest' was owing to the profound consciousness of the unreality of all which hitherto had passed for wisdom (the proof of which was exposed by means of his cross-examining Elenchus), we shall be able to understand how it was he came to make his Method in and for itself the great aim of Philosophy, and how instead of desiring to make converts to any system, or to gain acceptance for any special theories on physics or ethics, he always and everywhere desired to awaken the cross-examining spirit in the minds of his hearers, so that each in his own turn might awaken it in others, because in this, and this alone, consisted real Wisdom. Previous philosophies had shown the futility of speculation; certitude was nowhere to be had; all such theories were but the conceit of knowledge. The Method which he taught was that by which alone man could become wiser and better.

It is clear that the novelty of the Method so completely fascinated him as to prevent his detecting the confusion he made between end and means. And the reader may understand how such a confusion might very naturally have maintained itself, if he reflects how very analogous is the pursuit of purely mathematical science by hundreds who care nothing for the applications of mathematics. Lying at the base of all physical science is a great and complex science of Quantity,—the one indispensable Instrument by

means of which Knowledge becomes Science (for Science is only quantitative knowledge); but so vast and so complex is this Instrument, that numerous intellects are constantly engaged in studying and perfecting it, never once withdrawn from it by any attempt at application. In a similar way Socrates, and for the most part Plato likewise, cared exclusively for Method; perfecting the Instrument of search, rather than seeking.

Although Socrates was not the first to teach the doctrine of the immortality of the soul, he was the first to give it a philosophical basis. Nor can we read without admiration the arguments by which he anticipated writers on Natural Theology, by pointing out the evidences of a beneficent Providence. Listen to Xenophon:—

'I will now relate the manner in which I once heard Socrates discoursing with Aristodemus, surnamed *the Little*, concerning the Deity; for observing that he neither prayed nor sacrificed to the Gods, but, on the contrary, ridiculed and laughed at those who did, he said to him:—

'Tell me, Aristodemus, is there any man whom you admire on account of his merit? Aristodemus having answered "Many,"—Name some of them, I pray you. I admire, said Aristodemus, Homer for his Epic poetry, Melanippides for his dithyrambics, Sophocles for tragedy, Polycletus for statuary, and Zeuxis for painting.

'But which seems to you most worthy of admiration, Aristodemus;—the artist who forms images void of motion and intelligence, or one who hath the skill to produce animals that are endued not only with activity, but understanding?—The latter, there can be no doubt, replied Aristodemus, provided the production was not the effect of chance, but of wisdom and contrivance.—But since there are many things, some of which we can easily see the use of, while we cannot say of others to what purpose they were produced, which of these, Aristodemus, do you suppose the work of wisdom?—It should seem the most reasonable to affirm it of those whose fitness and utility are so evidently apparent.

'But it is evidently apparent that He who at the beginning made man, endued him with senses because they were good for him; eyes, wherewith to behold whatever was visible; and ears, to hear whatever was to be heard; for say, Aristodemus, to what purpose should odours be prepared, if the sense of smelling had been denied? or why the distinctions of bitter and sweet, of savoury and unsavoury, unless a palate had been likewise given, conveniently placed, to

arbitrate between them and declare the difference? Is not that Providence, Aristodemus, in a most eminent manner conspicuous, which, because the eye of man is so delicate in its contexture, hath therefore prepared eyelids like doors, whereby to secure it, which extend of themselves whenever it is needful, and again close when sleep approaches? Are not these eyelids provided as it were with a fence on the edge of them, to keep off the wind and guard the eye? Even the eyebrow itself is not without its office, but, as a penthouse, is prepared to turn off the sweat, which, falling from the forehead, might enter and annoy that no less tender than astonishing part of us. Is it not to be admired that the ears should take in sounds of every sort, and yet are not too much filled by them? That the fore-teeth of the animal should be formed in such a manner as is evidently best suited for the cutting of its food, as those on the side for grinding it to pieces? That the mouth, through which this food is conveyed, should be placed so near the nose and eyes as to prevent the passing unnoticed whatever is unfit for nourishment; while Nature, on the contrary, hath set at a distance and concealed from the senses all that might disgust or any way offend them? And canst thou still doubt, Aristodemus, whether a disposition of parts like this should be the work of chance, or of wisdom and contrivance?—I have no longer any doubt, replied Aristodemus; and, indeed, the more I consider it, the more evident it appears to me that man must be the masterpiece of some great artificer; carrying along with it infinite marks of the love and favour of Him who hath thus formed it.

'And what thinkest thou, Aristodemus, of that desire in the individual which leads to the continuance of the species? Of that tenderness and affection in the female towards her young, so necessary for its preservation? Of that unremitted love of life, and dread of dissolution, which take such strong possession of us from the moment we begin to be? I think of them, answered Aristodemus, as so many regular operations of the same great and wise Artist, deliberately determining to preserve what he hath made.

'But, farther (unless thou desirest to ask me questions), seeing, Aristodemus, thou thyself art conscious of reason and intelligence, supposest thou there is no intelligence elsewhere? Thou knowest thy body to be a small part of that wide extended earth which thou everywhere beholdest: the moisture contained in it, thou also knowest to be a small portion of that mighty mass of waters, whereof seas themselves are but a part, while the rest of the elements con-

tribute out of their abundance to thy formation. It is the soul then alone, that intellectual part of us, which is come to thee by some lucky chance, from I know not where. If so be there is indeed no intelligence elsewhere: and we must be forced to confess, that this stupendous universe, with all the various bodies contained therein,—equally amazing, whether we consider their magnitude or number, whatever their use, whatever their order,—all have been produced, not by intelligence, but by chance!—It is with difficulty that I can suppose otherwise, returned Aristodemus; for I behold none of those Gods whom you speak of as making and governing all things; whereas I see the artists when at their work here among us.—Neither yet seest thou thy soul, Aristodemus, which, however, most assuredly governs thy body; although it may well seem, by thy manner of talking, that it is chance, and not reason, which governs thee.

'I do not despise the Gods, said Aristodemus: on the contrary, I conceive so highly of their excellence, as to suppose they stand in no need either of me or of my services.—Thou mistakest the matter, Aristodemus; the greater magnificence they have shown in their care of thee, so much the more honour and service thou owest them. —Be assured, said Aristodemus, if I once could be persuaded the Gods take care of man, I should want no monitor to remind me of my duty.—And canst thou doubt, Aristodemus, if the Gods take care of man? Hath not the glorious privilege of walking upright been alone bestowed on him, whereby he may with the better advantage survey what is around him, contemplate with more ease those splendid objects which are above, and avoid the numerous ills and inconveniences which would otherwise befall him? Other animals indeed they have provided with feet, by which they may remove from one place to another; but to man they have also given hands, with which he can form many things for his use, and make himself happier than creatures of any other kind. A tongue hath been bestowed on every other animal; but what animal, except man, hath the power of forming words with it, whereby to explain his thoughts, and make them intelligible to others?

'But it is not with respect to the body alone that the Gods have shown themselves thus bountiful to man. Their most excellent gift is that soul they have infused into him, which so far surpasses what is elsewhere to be found; for by what animal, except man, is even the existence of those Gods discovered, who have produced and still uphold, in such regular order, this beautiful and stupendous

frame of the universe? What other species of creature is to be found that can serve, that can adore them? What other animal is able, like man, to provide against the assaults of heat and cold, of thirst and hunger? that can lay up remedies for the time of sickness, and improve the strength nature has given by a well-proportioned exercise? that can receive like him information or instruction; or so happily keep in memory what he hath seen, and heard, and learnt? These things being so, who seeth not that man is, as it were, a God in the midst of this visible creation? so far doth he surpass, whether in the endowments of soul or body, all animals whatsoever that have been produced therein; for if the body of the ox had been joined to the mind of man, the acuteness of the latter would have stood him in small stead, while unable to execute the well-designed plan; nor would the human form have been of more use to the brute, so long as it remained destitute of understanding! But in thee, Aristodemus, hath been joined to a wonderful soul a body no less wonderful; and sayest thou, after this, the Gods take no thought for me? What wouldst thou then more to convince thee of their care?

'I would they should send and inform me, said Aristodemus, what things I ought or ought not to do, in like manner as thou sayest they frequently do to thee.—And what then, Aristodemus? supposest thou, that when the Gods give out some oracle to all the Athenians they mean it not for thee? If by their prodigies they declare aloud to all Greece, to all mankind, the things which shall befall them, are they dumb to thee alone? And art thou the only person whom they have placed beyond their care? Believest thou they would have wrought into the mind of man a persuasion of their being able to make him happy or miserable, if so be they had no such power? or would not even man himself, long ere this, have seen through the gross delusion? How is it, Aristodemus, thou rememberest or remarkest not, that the kingdoms and commonwealths most renowned as well for their wisdom as antiquity, are those whose piety and devotion hath been the most observable? and that even man himself is never so well disposed to serve the Deity as in that part of life when reason bears the greatest sway, and his judgment is supposed in its full strength and maturity? Consider, my Aristodemus, that the soul which resides in thy body can govern it at pleasure; why then may not the soul of the universe, which pervades and animates every part of it, govern it in like manner? If thine eye hath the power to take in many objects, and these

placed at no small distance from it, marvel not if the eye of the Deity can at one glance comprehend the whole. And as thou perceivest it not beyond thy ability to extend thy care, at the same time, to the concerns of Athens, Egypt, Sicily, why thinkest thou, my Aristodemus, that the Providence of God may not easily extend itself through the whole universe?

'As therefore, among men, we make best trial of the affection and gratitude of our neighbour by showing him kindness, and discover his wisdom by consulting him in his distress, do thou in like manner behave towards the Gods; and if thou wouldst experience what their wisdom and what their love, render thyself deserving the communication of some of those divine secrets which may not be penetrated by man, and are imparted to those alone who consult, who adore, who obey the Deity. Then shalt thou, my Aristodemus, understand there is a Being whose eye pierceth throughout all nature, and whose ear is open to every sound; extended to all places, extending through all time; and whose bounty and care can know no other bound than those fixed by his own creation.

'By this discourse, and others of the like nature, Socrates taught his friends that they were not only to forbear whatever was impious, unjust, or unbecoming before man; but even when alone they ought to have a regard to all their actions, since the Gods have their eyes continually upon us, and none of our designs can be concealed from them.'*

To this passage we must add another equally deserving of attention:—

'Even among all those deities who so liberally bestow on us good things, not one of them maketh himself an object of our sight. And He who raised this whole universe, and still upholds the mighty frame, who perfected every part of it in beauty and in goodness, suffering none of these parts to decay through age, but renewing them daily with unfading vigour, whereby they are able to execute whatever he ordains with that readiness and precision which surpass man's imagination; even He, the supreme God, who performeth all these wonders, still holds himself invisible, and it is only in his works that we are capable of admiring him. For consider, my Euthydemus, the sun, which seemeth as it were set forth to the view of all men, yet suffereth not itself to be too curiously examined; punishing those with blindness who too rashly venture so

* *Memorabilia*, i. 4.

to do; and those ministers of the Gods, whom they employ to execute their bidding, remain to us invisible; for though the thunderbolt is shot from on high, and breaketh in pieces whatever it findeth in its way, yet no one seeth it when it falls, when it strikes, or when it retires; neither are the winds discoverable to our sight, though we plainly behold the ravages they everywhere make, and with ease perceive what time they are rising. And if there be anything in man, my Euthydemus, partaking of the divine nature, it must surely be the soul which governs and directs him; yet no one considers this as an object of his sight. Learn therefore not to despise those things which you cannot see; judge of the greatness of the power by the effects which are produced, and reverence the Deity.'*

In conclusion, we must notice the vexed question of the Demon of Socrates. The notion most generally current is that he believed himself accompanied by a Dæmon, or Good Angel, who whispered counsels in his ear, and forewarned him on critical occasions. This has been adduced as evidence of his 'superstition;' and one writer —to be sure he is a Frenchman—makes it a text to prove that Socrates was mad.† Olympiodorus said that the Dæmon only meant Conscience, an explanation which, while it effaces the peculiar characteristics of the conception, is at the same time totally inapplicable to those cases when the 'Dæmonic voice' spoke to Socrates concerning the affairs of his friends, as we read in Plato's *Theages*. By other writers the Dæmon has been considered as purely allegorical.

The first point necessary to be distinctly understood is, that Socrates believed in no special Dæmon at all; and to translate Plutarch's treatise into *De Genio Socratis*, and hence to speak of *le démon de Socrate*, is gross misconception. Nowhere does Socrates, in Plato or Xenophon, speak of *a* genius or demon, but always of a *dæmonic something* (τὸ δαιμόνιον, δαιμόνιόν τι), or of a *sign*, a *voice*, a *divine sign*, a *divine voice*.‡ The second point necessary to be

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* *Memorabilia*, iv. 3.

† Lélut, *Du Démon de Socrate*, 1836. A new edition of this work appeared in 1856, and excited a 'sensation.'

‡ See passages cited in Zeller, ii. 28 (1846). Mr. Thompson in his note to Butler, i. 375, says:—'Clemens Alexandrinus in one passage *conjectures* that the δαιμόνιον of Socrates may have been a familiar genius. *Strom.* v. p. 592. This conjecture becomes an assertion in Lactantius (*Inst. D.* ii. 14), who converts the *dæmonium* into *dæmon*. Apuleius, it is true, had already led the way to this error in his treatise *De Deo Socratis*. It is adopted without scruple

remembered is, that this 'divine voice' was only an *occasional* manifestation, and exercised only a *restraining* influence. On the great critical occasions of his life, if the voice warned him against any step he was about to take, he unhesitatingly obeyed it; if the voice was unheard, he concluded that his proposed step was agreeable to the Gods. Thus, when on his trial, he refused to prepare any defence, because when he was about to begin it the voice restrained him, whereupon he resigned himself to the trial, convinced that if it were the pleasure of the Gods that he should die, he ought in no wise to struggle—if it were their pleasure that he should be set free, defence on his part was needless.

This is his own explicit statement; and surely in a Christian country abounding in examples of persons believing in direct intimations from above, there can be little difficulty in crediting such a statement. Socrates was a profoundly religious man; he was moreover, as we learn from Aristotle, a man of that bilious melancholic temperament* which has in all times been observed in persons of unusual religious fervour, such as is implied in those momentary exaltations of the mind which are mistaken for divine visits; and when the rush of thought came upon him with strange warning voices, he believed it was the Gods who spoke directly to him. Unless we conceive Socrates as a profoundly religious man, we shall misconceive the whole spirit of his life and teaching. In many respects he was a fanatic, but only in the noble sense of the word: a man, like Carlyle, intolerant, vehement, 'possessed' by his ideas, but, like Carlyle, preserved from all the worst consequences of such intolerance and possession by an immense humour and a tender heart. His Saturnine melancholy was relieved by laughter, which softened and humanized a spirit otherwise not less vehement than that of a Dominic or a Calvin. Thus strengthened and thus softened, Socrates stands out as the grandest figure in the world's Pantheon: the bravest, truest, simplest, wisest of mankind.

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by Augustine and other Christian writers; and, as might have been expected, by Ficinus and the earlier moderns, as Stanley and Dacier, in whose writings the *dæmonium* appears full-fledged as 'an attendant spirit' or 'good angel.'

* Φύσιν μελαγχολικήν, Aristotle, *Problem.* 30.

FIFTH EPOCH.

PARTIAL ADOPTION OF THE SOCRATIC METHOD.

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§ I. The Megaric School.—Euclid.

'SEVERAL philosophers,' says Cicero, 'drew from the conversations of Socrates very different results; and, according as each adopted views which harmonized with his own, they in their turn became heads of philosophical schools all differing amongst each other.' It is one of the peculiarities of a *philosophical* Method, to adapt itself indiscriminately to all sorts of systems. A *scientific* Method is confined to one: if various and opposing systems spring from it, they spring from an erroneous or imperfect application of it.

We must not be surprised therefore to find many contradictory systems claiming the parentage of Socrates. But we must be on our guard against supposing that this adaptation to various systems is a proof of the excellence of the Socratic Method. It is only a proof of its vagueness. It may be accepted as a sign of the great influence exercised upon succeeding philosophers; it is no sign that the influence was in the right direction.

As we said, Socrates had no school; he taught no system. He exhibited a Method; and this Method his hearers severally applied. Around him were men of various ages, various temperaments, and various opinions. He discoursed with each upon his own subject: with Xenophon on politics; with Theages or Theætetus on science; with Antisthenes on morals; with Ion on poetry. Some were *convinced* by him; others were merely *refuted*. The difference between the two is great. Of those who were convinced, the so-called Socratic Schools were formed; those who were only refuted became his enemies. But, of the former, some were naturally only more or less convinced; that is, were willing to adopt his opinions on some subjects, but remained stubborn on others. These are the imperfect Socratists. Amongst the latter was Euclid of Megara.

EUCLID, who must not be confounded with the great Mathematician, was born at Megara; date probably between 450 and 440 B. C. He had early imbibed a great love of philosophy, and had diligently studied the writings of Parmenides and the other Eleatics. From Zeno he acquired great facility in dialectics; and this continued to be his chief excellence even, after his acquaintance with Socrates, who reproved him for it as sophistical.

His delight in listening to Socrates was so great that he frequently exposed his life to do so. A decree was passed, in consequence of the enmity existing between Athens and Megara, that any inhabitant of Megara found in Athens should forfeit his life; Euclid, however, braved the penalty. He frequently came to Athens at night, disguised as a female. The distance was twenty miles. At the end of his journey he was recompensed by the fascinating conversation of Socrates; and he returned to meditate on the results of their arguments.

Brucker's supposition that a rupture was caused between them in consequence of Socrates having reproved Euclid's disputatious tendency, is wholly without foundation, and seems contradicted by the notorious fact that when, on the death of Socrates, Plato and the majority of the disciples retired to Megara, in fear of some popular outbreak of the Athenians, who were in a state of rage against all the philosopher's friends, Euclid received them well. Bound by the same ties of friendship towards the illustrious martyr, and sharing some of his opinions, the Socratists made some stay in Megara. Differences however arose, as they will amongst all communities of the kind. Plato and some others returned to Athens, as soon as the state of the public mind admitted their doing so with safety. The rest remained with Euclid.

'The character of the Megaric doctrine,' says Ritter, 'so far as it is possible to fix it in the defective state of our information, may be briefly given as the Eleatic view enlarged by the Socratic conviction of the *moral obligation, and the laws of scientific thought.*'

We confess our inability to comprehend this. In Euclid we have no hint of 'moral obligation;' in Socrates we fail to detect the 'laws of scientific thought.' If by the former Ritter means, that Euclid gave an Ethical and Socratic meaning to the Eleatic doctrine, he is correct; if by the latter he means, that Euclid adopted the Socratic Method of Induction and Definitions, he is hopelessly wrong; and, if this is not what he means by 'laws of scientific thought,' we are at a loss to understand him.

Euclid agreed with the Eleatics in maintaining that there was but One unalterable Being, to be known by Reason only. This One Being was not simply *The One;* neither was it simply Intelligence; it was *The Good.* This One Being received various names according to its various aspects: thus it was sometimes Wisdom (φρόνησις); sometimes God (θεός); at others Reason (νοῦς); and so forth. This One Good (ἕν τὸ ἀγαθόν) is the only Being that really *exists;* everything opposed to it has nothing but a phenomenal, transitory existence.

Such is the outline of his doctrine, as presented by Diogenes Laertius. In it the reader will have no difficulty in detecting both the Eleatic and Socratic elements. The conception of God as τὸ ἀγαθόν—the Good—is purely Socratic; and the denial of any existence to things opposed to the Good is an explanation of that passage in Plato's *Republic,* where Socrates declares God not to be the author of all things, but only of such as are good.*

The Megaric doctrine is therefore the Eleatic doctrine, with an Ethical tendency borrowed from Socrates, who taught that virtue was not any partial cultivation of the human mind, but constitutes the true and entire essence of the rational man, and indeed of the whole universe. The identification of Virtue with Wisdom is also Socratic.

With respect to Euclid's dialectics there is one point, often alluded to, variously interpreted, and which is in direct opposition to the Method of Socrates. In refuting his adversaries he did not attack the premisses, but the conclusion.† This is certainly not the manner of Socrates, who always managed to draw new conclusions from old premisses, and who, as Xenophon says, proceeded from the generally known to the less known. As if to mark this distinction more completely, we are told that Euclid rejected the *analogical* mode of reasoning (τὸν διὰ παραβολῆς λόγον). If, said he, the things compared are alike, it is better to confine the attention to that originally in question; if the things compared are unlike, there must be error in the conclusion. This precept strikes into the weakness of Socrates' method of induction; which was a species of analogical reasoning not of the highest order.

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* Μὴ πάντων αἴτιον τὸν θεὸν, ἀλλὰ τῶν ἀγαθῶν.—ii. 100.

† *Diog. Laert.* ii. 107. This is paraphrased by Enfield into the following contradictory statement:—'He judged that legitimate argumentation consists in deducing fair conclusions from acknowledged premisses.'—*Hist. of Phil.* i. 199.

In dialectics therefore we see Euclid following out the Eleatic tendency, and carrying forward the speculations of Zeno. It was this portion of his doctrine that his immediate followers, Eubulides, Diodorus, and Alexinus, undertook to carry out. The Socratic element was further developed by Stilpo.

'The majority of the later members of the Megaric School,' says Ritter, 'are famous either for the refutation of opposite doctrines, or for the invention and application of certain fallacies; on which account they were occasionally called Eristici and Dialectici. Still it may be presumed that they did not employ these fallacies for the purposes of delusion, but of instructing rash and hasty thinkers, and exemplifying the superficial vanity of common opinion. At all events it is certain that they were mainly occupied with the forms of thought, more perhaps with a view to the discovery of particular rules, than to the foundation of a scientific system or method.'

§ II. The Cyrenaic School.—Aristippus.

Among the 'imperfect Socratists' we must rank Aristippus, the founder of the Cyrenaic School, which borrowed its name from the birthplace of its founder—Cyrene, in Africa.

Aristippus was descended from wealthy and distinguished parents, and was consequently thrown into the vortex of luxurious debauchery which then characterized the colony of Minyæ. He came over to Greece to attend the Olympic games: there he heard so much of the wisdom of Socrates that he determined on listening to his enchanting discourse. He made Socrates an offer of a large sum of money, which, as usual, was declined. The great Talker did not accept money; but he willingly admitted Aristippus among the number of his disciples. It is commonly asserted that the pupil did not agree well with his master, and that his fondness for pleasure was offensive to Socrates. There is no good authority for such an assertion. He remained with Socrates until the execution of the latter; and there was no bond on either side to have prevented their separation as soon as they disagreed. The impression seems to have originated in the discussion reported by Xenophon,* wherein Aristippus expresses his political indifference, and Socrates, by an exaggerated extension of logic, endeavours to prove his views to be absurd. But this is simply a divergence of opinion, such as

* *Memorabilia*, ii. 1.

must have existed between Socrates and many of his followers. It merely shows that Aristippus thought for himself. Socrates with such men as Aristippus and Alcibiades reminds one of Dr. Johnson with the 'young bloods' Topham Beauclerk and Bennet Langton: he was wise enough and tolerant enough not to allow his virtue to be scandalized by their love of pleasure.

From Athens he went to Ægina, where he met with Laïs, the world-renowned courtesan, whom he accompanied to Corinth. On his way from Corinth to Asia he was shipwrecked on the island of Rhodes. On the sea-coast he discovered a geometrical diagram, and exclaimed, 'Take courage; I see here the footsteps of men.' On arriving at the principal town, he managed to procure for himself and friends a hospitable reception. He used to say, 'Send two men amongst strangers, and you will see the advantage of the philosopher.'

Aristippus was one of those

'Children of the Sun, whose blood is fire;'

but to strong sensual passions he united a calm regulative intellect. Prone to luxury, he avoided excess. Easy and careless in ordinary affairs, he had great dominion over his desires. Pleasure was his grand object in life; but he knew how to temper enjoyment with moderation. In disposition he was easy and yielding, a 'fellow of infinite mirth,' a philosopher whose brow was never 'sicklied o'er with the pale cast of thought.' He had none of that dignity which mistakes a stiff neck for healthy virtue. He had no sternness. Gay, brilliant, careless, and enjoying, he became the ornament and delight of the Court of Dionysius;—that Court already illustrious by the splendid genius of Plato and the rigid abstinence of Diogenes. The grave deportment of Plato and the savage virtue of Diogenes had less charm for the Tyrant than the easy gaiety of Aristippus, whose very vices were elegant. His ready wit was often put to the test. On one occasion three *hetæræ* were presented for him to make a choice: he took them all three, observing that it had been fatal even to Paris to make a choice. On another occasion, in a dispute with Æschines, who was becoming violent, he said: 'Let us give over. We have quarrelled, it is true; but I, as your senior, have a right to claim the *precedency in the reconciliation.*'* In his old-age he appears to have returned to Cyrene, and there opened his school.

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* Several of his repartees are recorded by Laertius. We add the best of

His philosophy, as Hegel remarks, takes its colour from his personality. So individual is it, that we should have passed it over entirely, had it not been a precursor of Epicureanism. Its relation to Socrates is also important.

In the only passage in which, as far as we know, Aristotle* mentions Aristippus, he speaks of him as a Sophist. What does this mean? Was he one of the professed Sophists? No. It means, we believe, that he shared the opinion of the Sophists respecting the uncertainty of Science. That he did share this opinion is evident from Sextus Empiricus,† who details his reasons: such as, that external objects make different impressions on different senses; the names which we impose on these objects express our sensations, but do not express the things; there is no *criterium* of truth; each judges according to his impressions; none judge correctly.

In so far he was a Sophist; but, as the disciple of Socrates, he learned that the *criterium* of truth must be sought within. He dismissed with contempt all physical speculations, as subjects beyond human comprehension, and concentrated his researches upon the moral constitution of man.

In so far he was a Socratist. But, although he took his main direction from Socrates, yet his own individuality quickly turned him into bye-paths which his master would have shunned. His was not a scientific intellect. Logical deduction, which was the rigorous process of his master, suited neither his views nor his disposition. He was averse from abstract speculations. His tendency was directly towards the concrete. Hence, while Socrates was preaching about The Good, Aristippus wished to specify what it was; and resolved it into Pleasure. It was the pith and kernel of Socrates' Ethical system, that Happiness was the aim and desire of all men —the motor of all action; men only erred because of erroneous

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them:—Scinus, the treasurer of Dionysius, a man of low character but immense wealth, once showed Aristippus over his house. While he was expatiating on the splendour of every part, even to the floors, the philosopher spat in his face. Scinus was furious. 'Pardon me,' exclaimed Aristippus, 'there was no other place where I could have spat with decency.' One day, in interceding with the Tyrant for a friend, he threw himself on his knees. Being reproached for such want of dignity, he answered, 'Is it my fault if Dionysius has his ears in his feet?' One day he asked the Tyrant for some money. Dionysius made him own that a philosopher had no need of money. 'Give, give,' replied Aristippus, 'and we will settle the question at once.' Dionysius gave. '*Now*,' said the philosopher, 'I have no need of money.'

* *Metaph.* iii. 2. † *Adv. Math.* vii. 173.

notions of what constituted Happiness. Thus the wise man alone knew that to endure an injury was better than to inflict it; he alone knew that immoderate gratification of the senses, being followed by misery, did not constitute Happiness, but the contrary. Aristippus thought this too vague. He not only reduced this general idea to a more specific one, namely, Pleasure; he endeavoured to show how truth had its only *criterium* in the sensation of pleasure or of pain. Of that which is without us we can know nothing truly; we only know through our senses, and our senses deceive us with respect to objects. But our senses do not deceive us with respect to our sensations. We may not perceive things truly; but it is true that we perceive. We may doubt respecting external objects; we cannot doubt respecting our sensations. Amongst those sensations we naturally seek the repetition of such as are pleasurable, and shun those that are painful.

Pleasure, then, as the only positive good, and as the only positive test of what was good, he declared to be the end of life; but, inasmuch as for constant pleasure the soul must preserve its dominion over desires, this pleasure was only another form of the Socratic temperance. It is distinguished from the Socratic conception of Pleasure, however, in being positive, and not merely the gratification of a want. In the *Phædo*, Socrates, on being released from his chains, reflects upon the intimate connection of pleasure and pain; and calls the absence of pain pleasure. Aristippus, on the contrary, taught that pleasure is not the mere removal of pain: they are both positive emotions; non-pleasure and non-pain are not emotions, but as it were the sleep of the soul.*

In the application of this doctrine to ethics, Aristippus betrays both his Sophistic and Socratic education. With the Sophists he regarded pleasure and pain as the proper *criteria* of actions; no action being in itself either good or bad, but only such according to convention. With Socrates, however, he regarded the advantages acquired by injustice to be trifling; whereas the evils and apprehensions of punishment are considerable; and pleasure was the result, not of individual prosperity alone, but of the welfare of the whole State.

In reviewing the philosophy, such as it was, of Aristippus, we cannot fail to be struck with the manifest influence of Socrates; although his method was not followed, we see the ethical tendency

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* Diog. Laert. ii. 89.

predominating. In the Megaric School the abstract idea of The Good (τὸ ἀγαθόν) of Socrates, was grounded on the Eleatic conception of The One. In the Cyrenaic, the abstract conception was reduced to the concrete, Pleasure; and this became the only ground of certitude, and morals the only science. In the Cynic School we shall see a still further development in this direction.

§ III. The Cynics.—Antisthenes and Diogenes.

Cynicism is an imposing blasphemy. It imposed on antiquity; it has imposed on many modern imaginations by the energy of its self-denials; but it is a 'blasphemy against the divine beauty of life,' blasphemy against the divinity of man. To lead the life of a Dog is *not* the vocation of Man.

Nevertheless there were some points both in the characters and doctrines of the founders of this School which may justly claim the admiration of mankind. Their contemporaries regarded them with feelings mingled with awe. We at least may pay a tribute to their energy.

Antisthenes was born at Athens, of a Phrygian mother. In early life he distinguished himself at the battle of Tanagra. After this he studied under Gorgias, the Sophist, and established a school for himself; but, captivated by the practical wisdom of Socrates, he ceased to teach, and became once more a pupil; nay more, he persuaded all his pupils to come with him to Socrates, and there learn true wisdom. This is genuine modesty, such as philosophers have rarely exhibited. He was then somewhat advanced in life; his opinions on many points were too deeply rooted to be exchanged for others; but the tendency of the Socratic philosophy towards Ethics, and the character of that system as leading to the moral perfection of man, seemed entirely to captivate him. It will be remembered that Socrates did not teach positive doctrines; he enabled each earnest thinker to evolve a doctrine for himself. All Socrates did, was to give an impulsion in a certain direction, and to furnish a certain Method. His real disciples accepted the Method; his imperfect disciples only accepted the impulsion. Antisthenes was of the latter. Accordingly, his system was essentially personal. He was stern, and his doctrine was rigid; he was proud, and his doctrine was haughty; he was cold, and his doctrine was unsympathizing and self-isolating; he was brave, and his doctrine was a battle. The effeminacy of the luxurious he despised; the baseness

of courtiers and flatterers he hated. He worshiped Virtue; but it was Virtue sometimes ferocious and unbending.

Even whilst with Socrates he displayed his contempt of ordinary usages, and his pride in differing from other men. He used to appear in a threadbare cloak, with ostentatious poverty. Socrates saw through it all, and exclaimed, 'I see your vanity, Antisthenes, peering through holes in your cloak!' How different was this from Socrates! He, too, had inured himself to poverty, to heat and to cold, in order that he might bear the chances of fortune; but he made no virtue of being ragged, hungry, and cold. Antisthenes thought he could only preserve his virtue by becoming a savage. He wore no garment except a coarse cloak; allowed his beard to grow; carried a wallet and a staff; and renounced all diet but the simplest. His manners corresponded to his appearance. Stern, reproachful, and bitter in his language; careless and indecent in his gestures. His contempt of all sensual enjoyment was expressed in his saying, 'I would rather be mad than sensual!'*

On the death of Socrates he formed a school, and chose for his place of meeting a public place in that quarter of Athens called the Cynosarges, from which some say the sect of Cynics derives its name; others derive it from the snarling propensities of the founder, who was frequently called 'The Dog.' As he grew old, his gloomy temper became morose: he became so insupportable that all his scholars left him, except Diogenes of Sinope, who was with him at his death. In his last agony, Diogenes asked him whether he needed a friend. 'Will a friend release me from this pain?' he replied. Diogenes gave him a dagger, saying, 'This will.' 'I wish to be freed from pain, not from life,' was the reply.

The contempt he uniformly expressed for mankind may be read in two of his sayings. Being asked, what was the peculiar advantage to be derived from philosophy, he answered, 'It enables me to keep company with myself.' Being told that he was greatly praised by many, 'Have I done anything *wrong*, then, that I am praised?' he asked.†

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* It is thus we would interpret Diog. Laert. vi. 3:—Μανείην μᾶλλον ἢ ἡσθείην. Ritter gives this version:—'I had rather go mad than experience pleasure;' which is an outrageous sentiment.

† Dr. Enfield, who generally manages to introduce some blunder into every page, has spoiled this repartee, by giving it as a reply to the praise of a *bad* man. Yet the language of Diogenes Laertius is very explicit:—Πολλοί σε ἐπαινοῦσι (vi. 8).

Diogenes of Sinope is generally remembered as the representative of Cynicism; probably because more anecdotes of his life have descended to us. He was the son of a banker at Sinope, who was convicted of debasing the coin; an affair in which the son was also supposed to have been implicated. Diogenes fled to Athens. From the heights of splendour and extravagance, he found himself reduced to squalid poverty. The magnificence of poverty, which Antisthenes proclaimed,* attracted him. Poor, he was ready to embrace the philosophy of poverty; an outcast, he was ready to isolate himself from society; branded with disgrace, he was ready to shelter himself under a philosophy which branded all society. Having in his own person experienced how little wealth and luxury can do for the happiness of man, he was the more inclined to try the converse; having experienced how wealth prompts to vice, and how desires generate desires, he was willing to try the efficacy of poverty and virtue. He went to Antisthenes; was refused. He continued to offer himself to the Cynic as a scholar; the Cynic raised his knotty staff, and threatened to strike him if he did not depart. 'Strike!' replied Diogenes; 'you will not find a stick hard enough to conquer my perseverance.' Antisthenes, overcome, accepted him as a pupil.

To live a life of virtue was henceforward his sole aim. That virtue was Cynicism. It consisted in the complete renunciation of all luxury—the subjugation of all sensual desires. It was a war carried on by the Mind against the Body. As with the Ascetics of a later day, the basis of a pure life was thought to be the annihilation of the Body; the nearer any one approached to such a suicide, the nearer he was to the ideal of virtue. The Body was vile, filthy, degraded, and degrading; it was the curse of man; it was the clog upon the free development of Mind; it was wrestled with, hated, and despised. This beautiful Body, so richly endowed for enjoyment, was regarded as the 'sink of all iniquity.'

Accordingly, Diogenes limited his desires to necessities. He ate little; and what he ate was of the coarsest. He tried to live upon raw meat and unboiled vegetables; but failed. His dress consisted solely of a cloak: when he asked Antisthenes for a shirt, he was told to fold his cloak in two; he did so. A wallet and a huge stick completed his accoutrements. Seeing a little boy drinking water out of his scooped hand, he threw away his cup, declaring it super-

* See the *Banquet* of Xenophon.

fluous. He slept under the marble porticoes of the buildings, or in his celebrated Tub, which was his place of residence. He took his meals in public. In public he performed all those actions which decency has condemned to privacy. Decency of every kind he studiously outraged. It was a part of his system to do so. Everything, not in itself improper, ought, he said, to be performed publicly. Besides, he was wont to annoy people with indecent gestures; had he a philosophical reason for that also?

Doubts have been expressed respecting his Tub, which, it is thought, was only an occasional residence, and used by him as expressive of his contempt for luxury. We incline, however, to the tradition. It is in keeping with all we know of the man; and that a Tub could suffice for a domicile we may guess from Aristophanes.*

It is not difficult to imagine the effect created by the Cynics in the gay, luxurious city of Athens. There the climate, no less than the prevailing manners, incited every one to enjoyment. The Cynics told them that enjoyment was unworthy of men; that there were higher and purer things for man to seek. To the polished elegance of Athenian manners the Cynics opposed the most brutal coarseness they could assume. To the friendly flatteries of conversation they opposed the bitterest pungencies of malevolent frankness. They despised all men; and told them so.

Now, although we cannot but regard Cynicism as a very preposterous doctrine—as a feeble solution of the great problem of morals, and not a very amiable feebleness—we admit that it required some great qualities in its upholders. It required a great rude energy; a fanatical logicality of mind; a power over self,—narrow it may be, but still a power. These qualities are not common qualities, and therefore they command respect. Any deviation from the beaten path implies a certain resolution; a steady and consistent deviation implies force. All men respect force. The power of subjugating ordinary desires to one remote but calculated end, always impresses men with a sense of unusual power. Few are aware that to *regulate* desires is more difficult than to *subjugate* them—requires greater power of mind, greater will, greater constancy. Yet every one knows that abstinence is easier than tem-

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* *Knights*, 793: the people are there spoken of as having been forced to live, during the war, in 'pigeon-holes and corners of turrets:' γυπαρίοις καὶ πυργιδίοις; unless, indeed, this is purely a metaphorical expression.

perance: on the same principle, it is easier to be a Cynic than a wise and virtuous Epicurean.

That which prevents our feeling the respect for the Cynics which the ancients seem to have felt, and which, indeed, some portions of the Cynical doctrine would otherwise induce us to feel, is the studious and uncalled-for outrages on common decency and humanity which Diogenes, especially, perpetrated. All the anecdotes that have come down to us seem to reveal a snarling and malevolent spirit, worshiping Virtue only because it was opposed to the vices of contemporaries; taking a pride in poverty and simplicity only because others sought wealth and luxury. It may be well to raise an earnest protest against the vices of one's age; but it is not well to bring virtue into discredit by the manner of the protest. Doubtless the Athenians needed reproof and reformation, and some exaggeration on the opposite side might have been allowed to the reformers. But Diogenes was so feeble in doctrine, so brutal in manner, that we doubt whether the debauchery of the first profligate in that profligate city were more reprehensible than the debauchery of pride which disgraced the Cynic. The whole character of the man is exhibited in one anecdote. Plato had given a splendid entertainment to some friends. Diogenes entered, unbidden, and stamping on the rich carpets, said, 'Thus I trample on the pride of Plato;' whereupon Plato admirably replied, 'With greater pride, O Diogenes.'

Diogenes, doubtless, practised great abstinence. He made a virtue of his necessity; and, being poor, resolved to be ostentatiously poor. The ostentation, being novel, was mistaken for something greater than it was; being in contradiction to the universal tendency of his contemporaries, it was supposed to spring from higher motives. There are men who bear poverty meekly; there are men who look upon wealth without envy, certain that wealth does not give happiness; there are men whose souls are so fixed on higher things as utterly to disregard the pomps and shows of the world; but none of these *despise* wealth, they *disregard* it; none of these *display* their feelings, they are content to act upon them. The virtue which is loud, noisy, ostentatious, and self-affirmative, looks very like an obtrusive egoism. And this was the virtue of the Cynics. Pretending to reform mankind, it began by blaspheming humanity; pretending to correct the effeminacies of the age, it studiously outraged all the decencies of life. Eluding the real difficulty of the problem, it pretended to solve it by unabashed insolence.

In his old-age Diogenes was taken captive by pirates, who carried him to Crete, and exposed him for sale as a slave. On being asked what he could do, he replied, 'Govern men: sell me, therefore, to one who wants a master.' Xeniades, a wealthy Corinthian, struck with this reply, purchased him, and, on returning to Corinth, gave him his liberty and consigned his children to his education. The children were taught to be Cynics, much to their own satisfaction. It was during this period that his world-renowned interview with Alexander took place. The prince, surprised at not seeing Diogenes joining the crowd of his flatterers, went to see him. He found the Cynic sitting in his tub, basking in the sun. 'I am Alexander the Great,' said he. 'I am Diogenes the Cynic,' was the reply. Alexander then asked him if there was anything he could do for him. 'Yes, stand aside from between me and the sun.' Surprised at such indifference to princely favour—an indifference so strikingly contrasted with everything he could hitherto have witnessed—he exclaimed, 'Were I not Alexander, I would be Diogenes!' One day, being brought before the King, and being asked who he was, Diogenes replied, 'A spy on your cupidity;' language, the boldness of which must have gained him universal admiration, because implying great singularity as well as force of character.

Singularity and Insolence may be regarded as his grand characteristics. Both of these are exemplified in the anecdote of his lighting a lamp in the daytime, and peering about the streets as if earnestly seeking something: being asked what he sought, he replied, 'A Man.' The point of this story is lost in the usual version, which makes him seek 'an honest man.' The words in Laertius are simply, *ἄνθρωπον ζητῶ*—'I seek a man.' Diogenes did not seek honesty; he wanted to find a Man, in whom honesty would be included with many other qualities. It was his constant reproach to his contemporaries, that they had no manhood. He said he had never seen men; at Sparta he had seen children; at Athens, women. One day he called out, 'Approach, all men!' When some approached, he beat them back with his club, saying, 'I called for men; ye are excrements.'

Thus he lived till his ninetieth year, bitter, brutal, ostentatious, and abstemious; disgracing the title of 'The Dog' (for a dog has affection, gratitude, sympathy, and caressing manners), yet growling over his unenvied virtue as a cur growls over his meatless bone, for ever snarling and snapping without occasion; an object of uni-

versal attention, and, from many quarters, of unfeigned admiration. One day his friends went to see him. On arriving at the portico under which he was wont to sleep, they found him still lying on the ground wrapped in his cloak. He seemed to sleep. They pushed aside the folds of his cloak: he was dead.*

The Doctrine of the Cynics may be briefly expounded. Antisthenes, as the disciple of Gorgias, was imbued with the sophistical principles respecting Science; principles which his acquaintance with Socrates did not alter. He maintained that Science was impossible. He utterly rejected the Socratic notion of Definitions. He said that a Definition was nothing but a *series of words* (λόγον μακρόν, 'a long discourse'); for which Aristotle calls him an ignoramus.† To the Socratic notion of a Definition, as including the essence of a thing, he opposed the Sophistic notion of a Definition, as expressing a purely subjective relation. You can only express qualities, not essences; you can call a thing silver, but you cannot say in what it consists. Your definition is only verbal: hence the first step in education should be the study of words.‡

What was the consequence of this scepticism? The consequence was, that the Cynics answered arguments by facts. When some one was arguing in support of Zeno of Elea's notion respecting the impossibility of movement, Diogenes rose and walked. Definitions might prove that there was no motion; but definitions were only verbal, and could be answered by facts.

This refuge found in common-sense against the assaults of logic, enabled the Cynics to shape a doctrine of morals which had some certain basis. As they answered arguments by facts, so they made actions take the place of precepts. Instead of speculating about virtue, they endeavoured to be virtuous. Socrates had brought philosophy from the clouds; the Cynics endeavoured to bring it into daily practice. Their personal dispositions gave the peculiar colouring to their doctrine, as that of Aristippus had done to the Cyrenaic.

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* It was thought that he had committed suicide by holding his breath,—a physical impossibility. Other versions of the cause of his death were current in antiquity; one of them seems consistent with his character: it makes him die in consequence of devouring a neat's foot raw.

† Ἀπαίδευτος.—*Metaph.* viii. 3.

‡ Arrian, *Epictet.*, Diss. i. 17, quoted in Ritter and Preller, *Hist. Philos. Græco-Romanæ ex fontium locis contexta* (Hamburg, 1838), p. 174.

SIXTH EPOCH.

COMPLETE ADOPTION AND APPLICATION OF THE SOCRATIC METHOD.—PLATO.

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§ I. Life of Plato.

PERHAPS of all ancient writers, Plato's name is the best known. Homer himself is unknown to many who have some dim notion of Plato as the originator of the so-called Platonic love. There is a great and wide-spread interest about the Grecian sage. The young and romantic have strange, romantic ideas of him. 'The general reader,' especially if a dabbler in fashionable philosophy, or rather in the philosophy current in fashionable novels, has a very exalted notion of him as the 'great Idealist.' The theological reader regards him with affection, as the stout and eloquent upholder of the doctrine of the immateriality and immortality of the soul. The literary critic often regards him as the type of metaphysical eloquence, and classes with him every vapoury, mystical, metaphorical writer of 'poetical philosophy.'

Now, except that of the theologian, these notions, derived at second-hand, are all false. It would be idle to inquire how such extravagant opinions came into circulation. Enough for us that they are false. Plato was anything but 'dreamy;' anything but 'an Idealist,' as that phrase is usually understood. He was an inveterate dialectician, a severe and abstract thinker, and a great quibbler. His metaphysics are of a nature to frighten away all but the most determined students, so abstract and so subtle are they. His morals and politics, so far from having any romantic tinge, are the *ne plus ultra* of logical severity; hard, uncompromising, and above humanity. In a word, Plato the man was almost completely absorbed in Plato the Dialectician: he had learned to look upon human passion as a disease, and human pleasure as a frivolity. The only thing worth living for was truth. Dialectics was the noblest exercise of humanity.

Even the notions respecting his style are erroneous. It is not

the 'poetical' metaphorical style usually asserted. It has unmistakable beauties, but not the beauties popularly attributed to it. Its immense power is dramatic power. The best dialogues are inimitable scenes of comedy. Character, banter, irony, and animation are there, but scarcely any imagery, and that seldom beautiful.* His object was to refute or to convince; his illustrations are therefore homely. When fit occasion arrives he can be eloquent and familiar. He clothes some myths in language of splendid beauty; and there are many felicitous passages scattered through the dreary waste of dialectical quibbling and obscurity. These passages have been quoted by various writers; hence readers have supposed that Plato always wrote in such strains. But very fine passages are also to be found in Aristotle, who is nevertheless a repulsive writer on the whole.

In truth, Plato is a very difficult, and, as far as regards matter, somewhat tedious writer; this is the reason of his being so little read: for we must not be deceived by the many editions. He is often mentioned and often quoted at second-hand; but he is rarely read, except by professed scholars and critics. Men of culture usually attack a dialogue or two out of curiosity. Their curiosity seldom inspirits them to further progress. The difficulty of mastering the ideas, and their unsatisfactory nature when mastered, are barriers to any general acquaintance with Plato. But those who persevere believe themselves repaid; the journey has been difficult, but it was worth performing.

Aristocles, surnamed Plato (the broad-browed),† was the son of Ariston and Perictione, was born at Athens or Ægina, Ol. 87.3, on the 7th Thargelion (about the middle of May, B. C. 430). His

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* 'Even upon abstract subjects, whether moral, metaphysical, or mathematical, the language of Plato is clear as the running stream; and in simplicity and sweetness vies with the humble violet which perfumes the vale.'—*Dr. Enfield, Hist. of Phil.* ii. 221. Whenever you meet with such trash as this, be dubious that the writer of it ever read Plato. Aristotle capitally describes Plato's style as 'a middle species of diction between verse and prose.' It has rhythm rather than imagery.

† Some writers incline to the opinion that 'Plato' was the epithet of broad-browed; others of broad-shouldered; others, again, that it was expressive of the breadth of his style. This last is absurd. The author of the article *Plato* in the *Penny Cyclopædia* pronounces all the above explanations to be 'idle, as the name of Plato was of common occurrence among the Athenians of that time.' But surely Aristocles was not endowed with this surname of Plato without cause? Unless he derived the name from a relation, he must have derived it from one of the above causes.

childhood and youth consequently synchronize with the Peloponnesian war, the most active and brilliant period of Grecian thought and action. His lineage was illustrious: on the maternal side he was connected with Solon.

So great a name could not escape becoming the nucleus of many fables, and we find the later historians gravely repeating various miraculous events connected with him. He was said to be the child of Apollo, his mother a virgin. Ariston, though betrothed to Perictione, delayed his marriage because Apollo had appeared to him in a dream, and told him that she was with child.

Plato's education was excellent; and in gymnastics he was sufficiently skilled to contend at the Pythian and Isthmian games. Like a true Greek, he attached extreme importance to gymnastics, as doing for the body what dialectics did for the mind; and, like a true Greek, he did not suffer these corporeal exercises to absorb all his time and attention: poetry, music, and rhetoric were assiduously cultivated, and with some success. He wrote an epic poem, besides some tragedies, dithyrambics, lyrics, and epigrams. The epic he is said to have burned in a fit of despair on comparing it with Homer. The tragedies he burned on becoming acquainted with Socrates. The epigrams have been partially preserved. One of them is very beautiful:—

Ἀστέρας εἰσαθρεῖς, ἀστὴρ ἐμός· εἴθε γενοίμην
Οὐρανός, ὡς πολλοῖς ὄμμασιν εἴς σε βλέπω.

'Thou gazest on the stars, my Life! Ah! gladly would I be
Yon starry skies, with thousand eyes, that I might gaze on thee!'

His studies of poetry were mingled with those of philosophy, which he must have cultivated early; for we know that he was only twenty when he first went to Socrates, and we also know that he had been taught by Cratylus before he knew Socrates. Early he must have felt

'A presence that disturbed him with the joy
Of elevated thoughts; a sense sublime
Of something far more deeply interfused,
Whose dwelling is the light of setting suns,
And the round ocean, and the living air,
And the blue sky, and in the mind of man:
A motion and a spirit that impels
All thinking things, all objects of all thought,
And rolls through all things.'

A deep and meditative spirit led him to question Nature in her secret haunts. The sombre philosophy of Heraclitus suited well

with his melancholy youth. Scepticism, which was the fever of that age, had seized on Plato as on all the rest. This scepticism, together with an imperious craving for belief which struggled with the scepticism, found breathing-room in the doctrines of Socrates; and the young scholar learned that without impugning the justice of his doubts, he could escape them by seeking Truth elsewhere.

He remained with Socrates ten years, and was separated from him only by death. He attended his beloved master during the trial; undertook to plead his cause; indeed, began a speech which the violence of the judges would not allow him to continue; and pressed his master to accept a sum of money sufficient to purchase his life.

On the death of Socrates he went to Megara to visit Euclid, as we mentioned before. From thence he proceeded to Cyrene, where he was instructed in mathematics by Theodorus, whom he had known in Athens, if we may credit the *Theætetus*, where Theodorus is represented discoursing with Socrates. From Cyrene he went to Egypt, in company, it is said, with Euripides. There is very little authority for this visit, and that Euripides was his companion is not very probable, because Euripides had been dead some years. The influence of Egypt on Plato has certainly been exaggerated. There is no trace, in his works, of Egyptian research. 'All he tells us of Egypt indicates at most a very scanty acquaintance with the subject; and although he praises the industry of the priests, his estimate of their scientific attainments is far from favourable.'*

In these travels the broad-browed meditative man greatly enlarged the Socratic doctrine, and indeed introduced antagonistic elements. But he strictly preserved the Socratic Method. 'Whilst studious youth,' says Valerius Maximus, 'were crowding to Athens from every quarter in search of Plato for their master, that philosopher was wandering along the winding banks of the Nile, or the vast plains of a barbarous country, himself a disciple to the old men of Egypt.'

He returned at last, and eager scholars flocked around him. With a mind richly stored by foreign travel and constant meditation, he began to emulate his beloved master, and devote himself to teaching. Like Socrates, he taught gratuitously. The Academia, a public garden in the neighbourhood of Athens, was the favourite resort of Plato, and gave its name to the school which he founded.

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* Ritter, ii. 147.

This garden was planted with lofty plane-trees, and adorned with temples and statues; a gentle stream rolled through it, with

'A sound as of a hidden brook
In the leafy month of June,
Which to the sleeping woods all night
Singeth a quiet tune.'

It was a delicious retreat, 'for contemplation framed.' The longing thoughts of posterity have often hovered round it as the centre of myriad associations. Poets have sung of it. Philosophers have sighed for it.

'See there the olive grove of Academe,
Plato's retirement, where the Attic bird
Thrills her thick-warbled notes the summer long.'

In such a spot, where the sound

'Of bees' industrious murmur oft invites
To studious musing,'

one would imagine none but the Graces could enter; and coupling this with the poetical beauties of Plato's *Dialogues,* people have supposed that the lessons in the Academy were magnificent outbursts of eloquence and imagery upon philosophical subjects.

Nothing can be further from the truth. The lectures were hard exercises of the thinking faculty, and demanded great power of continued abstraction. Whatever graces might have adorned Plato's compositions, his lectures were not literary, but dialectical exercises.

Ritter thinks differently. 'His school was less a school of hardy deeds for all, than of polished culture for the higher classes, who had no other object than to enhance the enjoyment of their privileges and wealth.' Does this mean that Plato did not teach Stoicism? If so, it is a truism; if not, a falsism; since what has Dialectics to do with 'hardy deeds'? We are then informed that it was 'a school of polished culture for the higher classes:' a mere assertion, and a questionable one. The 'higher classes' principally frequented the Sophists; besides, Plato's lectures were gratuitous, and every free citizen might attend them, on certain conditions. There were no aristocratical exclusives in Athens; there were no 'polished circles,' with a culture differing from that of the other free citizens. When Ritter says that their object was 'to enhance the enjoyment of their privileges and wealth,' we are at a loss to conceive his meaning, because we do not see how they were to do this by listening to speculations on essences and archetypal Ideas; the more so as Ritter himself tells us Plato's views of justice and honour were 'wholly impracticable in the corrupt state of the

Athenian constitution; and all empirical knowledge, such as is indispensable to a politician, was in his view contemptible.'*

Whatever their purpose, the Lectures were severe trials to the capacities of students; and their purely argumentative nature may have originated the story respecting the inscription over the door of his Academy, '*Let none but Geometricians enter here;*' a story which is very widely circulated, although wholly without good evidence.† The story is in direct contradiction to Plato's views of Geometry, which he excludes from Philosophy, because it assumes its axioms without proof, and because it occupies a middle position between Opinion and Philosophy, more accurate than the one, but less certain than the other.‡

In his fortieth year Plato made his first visit to Sicily. It was then he became acquainted with Dionysius I., the Tyrant of Syracuse, Dion, his brother-in-law, and Dionysius II. With Dionysius I. he soon came to a rupture, owing to his political opinions; and he so offended the Tyrant, that his life was threatened. Dion however interceded for him; and the Tyrant spared his life, but commissioned Pollis, the Spartan Ambassador, in whose ship Plato was to return, to sell him as a slave. He was sold accordingly. Anniceris of Cyrene bought him, and immediately set him free. On his return to Athens, Dionysius wrote, hoping that he would not speak ill of him. Plato contemptuously replied, that he had not 'leisure to think of Dionysius.'

Plato's second visit to Syracuse was after the death of Dionysius I., and with the hope of obtaining from Dionysius II. the establish-

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* Some countenance seems given to the ordinary notion of Plato's Lectures by the tradition that even some women attended them. We confess this statement is to us suspicious, especially as it is also said that one woman disguised herself in man's clothes. Disguise, then, was necessary. The fact, however, if correct, would only show the high cultivation of the *hetæræ* (for such the women must have been); and when we think of such women as Aspasia, we see no reason for supposing they could not follow the abstrusest lectures.

† Mr. Thompson says the only authorities for the inscription are Philoponus, in his Commentary on Aristotle, *De Animâ*, and a verse in the *Chiliads* of Tzetzes. See Notes to *Butler's Lectures*, ii. 79.

‡ I have been unable to recover a passage in the *Republic* where Plato expresses himself as in the text, but I found this, which approximates to it, although not the passage I had in my mind. See *Repub.* vi. towards the end, beginning, Μανθάνω, ἔφη, κ.τ.λ. . . . and ending, διάνοιαν δὲ καλεῖν μοι δοκεῖς τὴν τῶν γεωμετρικῶν τε καὶ τὴν τῶν τοιούτων ἕξιν, ἀλλ' οὐ νοῦν, ὡς μεταξύ τι δόξης τε καὶ νοῦ τὴν διάνοιαν οὖσαν.

ment of a colony according to laws framed by himself. The colony was promised; but never granted. Plato incurred the Tyrant's suspicions of having been concerned in Dion's conspiracy; but he was allowed to return home in peace.

He paid a third visit; and this time solely to endeavour to reconcile Dionysius with his uncle Dion. Finding his efforts fruitless, and perhaps dangerous, he returned.

In the calm retirement of the Academy, Plato passed the remainder of his days. Lecturing and writing were his chief occupations. The composition of those dialogues which have been the admiration of posterity, was the cheering solace of his life, especially of his declining years. He died at the advanced age of eighty-three.

Plato was intensely melancholy. That great broad brow, which gave him his surname, was wrinkled and sombre. Those brawny shoulders were bent with thought, as only those of thinkers are bent. A smile was the utmost that ever played over his lips; he never laughed. 'As sad as Plato,' became a phrase with the comic dramatists. He had many admirers; scarcely any friends.

In Plato, the thinker predominated over the man. That great expansive intellect had so fixed itself upon the absorbing questions of philosophy, that it had scarcely any sympathy left for other matters. Hence his constant reprobation of Poets. Many suppose that the banishment of poets from his *Republic* was but an insincere extension of his logical principles, and that he really loved poetry too well to condemn it. Plato's opposition to poets was however both deep and constant. He had a feeling not unallied to contempt for them, because he saw in them some resemblance to the Sophists, in their indifference to truth, and preference for the arts of expression. The only poetry Plato ever praises is *moral* poetry, which is versified philosophy. His soul panted for Truth. Poets, at the best, he held to be inspired madmen, unconscious of what fell from their lips. Let the reader open the *Ion* (it has been translated by Shelley); he will then perceive the cause of poets being banished from the *Republic*. Plato had a repugnance to poetry, partly because it was the dangerous rival of philosophy, partly because he had a contempt for pleasure.* It is true that he frequently quotes Homer, and, towards the close of the *Republic*, some misgivings of having harshly treated the favourite of his youth, escape him; but he

* Comp. *Philebus*, p. 131.

quickly withdraws them, and owns that Truth alone should be man's object.

There is something unpleasant in Plato's character, which finds its echo in his works. He was a great, but not an amiable man; his works are great, but lamentably deficient. His ethics are the ethics of a logician, not of a large-souled man, familiar with and sympathizing with the complexities of life; they are suited only to an impossible state of humanity.

In bringing forward this view of Plato's character, we shall doubtless shock many preconceptions. The Plato we have drawn, if not so romantic as that usually drawn, is the only one which seems to us consonant with what the ancient writers transmit. Let no one object to our assertion of his constant melancholy, on the ground of the comic talent displayed in his *Dialogues*. The comic writers are not the gayest men; even Molière, whose humour is so genial, overflowing, and apparently spontaneous, was one of the austerest. Comedy often springs from the deepest melancholy, as if in sudden rebound. Moreover, in Plato's comedy there is almost always some under-current of bitterness: it is Irony, not Joyousness.

§ II. Plato's Writings: their Character, Object, and Authenticity.

Before attempting an exposition of Plato's doctrines, it may be useful to say something respecting the character and authenticity of his *Dialogues*. Modern criticism, which spares nothing, has not left them untouched. Dialogues, the authenticity of which had never been questioned in antiquity, have been rejected by modern critics upon arbitrary grounds.

We cannot enter here into the details; we have no space; and, had we space, we might be excused from combating the individual positions, when we refuse to accept as valid the fundamental assumptions on which they repose. Internal evidence is generally deceptive; but the sort of internal evidence supposed to be afforded by comparative inferiority in artistic execution, is never free from great suspicion. Some of Plato's dialogues not being found equal to the exalted idea which his great works have led men to entertain, are forthwith declared to be spurious. But what writer is at all times equal to the highest of his own flights? What author has produced nothing but *chefs-d'œuvre?* Are there not times when the most brilliant men are dull, when the richest style is meagre,

when the compactest style is loose? The same subjects will not always call forth the same excellence; how unlikely then that various subjects should be treated with uniform power! The *Theages* could hardly equal the *Theætetus;* the *Euthydemus* must be inferior to the *Gorgias.* No one thinks of disputing Shakspeare's claim to the *Merry Wives of Windsor,* because it is immeasurably inferior to *Twelfth Night,* which, in its turn, is inferior to *Othello.*

Besides the dialogues rejected on account of inferior art, there are others rejected on account of immature or contradictory opinions. But this ground is as untenable as the former. No one has yet been able to settle definitively *what* was Plato's philosophy; yet opinions are said to be unworthy of that unsettled philosophy! A preconceived notion of Plato's having been a pure Socratist, has led to the rejection of whatever seemed contradictory to Socratic views. But there is abundant evidence to show that Plato was not a mere exponent of Socratic opinions. Moreover, in a long life a man's opinions undergo many modifications; and Plato was no exception to the rule. He contradicts himself constantly. He does so in works the authenticity of which no one has questioned; and we are not to be surprised if we find him doing so in others.

It is somewhat amusing to observe the confidence of modern criticism on this point.* An Ast, or a Socher, or a Schleiermacher, rejects, on the most fallacious assumptions, the authenticity of dialogues quoted by Aristotle as the works of his master, Plato. Now really, to suppose that Aristotle could be mistaken on such a matter is a great extension of the conjectural privilege; but to make this supposition on no better ground than that of internal evidence, derived from inferiority of execution, or variation in opinion in the works themselves, seems truly preposterous.

The ancients themselves admitted the *Epinomis,* the *Eryxias,* the *Axiochus,* and the *Second Alcibiades,* to be spurious. The *Epistles* are also now generally regarded as forgeries. With these exceptions, we really see no reason for rejecting any of the dialogues. The *Theages* and the *Hippias Major* are certainly as much in Plato's manner as *Measure for Measure* is in Shakspeare's; indeed, the

* 'According as the deification has directed itself to this or that aspect of his character, the opinions raised as to the genuineness or falsity of his works have fluctuated; so that we might safely say, the more his writings have been examined, the more has the decision of their authenticity become complicated.' —*Ritter.*

Hippias seems to us a remarkably happy specimen of his dramatic talent.

But whether all the Dialogues were the production of Plato or not, they equally serve the purpose of this history, since no one denies them to be *Platonic*. We may therefore leave this question, and proceed to others.

Do the Dialogues contain the real opinions of Plato? This question has three motives. 1st. Plato himself never speaks *in propriâ personâ*, unless indeed the Athenian in the *Laws* be accepted as representing him; a supposition in which we are inclined to concur. 2ndly. From certain passages in the *Phædrus* and the *Epistles*, it would appear that Plato had a contempt for written opinions, as inefficient for instruction. 3rdly. On the testimony of a phrase in Aristotle, it is supposed that Plato, like Pythagoras, had exoteric and esoteric opinions; the former being, of course, those set forth in his Dialogues.

We will endeavour to answer these doubts. The first is of very little importance; the second of greater; the last of very great importance. That Plato adopts the dramatic form, and preserves it, is true; but this form, which quite baffles us with Shakspeare, baffles us with no one else. It is easy to divine the opinions of Aristophanes, Molière, or Schiller. It is still more easy to divine the opinions of Plato, because, unlike the dramatists, he selects his dialogue solely with a view to the illustration of his opinions. Besides, it is reasonable to suppose that 'Socrates,' in the Dialogues, represents Platonic opinions seen through the *manner* of Socrates. And, whatever the variations may be with respect to subordinate points, we find but one Method in all the Dialogues, but one conception of science; in a word, we find an unmistakable *tendency*, which we pronounce to be Platonic.

Respecting his opinion on the insufficiency of books to convey instruction, we may first quote what 'Socrates' says on the subject in the *Phædrus*:—

'Writing is something like painting: the creatures of the latter art *look* very like living beings; but, if you ask them a question, they preserve a solemn silence. Written discourses do the same: you would fancy, by what they say, that they had some sense in them; but, if you wish to learn, and therefore interrogate them, they have only their first answer to return to all questions. And when the discourse is once written, it passes from hand to hand, among all sorts of persons, those who can understand it, and those

who cannot. It is not able to tell its story to those only to whom it is suitable; and, when it is unjustly criticized, it always needs its author to assist it, for it cannot defend itself. There is another sort of discourse, which is far better and more potent than this.—What is it? That which is written scientifically in the learner's mind. This is capable of defending itself, and it can speak itself, or be silent, as it sees fit.—You mean the real and living discourse of the person who understands the subject; of which discourse the written one may be called the picture? Precisely.—Now, think you that a sensible husbandman would take seed which he valued, and wishing to produce a harvest, would seriously, after the summer had begun, scatter it in the gardens of Adonis,* for the pleasure of seeing it spring up and look green in a week? Or do you not rather think that he might indeed do this for sport and amusement; but, when his purpose was serious, would employ the art of agriculture, and, sowing the seed at the proper time, be content to gather in his harvest in the eighth month? The last, undoubtedly.—And do you think that he who possesses the knowledge of what is just, and noble, and good, will deal less prudently with *his* seeds than the husbandman with his? Certainly not.—He will not, then, set about sowing them with a pen and a black liquid; or (to drop the metaphor) scattering these truths by means of discourses, which cannot defend themselves against attack, and which are incapable of adequately expounding the truth. No doubt he will, *for the sake of sport*, occasionally scatter some of the seeds in this manner, and will thus *treasure up memoranda for himself*, in case he should fall into the forgetfulness of old-age, and for all others who follow in the same track; and he will be pleased when he sees the blade growing up green.'†

Now, this remarkable passage is clearly biographical. It is the justification of Socrates's philosophical career. But it must not be too rigorously applied to Plato, whose voluminous writings contradict it; nor must we suppose that those writings were designed only for amusement, or as memoranda for his pupils. The main idea of this passage is one which few persons would feel disposed to question. We are all aware that books labour under very serious deficiencies; they cannot replace oral instruction. The frequent misapprehensions of an author's meaning would in a great measure be obviated

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* 'The gardens of Adonis,' a periphrasis for mignonette-boxes.

† *Phædrus*, p. 98.

if we had him by our side to interrogate him. And oral instruction has the further advantage of not allowing the reader's mind to be so *passive* as it is with a book: the teacher by his questions excites the activity of the pupil. All this may reasonably be conceded as Plato's opinion, without at all affecting the serious purpose of his writings. Plato thought that conversation was more instructive than reading; but he knew that reading was also instructive, and he wrote: to obviate as much as possible the necessary inconveniences of written discourse, he threw all his works into the form of dialogue. Hence the endless repetitions, divisions, and illustrations of positions almost self-evident. The reader is fatigued by them; but, like Addison's tediousness, they have 'a design' in them: that design is, by imitating conversation, to leave no position unexplained. As a book cannot be interrogated, Plato makes the book anticipate interrogations. The very pains he takes to be tedious, the very minuteness of his details, is sufficient to rescue his works from the imputation of being mere amusements. He was too great an artist to have sacrificed his art to anything but his convictions. That he did sacrifice the general effect to his scrupulous dialectics, no one can doubt; and we believe that he did so for the sake of deeply impressing on the reader's mind the real force of his Method. Had the critics recognized Plato's real drift, we believe they would have spared much of their censure, and hesitated before pronouncing against the genuineness of certain dialogues.

Connected with Plato's expressions respecting the imperfection of written works, there is the passage in Aristotle, referring to the *ἄγραφα δόγματα*, or 'unwritten opinions,' which is supposed to indicate an esoteric doctrine. If Aristotle's words do bear that meaning, then is the opinion consistent and valid, which regards the exoteric works—the Dialogues—as mere divertissements. Let us examine it.

Aristotle says that Plato, in the *Timæus*, maintained space and matter to be the same, but that, in what are called the unwritten opinions (*ἐν τοῖς λεγομένοις ἀγράφοις δόγμασι*), he considered space and place (*τὸν τόπον καὶ τὴν χώραν*) to be the same.* From such a

* *Phys.* iv. c. 2, p. 53. Ritter, who refers to but does not cite the passage, gives us to understand that, in these unwritten opinions, 'much was explained differently, or, at least, more definitely than in the Dialogues.' But no such conclusion can be drawn from Aristotle. There is no greater difference alluded to in the passage than may frequently be found between one dialogue and another. If the written (published) opinions differ, surely those unwritten

passage it is surely somewhat gratuitous to conclude that Plato had an esoteric doctrine. The *ἄγραφα δόγματα* probably meant his lectures, or as Ritter suggests, notes taken from the lectures by his scholars. At any rate there is no ground for supposing them to have been esoterical opinions; the more so as Aristotle, his most illustrious pupil, never speaks of any such distinct doctrine, but draws his statements of Plato's views from published works.

We are convinced that the Dialogues contain the real opinions of Plato, in as far as Plato ventured to express them. We make this reservation because it is pretty generally known that in the Socratic philosophy individual opinions were not of so much importance as Method. It would perhaps be better to say, therefore, that the Dialogues exhibit Plato's real Method and tendencies. Certain it is that the Method and tendencies can only rightly be appreciated after a survey of all the Dialogues. The ancients, we are told by Sextus Empiricus,* were divided amongst themselves as to whether Plato was a sceptic or a dogmatist. Nor was the dispute irrational; for, as some of the Dialogues are expository and dogmatical, and others are mere exercises of the dialectical method—mere contests in which nothing is definitively settled—any one having studied only one class of these Dialogues would think Plato either a sceptic or a dogmatist, according to the nature of those which he had read. Thus Cicero, an ardent admirer, says, 'Plato affirms nothing; but, after producing many arguments, and examining a question on every side, leaves it undetermined.' This is true of such dialogues as the *Theætetus*, or the *Hippias Major*; but untrue of the *Phædo*, *Timæus*, *Laws*, etc.

This leads us to a consideration of the various attempts at classifying the Dialogues. That some sort of classification should be adopted is admitted by all; but no two persons seem to agree as to the precise arrangement. Any attempt at chronological arrangement must inevitably fail. Certain dialogues can be satisfactorily shown to have been written subsequently to some others; but any regular succession is beyond our ingenuity. We may be pretty sure that the *Phædrus* was the earliest,† or one of the earliest, and

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may be allowed also to differ from the written? If the *Republic* differs from the *Timæus*, surely the 'unwritten opinion' may differ from the *Timæus*.

* *Pyrrhon. Hypot.* i. p. 44.

† See on this point Mr. Thompson's note to *Butler's Lectures on Hist. of Ancient Phil.* ii. p. 44.

the *Laws* the latest. We may be sure that the *Republic* was earlier than the *Laws*, because the latter is a maturer view of politics. But *when* the *Republic* was written, baffles conjecture. It is usually placed with the *Timæus* and the *Laws*; that is to say, with the last products of its author. But we demur to this on several accounts. The differences of style and of ideas observable in the *Republic* and the *Laws*, imply considerable distance between the periods of composition. Besides, a man not writing for his bread does not so soon resume a subject which he has already treated with great fulness. Plato had uttered his opinions in the *Republic*. He must have waited till new ideas were developed, before he could be tempted again to write; for observe, both these dialogues are expository and dogmatical: they express Plato's opinions; they are not merely dialectical exercises.

It strikes us also that there is but one safe principle to be applied to the testing of such points. Whenever two works exhibit variations of opinion, we should examine the nature of the variations and ask, which of the two opinions is the later in development—which must have been the earlier?

Let us take an example. In the *Republic* (iii. p. 123) he attempts to prove that no one can excel in two arts; that the comic poet cannot be the same as the tragic, the same actor cannot act in tragedy and comedy with success. In the *Amatores* (p. 289) he has the same idea, though there only mentioned briefly.* In the *Symposium*, however, Plato's opinion is directly the reverse; for, in a celebrated passage, he makes Socrates convince Agathon that the tragic and comic poet are the same person. Now, it is not difficult to decide which is the earlier opinion: in the *Republic* it is the logical consequence of his premisses; but in the *Symposium* that opinion is corrected by experience, for in the poets of his own day Plato found both tragedy and comedy united; and as Socrates is made to convince Agathon, we may conclude that the former opinion was not uncommon, and that Plato here makes a retractation. No one will deny that the former opinion is superficial. The distinction between tragedy and comedy is such that it *seems* to imply a distinct nature

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* According to Ritter's principle, this would prove the *Republic* to be later than the *Amatores*. He maintains, and with plausibility, that, when a subject which has been developed in one dialogue is briefly assumed in another, the latter is subsequent in composition. (Ritter, vol. ii. p. 183.) Yet, on this principle the *Phædo* is earlier than the *Phædrus*, inasmuch as the doctrine of reminiscence is developed in the former and alluded to in the latter.

to attain excellence in each. But Euripides, Shakspeare, Racine, Cervantes, Calderon, and many others, confute this seeming by their dramas.

Perhaps a still more conclusive example is that of the 'creation of Ideas,' so expressly stated in the *Republic*, and the 'eternity and uncreated nature of Ideas,' as expressly stated in the *Timæus*. So radical a difference in the most important position of his philosophy, would at once separate the epochs at which the two dialogues were composed. And to this may be added the difference in artistic treatment between the *Republic* and the *Timæus*. The former, although expository, has much of the vivacity and dramatic vigour of the early dialogues. The *Timæus* and the *Laws* have scarcely a trace of art.

Ritter has well observed that 'the excellence of the Platonic dialogues, as pieces of art, is twofold:—the rare imitative powers exhibited in the dialogue, and the acuteness with which philosophical matters are dialectically treated. No one will deny that these two qualities have only an outward connection, and consequently that they cannot advance equally. With the philosopher the latter is manifestly the more important, whereas the former is of secondary importance. The degree of perfection therefore in any dialogue, as such, affords at most a very uncertain means for the determination of its date; whereas the greatest weight ought to be laid on the dialectical skill.' In proportion as the dialectical skill became mature, it is natural to suppose that the dramatic imitation was less cared for. In proportion as Plato became settled in his convictions he became anxious solely for their clear exposition. He began life with a love of poetry; but this he soon abandoned for philosophy.

The whole inquiry may seem idle; but until something like a positive arrangement of his works can be made, there will be no end to the misconceptions of his opinions; for it is preposterous to cite passages in support of a doctrine, before having ascertained the date of the work whence the passages are drawn. Yet this is the way critics and historians draw up an imaginary outline of Plato's philosophy, and squabble amongst each other as to who is right. When it is said that Plato held such or such an opinion, it should be distinctly understood at what period of his career he held it; because, in so long a career, and with so many changes of opinion, it is necessary to be precise. For our own part we can scarcely name a single opinion held by him *throughout* his works. Even the Socratic idea

of Virtue being identical with Knowledge, consequently of Vice being Ignorance, and therefore involuntary—even this idea he learned in his old-age to repudiate, as we see in the *Laws* (book v. p. 385), where he calls *incontinence*, no less than ignorance (*ἢ δι' ἀμαθίαν ἢ δι' ἀκράτειαν*), the causes of vice. In the same sense (book iv. p. 138), after speaking of anger and pleasure as causes of error, he says, 'There is a third cause of our faults, and that is ignorance' (*τρίτον ἄγνοιαν τῶν ἁμαρτημάτων αἰτίαν*). So that here he places ignorance only as a third cause; and by so doing destroys the whole Socratic argument respecting the identity of Virtue and knowledge.*

This being the case, it will readily be acknowledged, that to make up a doctrine from passages culled here and there, must inevitably lead into error. A *consistent doctrine* cannot be made out. Indeed it is questionable whether Plato ever elaborated one. Like Socrates, he occupied himself with Method rather than with results; like Socrates, he had doubts respecting the certainty of knowledge on the higher subjects of thought; like Socrates, he sought Truth, without professing to have found her.

As a chronological arrangement has been impossible, a philosophical arrangement has frequently been attempted. The most celebrated is that of Schleiermacher, who divides the Dialogues into three classes:—'1st. *Elementary dialogues*, or those which contain the germs of all that follows,—of logic as the instrument of philosophy, and of ideas as its proper object; consequently, of the possibility of the conditions of knowledge: these are the *Phædrus, Lysis, Protagoras, Laches, Charmides, Euthyphro,* and *Parmenides;* to which he subjoins, as an appendix, the *Apologia, Crito, Ion, Hippias Minor, Hipparchus, Minos,* and *Alcibiades II.* 2nd. *Progressive dialogues,* which treat of the distinction between philosophical and common knowledge in their united application to the two proposed and real sciences, Ethics and Physics: these are the *Gorgias, Theætetus, Meno, Euthydemus, Cratylus, Sophistes, Politicus, Symposium, Phædo,* and *Philebus;* with an appendix containing the *Theages, Amatores, Alcibiades I., Menexemus, Hippias Major,* and *Clitophon.*

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* The *Meno* is a further confirmation. In it virtue is shown to be unsusceptible of being taught; *ergo,* it is not Knowledge. This would make the *Meno* one of the latest works. Neither of these contradictions has, to our knowledge, been noticed before. It was our intention to insert a Chapter on the self-contradictions of Plato, but the space such a Chapter must have occupied, would have been utterly beyond our limits.

3rd. *Constructive dialogues,* in which the practical is completely united with the speculative; these are the *Republic, Timæus, Critias* with an appendix containing the *Laws* and the *Epistles.*'* There is considerable ingenuity in this; and it has been adopted by Bekker in his edition. It has however been much criticized, as every such attempt must necessarily be. Van Heusde, in his charming work,† has suggested another. He proposes three classes: 1, those wherein the subject-matter relates to the Beautiful; 2, those wherein it relates to the True; 3, those wherein it relates to the Practical. Of the first are those concerning Love, Beauty, and the Soul. Of the second, those concerning Dialectics, Ideas, Method; in which Truth and the means of attaining it are sought. Of the third, those concerning justice; *i. e.* morals and politics. These three classes represent the three phases of the philosophical mind: the desire for Truth, the appreciation of Truth, and the realization of it, in an application to human life.

There is one great objection to this classification, namely, the impossibility of properly arranging the Dialogues under the separate heads. The *Phædrus,* which Van Heusde believes devoted to Love and Beauty, Schleiermacher has clearly shown to be devoted to Dialectics. So of the rest: Plato mixes up in one dialogue very opposite subjects. Van Heusde is also under the erroneous conviction of Plato's having been only a Socratist till he went to Megara, where he became imbued with the Eleatic doctrines; and that it was in his maturer age that he became acquainted with the Pythagorean philosophy.

It may be presumptuous to suggest a new classification, yet it is difficult to resist the temptation. It seems to us that the Dialogues may reasonably be divided into the two classes named by Sextus Empiricus:—Dogmatic and Agonistic, or Expository and Polemical. The advantage of this division is its clearness and practicability. There will always be something arbitrary in the endeavour to classify the dialogues according to their subject-matter, because they are almost all occupied with more than one subject. Thus the *Republic* would certainly be classed under the head of Ethics; yet it contains very important discussions on the nature of human knowledge, and on the theory of Ideas; and these discussions ought properly to be classed under the head of Metaphysics. Again, the

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* *Penny Cyclopædia,* Art. *Plato,* p. 236.

† *Initia Philosophiæ Platonicæ,* i. p. 72.

Phædrus is more than half occupied with discourses about Love; but the real subject of the work is Dialectics.

In the division we propose, such inconveniences are avoided. It is easy to see which dialogues are polemical and which are expository. The *Hippias Major* and the *Timæus* may stand as representatives of each class. In the former no attempt is made to settle the question raised. Socrates contents himself with refuting every position of his antagonist. In the *Timæus* there is no polemic of any sort: all is calmly expository.

A further subdivision might also be made of the agonistic dialogues, into such as are purely polemical and such as by means of polemics enforce ideas. Sometimes Plato only destroys; at other times the destruction is a clearance of the ground, which opens to us a vista of the truth: of this kind is the *Theætetus*.

We are however firmly persuaded that one distinct purpose runs through all the Dialogues, whatever may be their varieties of form or of opinion; one great and fruitful purpose, which may rightly be called the philosophy of Plato, and which we will now attempt to exhibit.

§ III. Plato's Method.

By some, Plato is regarded as the mere literary exponent of the Socratic doctrines; by others, as the real founder of a new epoch and of a new philosophy. Both of these views appear to us questionable; but on the subject of Plato, errors are so numerous, and we had almost said so inevitable, that no one who rightly appreciates the difficulty of ascertaining the truth, will be disposed to dogmatize. Although we claim the right of enforcing our opinions—a right purchased with no contemptible amount of labour in the inquiry—we would be distinctly understood to place no very great confidence in their validity. After this preface, we trust, we may speak openly without incurring the charge of dogmatism, when simply recording the results of study.*

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* It has been a principle with us throughout, to abstain from all unnecessary references. The absence of such references renders it the more needful for us to state that, previous to writing this Section, we renewed our acquaintance with Plato by carefully reading *all his works*, with the exception of two of the minor ones. (Since the first edition of this work a complete translation of Plato has appeared, so that the English reader has now the means of testing the validity of our conclusions.)

Plato we hold to be neither a simple Socratist, nor the creator of a new philosophy. He was the inheritor of all the wisdom of his age. He fully seized the importance of the Socratic Method; he adopted it, enlarged it. But he also saw the importance of those ideas which his predecessors had so laboriously excogitated; he adopted and enlarged the leading features of the Pythagoreans and the Eleatics, of Anaxagoras and Heraclitus. With vast learning and a puissant Method, he created an influence which is not yet totally extinct. But his philosophy was critical, not dogmatical. He enlarged, ameliorated the views of others, introducing little that was new into the philosophy of his age. He was the culminating point of Greek philosophy. In his works all the various and conflicting tendencies of preceding eras were collected under one Method.

That Method was doubtless the Method of Socrates, with some modifications, or rather with some enlargement. Schleiermacher, in a profound and luminous essay on the *Worth of Socrates as a Philosopher,** looks upon the service rendered to Philosophy by Socrates as consisting less in the truths *arrived at*, than in the mode in which truth should be *sought*. Alluding to this view, John Mill has said, 'This appears to us to be, with some modifications, applicable likewise to Plato. No doubt the disciple pushed his mere *inquiries* and *speculations* over a more extended surface, and to a much greater depth below the surface, than there is any reason to believe the master did. But, though he continually starts most original and valuable ideas, it is seldom that these, when they relate to the *results* of inquiry, are stated with an air of conviction, as if they amounted to fixed opinions. But, when the topic under consideration is the proper *mode* of philosophizing—either the moral spirit in which truth should be sought, or the intellectual processes and methods by which it is to be attained; or when the subject-matter is not any particular scientific principle, but knowledge in the abstract, the differences between knowledge and ignorance, and between knowledge and mere opinion—*then* the views inculcated are definite and consistent, are always the same, and are put forth with the appearance of earnest and matured belief. Even in treating of other subjects, and even when the opinions advanced have the least semblance of being seriously entertained, the discourse itself has

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* Translated by Bishop Thirlwall, in the *Philological Museum*, and reprinted in the English version of Dr. Wiggers's *Life of Socrates*.

generally a very strong tendency to illustrate the conception, which *does* seem to be really entertained, of the nature of some part or other of the process of philosophizing. The inference we would draw is, that on the science of the Investigation of Science, the theory of the pursuit of truth, Plato had not only satisfied himself that his predecessors were in error, and *how*, but had also adopted definite views of his own; while on all or most other subjects he contented himself with confuting the absurdities of others, pointing out the proper course for inquiry, and the spirit in which it should be conducted, and throwing out a variety of ideas of his own, of the value of which he was not quite certain, and which he left to the appreciation of any subsequent inquirer competent to sit in judgment upon them.'

We have here to examine what that Method was which Plato constantly pursued. Socrates, as we have shown, relied upon the Inductive or Analogical Reasoning, and on Definitions, as the two principles of investigation. The incompleteness of these principles we have already pointed out; and Plato himself found it necessary to enlarge them.

Definitions form the basis of all Philosophy. To know a thing you must also know what it is *not*. In ascertaining the real Definition, Socrates employed his *accoucheur's* art (τέχνη μαιευτική), and proceeded inductively. Plato also used these arts; but he added to them the more efficient processes of Analysis and Synthesis, of generalization and classification.*

Analysis, which was first insisted on by Plato as a philosophic process, is the decomposition of the whole into its separate parts; whereby, after examining those parts attentively, the idea of the whole is correctly ascertained. To use Platonic language, Analysis is seeing the One in the Many. Thus, if the subject be Virtue, the general term Virtue must first be decomposed into all its parts, *i. e.* into all the Virtues; and from a thorough examination of the Virtues a clear idea of Virtue may be attained.†

Definitions were to Plato what general or abstract ideas were to later metaphysicians. The individual thing was held to be transitory and phenomenal, the abstract idea was eternal. Only concerning the latter could philosophy occupy itself. But Socrates, although insisting on proper Definitions, had no conception of the classifica-

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* Consult Van Heusde, *Initia Philosoph. Platonicæ*, ii. pars ii. 97, 98.

† A good example of his mode of conducting an inquiry may be seen in the *Gorgias*.

tion of those Definitions which must constitute philosophy. Plato, therefore, by the introduction of this process, shifted philosophy from the ground of inquiries into man and society to that of Dialectics. What was Dialectics? It was the art of *discoursing, i. e.* the art of thinking, *i. e.* logic. Plato uses the word Dialectics, because with him Thinking was a silent discourse of the soul, and differed from speech only in being silent. In this conception of Philosophy as Dialectics, Plato absorbed the conversational method of Socrates, but gave it a new direction.

How erroneous the notion is which supposes that Plato's merit was exclusively literary, may be gathered from the above brief outline of his Method. He was pre-eminently a severe Dialectician. This is his leading peculiarity; but he has clothed his method in such attractive forms that the means have been mistaken for the end. His great dogma, like that of his master, Socrates, was the necessity of an untiring investigation into general terms (or abstract ideas). He did not look on life with the temporary interest of a passing inhabitant of the world. He looked on it as an immortal soul longing to be released from its earthly prison, and striving to catch by anticipation some faint glimpses of that region of eternal Truth where it would some day rest. The fleeting phenomena of this world he knew were nothing more; but he was too wise to overlook them. Fleeting and imperfect as they were, they were the indications of that eternal Truth for which he longed, footmarks on the perilous journey, and guides unto the wished-for goal. Long before him wise and meditative men perceived that sense-knowledge would only be knowledge of phenomena; that everything men call Existence was but a perpetual flux—a something which, always *becoming*, never *was*; that the reports which our senses made of these things partook of the same fleeting and uncertain character. He could not, therefore, put his trust in them; he could not believe that Time was anything more than the wavering image of Eternity.

But he was not a Sceptic. These transitory phenomena were not true existences; but they were *images* of true existences. Interrogate them; classify them; discover what qualities they have in common; discover that which is invariable, necessary, amidst all that is variable, contingent; discover The One in The Many, and you have penetrated the secret of Existence.*

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* To refer the reader to particular passages wherein this doctrine is ex-

Now, in reducing this Platonic language to a modern formula, what is the thought? The thought is simply this: Things exist as classes and as individuals. These classes are but species of higher classes; *e. g.* men are individuals of the class Man, and Man is a species of the class Animal. But Philosophy, which is deductive, has nothing to do with individuals; it is occupied solely with classes. General Terms, or abstract ideas, are therefore the materials with which Philosophy works.

These General Terms, Plato said, stood for the only real Existences, the only objects of Philosophy. And as far as expression is concerned, he would seem to be in perfect accordance with modern thinkers. But we must be cautious how we mistake these coincidences of expression for coincidences of doctrine. Plato's philosophy was an inarticulate utterance, curious to the historian, but valueless as a solution of the problem.

We are here led to the origin of the world-famous dispute of Realism and Nominalism, which may be summed up in a sentence. The Realists maintain, that every General Term (or Abstract idea), such as Man, Virtue, etc., has a real and independent existence, quite irrespective of any concrete individual determination, such as Smith, Benevolence, etc. The Nominalists, on the contrary, maintain, that all General Terms are but the creations of the mind, designating no distinct entities, being merely used as *marks* of aggregate conceptions.

In Realism, Plato separated himself from his master Socrates. On this point we have the indubitable, but hitherto little noticed, testimony of Aristotle, who, after speaking of the Socratic Method of Induction and Definition, says:—'But Socrates gave neither to General Terms nor to Definitions a distinct existence.'* This is plain enough. Aristotle, in continuation, obviously speaks of Plato:—'Those who succeeded him gave to these General Terms a separate existence, and called them *Ideas*.'

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pressed, or implied, would be endless: it runs through all his works, and is the only constant doctrine to be found there. Perhaps the easiest passage where it may be read is *Philebus*, pp. 233–6.

* *Met.* xiii. 4, Ἀλλ' ὁ μὲν Σωκράτης τὰ καθόλου οὐ χωριστὰ ἐποίει, οὐδὲ τοὺς ὁρισμούς.—The wording of this may appear strange. Many have supposed universals to exist separately; but how a separate existence could be given to Definitions may puzzle the stoutest Realist. We believe the difficulty vanishes, if we remember that the Platonic Definitions and Universals were the same things; Aristotle's phrase is, however, ambiguous.

Thus are we introduced to Plato's famous Ideal theory; which, although confused and contradictory enough in detail, as is the case with all his special opinions, is clear enough in its general tendency.

§ IV. Plato's Ideal Theory.

The word Idea has undergone more changes than almost any word in philosophy; and nothing can well be more opposed to the modern sense of the word than the sense affixed to it by Plato. If we were to say, that *Ideas* were tantamount to the *Substantial Forms* of the schoolmen, we should run the risk of endeavouring to enlighten an obscurity by an obscurity no less opaque. If we were to say, that the Ideas were tantamount to *Universals*, the same objection might be raised. If we were to say, that the Ideas were *General Terms* or *Abstract Ideas*, we should mislead every Nominalist into the belief that Plato was an 'Idealist;' otherwise the last explanation would be pertinent.

It will be better, however, to describe first, and to define afterwards. Plato, according to Aristotle, gave to General Terms a distinct existence, and called them Ideas. He became a Realist; and asserted, that there was the *Abstract Man* no less than the *Concrete Men*. the latter were Men only in as far as they participated in the Ideal Man. No one will dispute that we have a conception of a genus—that we do conceive and reason about Man quite independently of Smith or Brown, Peter or Paul. If we have such a conception, whence did we derive it? Our experience has only been of the Smiths and Browns, the Peters and Pauls; we have only known *men*. Our senses tell us nothing of Man. Individual objects only give individual knowledge. A number of stones placed before us will afford us no knowledge, will not enable us to say, These are stones; unless we have previously learned what is the nature of Stone. So, also, we must know the nature of Man, before we can know that Jones and Brown are Men. We do know Man, and we know Men; but our knowledge of the former is distinct from that of the latter, and must have a distinct source; so, at least, thought the Realists. What is that source? Reflection, not sense.

The Realists finding The One in The Many,—in other words, finding certain characteristics common to all Men, and not only common to them but necessary to their being Men,—abstracted these *general* characteristics from the *particular* accidents of indi-

vidual men, and out of these characteristics made what they called *Universals* (what we call *genera*). These Universals existed *per se*. They are not only conceptions of the mind; they are entities; and our perceptions of them are formed in the same manner as our perceptions of other things.

Greek Philosophy, no less than Greek Art, was eminently Objective. Now what is the objective tendency, but the tendency to transform our *conceptions* into *perceptions*—to project our ideas out of us, and then to look at them as images, or as entities? Let then the conception of genera be rendered objective, and the Realist doctrine is explained. Our *conceptions* were held by Realism to be *perceptions* of existing Things; these Plato called *Ideas*, which he maintained to be the only real existences: they were the *noumena* of which all individual things were the *phenomena*. If then we define the Platonic 'Idea' to be a 'Noumenon,' or 'Substantial Form,' we shall not be far wrong: and most of the disputes respecting the real meaning of the term will be set aside; for example, Ritter's wavering account of the word—in which he is at a loss to say whether *Idea* means the *universal*, or whether it does not also mean the *individual*. That Plato usually designates a General Term by the word Idea, there can be no doubt; there can be no doubt also that he sometimes designates the essence of some individual thing an Idea, as in the *Republic*, where he speaks of the Idea of a Table from which all other Tables were formed. There is no contradiction in this:—a general form is as necessary for Tables as for Men: this Idea, therefore, equally partakes of generality, even where exemplified by particular things.

We must now endeavour to indicate the position occupied by Ideas in the Platonic cosmology. To Socrates Plato was indebted for his Method; yet not wholly indebted, seeing that he enlarged the conception transmitted to him. To Pythagoras he was indebted for his theory of Ideas; yet not wholly indebted, seeing that he modified it and rendered it more plausible. What he did for Method we have seen: let us now see how he transformed the Pythagorean doctrine.

Aristotle, in a memorable passage, says:—'Plato followed Socrates respecting definitions, but, accustomed as he was to inquiries into universals (διὰ τὸ ζητῆσαι περὶ τῶν καθόλου), he supposed that definitions should be those of *intelligibles* (*i.e.* noumena), rather than of *sensibles* (*i.e.* phenomena): for it is impossible to give a general definition to *sensible objects*, which are always changing. Those

Intelligible Essences he called *Ideas;* adding that *sensible objects* were different from Ideas, and received from them their names; for it is in consequence of their *participation* (*κατὰ μέθεξιν*) in Ideas, that all objects of the same genus receive the same name as the Ideas. He introduced the word *participation.* The Pythagoreans say, that "Things are the *copies* of Numbers." Plato says, "the *participation;*" he only changes the name.'*

With due submission we venture to question the assertion of Aristotle in the last sentence. Plato did more than change a name. The conception alone of Ideas, as generical types, is a great advance on the conception of Numbers. But Plato did not stop here. He ventured on an explanation of the nature and the degree of that participation of sensible objects in Ideas. And Aristotle himself, in another place, points out a fundamental distinction. 'Plato thought that sensible Things no less than their causes were Numbers; *but the causes are Intelligibles* (*i.e.* Ideas), *and other things Sensibles.*'† Surely, this is something more than the invention of a name! It gives a new character to the theory; it renders it at once more clear, and more applicable.

The greatest difficulty felt in the Ideal theory is that of *participation.* How, and in how far, does this participation take place? A question which Plato did not, and could not, solve. All that he could answer was, that human knowledge is necessarily imperfect, that sensation troubles the intellectual eye, and only when the soul is free from the hindrances of the body shall we be able to discern things in all the ineffable splendour of truth. But, although our knowledge is imperfect, it is not false. Reason enables us to catch some glimpses of the truth, and we must endeavour to gain more. Whatever is the object of the soul's thought, purely as such, is real and true. The problem is to separate these glimpses of the truth from the prejudices and errors of mere opinion.

In this doctrine, opinion is concerned only with Appearances (phenomena): philosophy, with Existence. Our sensation, judgments, opinions, have only reference to *τὰ γιγνόμενα;* our philosophic conceptions have reference to *τὰ ὄντα.* The whole matter is comprised in Plato's answer to Diogenes, who thought he demolished the theory of Ideas by exclaiming, 'I see indeed a table; but I see no Idea of a table.' Plato replied, 'Because you see with

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* *Metaph.* i. 6.

† *Metaph.* i. 7, Ἀλλὰ τοὺς μὲν νοητοὺς αἰτίους, τούτους δὲ αἰσθητούς.

your eyes, and not with your reason.' Hence, at the close of the 5th Book of his *Republic*, he says that those only are to be called Philosophers who devote themselves to the contemplation of τὸ ὄν, *i. e.* Existence.

The phenomena which constitute what we perceive of the world (*i. e.* the world of sense) are but the resemblances of matter to Ideas. In other words, Ideas are the Forms of which material Things are copies; the *noumena*, of which all that we perceive are the Appearances (phenomena). But we must not suppose these copies to be exact; they do not at all participate in the nature of their models; they do not even represent them, otherwise than in a superficial manner. Or perhaps it would be more correct to say, that Ideas do not resemble Things; the man does not resemble his portrait, although the portrait may be a tolerable resemblance of him; a resemblance of his aspect, not of his nature. If, then, the Ideas as they exist realized in Nature do not accurately resemble the Ideas as they exist *per se*—*i. e.* if the phenomena are not exact copies of the noumena—how are we ever to attain a knowledge of Ideas and of Truth? This question plunges us into the midst of his psychology, which we must first explain before the whole conception of the Ideal theory can be made consistent.

§ V. Plato's Psychology.

After the dreary dialectics of the two preceding Sections, it is some refreshment to be able to open this Section with a myth, and that perhaps the most fascinating of all Plato's myths.

In the *Phædrus* Socrates very justly declares his inability to explain the real nature of the soul. But, though he cannot exhibit it, he can show what it resembles. Unable to give a demonstration, he can paint a picture; and that picture he paints as follows:—

'We may compare it to a chariot, with a pair of winged horses and a driver. In the souls of the Gods, the horses and the drivers are entirely good: in other souls only partially so, one of the horses excellent, the other vicious. The business, therefore, of the driver is extremely difficult and troublesome.

'Let us now attempt to show how some living beings came to be spoken of as mortal, and others as immortal. All souls are employed in taking care of the things which are inanimate; and travel about the whole of heaven in various forms. Now, when the soul is perfect, and has wings, it is carried aloft, and helps to administer

the entire universe; but the soul which loses its wings, drops down until it catches hold of something solid, in which it takes up its residence; and, having a dwelling of clay, which seems to be self-moving on account of the soul which is in it, the two together are called an animal, and mortal. The phrase "immortal animal" arises not from any correct understanding, but from a fiction: never having seen, nor being able to comprehend, a deity, men conceived an immortal being, having a body as well as a soul, united together for all eternity. Let these things, then, be as it pleases God; but let us next state from what cause a soul becomes unfledged.

'It is the nature of wings to lift up heavy bodies towards the habitation of the Gods; and, of all things which belong to the body, wings are that which most partakes of the divine. The divine includes the beautiful, the wise, the good, and everything of that nature. By these the wings of the soul are nourished and increased; by the contraries of these, they are destroyed.

'Jupiter, and the other Gods, divided into certain bands, travel about in their winged chariots, ordering and attending to all things, each according to his appointed function; and all who will, and who can, follow them. When they go to take their repasts, they journey towards the summit of the vault of heaven. The chariots of the Gods, being in exact equilibrium, and therefore easily guided, perform this journey easily, but all others with difficulty; for one of the two horses, being of inferior nature, when he has not been exceedingly well trained by the driver, weighs down the vehicle, and impels it towards the earth.

'The souls which are *called* immortal (viz. the Gods), when they reach the summit, go through, and, standing upon the convex outside of heaven, are carried round and round by its revolution, and see the things which lie beyond the heavens. No poet has ever celebrated these supercelestial things, nor ever will celebrate them, as they deserve. This region is the seat of *Existence* itself: Real Existence, colourless, figureless, and intangible Existence, which is visible only to Mind, the charioteer of the soul, and which forms the subject of Real Knowledge. The minds of the Gods, which are fed by pure knowledge, and all other thoroughly well-ordered minds, contemplate for a time this universe of 'Being' *per se*, and are delighted and nourished by the contemplation, until the revolution of the heavens brings them back again to the same point. In this circumvolution, they contemplate Justice itself, Temperance itself, and Knowledge; not that knowledge which has a generation

or a beginning, not that which exists in a subject which is any of what we term beings, but that Knowledge which exists in Being in general; in that which really Is. After thus contemplating all real existences, and being nourished thereby, these souls again sink into the interior of the heavens, and repose.

'Such is the life of the Gods. Of other souls, those which best follow the Gods, and most resemble them, barely succeed in lifting the head of the charioteer into the parts beyond the heavens, and, being carried round by the circumvolution, are enabled with difficulty to contemplate this universe of Self-Existence. Others, being encumbered by the horses, sometimes rising and sometimes sinking, are enabled to see some Existences only. The remainder only struggle to elevate themselves, and, by the unskilfulness of their drivers, coming continually into collision, are lamed, or break their wings, and, after much labour, go away without accomplishing their purpose, and return to feed upon mere opinion.

'The motive of this great anxiety to view the supercelestial plain of Truth is that the proper food of the soul is derived from thence, and, in particular, the wings, by which the soul is made light and carried aloft, are nourished upon it. Now it is an inviolable law that any soul which, placing itself in the train of the Gods, and journeying along with them, obtains a sight of any of these self-existent Realities, remains exempt from all harm until the next circumvolution, and, if it can contrive to effect this every time, it is for ever safe and uninjured. But if, being unable to elevate itself to the necessary height, it altogether fails of seeing these realities, and, being weighed down by vice and oblivion, loses its wings and falls to the earth, it enters into and animates some Body. It never enters, at the first generation, into the body of a brute animal; but that which has seen most enters into the body of a person who will become a lover of wisdom, or a lover of beauty, or a person addicted to music, or to love; the next in rank, into that of a monarch who reigns according to law, or a warrior, or a man of talents for command; the third, into a person qualified to administer the State, and manage his family affairs, or carry on a gainful occupation; the fourth, into a person fond of hard labour and bodily exercises, or skilled in the prevention and curing of bodily diseases; the fifth, into a prophet, or a teacher of religious ceremonies; the sixth, into a poet, or a person addicted to any other of the imitative arts; the seventh, into a husbandman or an artificer; the eighth, into a sophist, or a courtier of the people; the ninth, into a despot and

usurper. And, in all these different fortunes, they who conduct themselves justly will obtain next time a more eligible lot; they who conduct themselves unjustly, a worse. The soul never returns to its pristine state in less than ten thousand years, for its wings do not grow in a shorter time; except only the soul of one who philosophizes with sincerity, or who loves with philosophy. Such souls, after three periods of one thousand years, if they choose thrice in succession this kind of life, recover their wings in the three thousandth year, and depart. The other souls, at the termination of their first life, are judged, and, having received their sentence, are either sent for punishment into the places of execution under the earth, or are elevated to a place in heaven, in which they are rewarded according to the life which they led while here. In either case they are called back on the thousandth year, to choose or draw lots for a new life. Then a human soul often passes into the body of a beast, and that of a beast, if it has ever been human, passes again into the body of a man; for a soul which has never seen the Truth at all cannot enter into the human form, it being necessary that man should be able to apprehend many things according to *kinds,* which kinds are composed of many perceptions combined by reason into *one.* Now, this mode of apprehending is neither more nor less than the *recollecting* of those things which the soul formerly saw when it journeyed along with the Gods, and, disregarding what we now call beings, applied itself to the apprehension of Real Being. It is for this reason that the soul of the philosopher is refledged in a shorter period than others; for, it constantly, to the best of its power, occupies itself in trying to recollect those things which the Gods contemplated, and by the contemplation of which they are Gods; by which means being lifted out of, and above, human cares and interests, he is, by the vulgar, considered as mad, while in reality he is inspired.'

This is unquestionably the poetry of philosophy, and it is from such passages that the popular opinion respecting Plato has been formed; but they represent only a small portion of the real thinker. Towards the close the reader will have remarked that the famous doctrine of *reminiscence* is implied. This doctrine may be seen fully developed in the *Phædo;* it seems to have been a fundamental one. The difficulties of conceiving the possibility of any knowledge other than the sense-knowledge, which the Sophists had successfully proved to lead to scepticism, must early have troubled Plato's mind. If we know nothing but what our senses teach us, then is

all knowledge trivial. Those who admit the imperfection of the senses and fall back upon Reason, beg the question. How do we know that Reason is correct? How can we be assured that Reason is not subject to some such inevitable imperfection as that to which sense is subject?

Here the ever-recurring problem of human knowledge presents itself. Plato was taught by Socrates that beyond the world of Sense, there was the world of eternal Truth; that men who differed greatly respecting individual things did not differ respecting universals; that there was a common fund of Truth, from which all human souls drew their share. Agreeing with his master that there were certain principles about which there could be no dispute, he wished to know how he came by those principles.

All who have examined the nature of our knowledge, are aware that it is partly made up of direct impressions received by the senses, and partly of ideas which never were, at least in their ideal state, perceived by the senses. It is this latter part which has agitated the schools. On the one side, men have declared it to be wholly independent of the senses—to be the pure action of the soul. In its simplest form, this doctrine may be called the doctrine of Innate Ideas. On the other side, men have as vigorously argued that, although all our ideas were not absolutely derived from the senses in a direct manner, yet they were all so derived in an indirect manner; thus, we have never *seen* a mermaid; but we have seen both a fish and a woman, and to combine these two impressions is all that the mind does in conceiving a mermaid. This doctrine is pushed to its limits in the eighteenth-century philosophy, which says, *Penser, c'est sentir:* thought is a transformed sensation.

Plato, in adopting the former view, rendered it more cogent than most of his successors; for is it not somewhat gratuitous to say, we are born with such and such ideas? It is different from saying we are born with certain faculties: *that* would be admissible. But, to be driven into a corner, and on being asked, whence came those ideas? to answer, they are innate,—is a pure *petitio principii.* What proof have you that they are innate? Merely the proof that you cannot otherwise account for them?

Plato was more consistent. He said The Soul is and ever was immortal. In its anterior states of existence it had accurate conceptions of the eternal Truth. It was face to face with Existence. Now, having descended upon earth, having passed into a body, and, being subject to the hindrances of that bodily imprisonment, it is

no longer face to face with Existence: it can see Existence only through the ever-changing flux of material phenomena. The world is only *becoming*, never *is*. The Soul would apprehend only the *becoming*, had it not some recollection of its anterior state—had it not in some sort the power of tracing the unvarying Idea under the varying phenomena. When, for example, we see a stone, all that our senses convey is the appearance of that stone: but, as the stone is large or small, the soul apprehends the Idea of Greatness; and this apprehension is a reminiscence of the world of Ideas, awakened by the sensation. So when we see or hear of a benevolent action, besides the fact, our Soul apprehends the Idea of Goodness. And all our recollection of Ideas is performed in the same way. It is as if in our youth we had listened to some mighty orator whose printed speech we are reading in old-age. That printed page, how poor and faint a copy of that thrilling eloquence! how we miss the speaker's piercing, vibrating tones, his flashing eye, his flashing face! And yet that printed page in some dim way recalls those tones, recalls that face, and stirs us somewhat as we then were stirred. Long years and many avocations have somewhat effaced the impression he first made, but the printed words serve faintly to recall it. Thus it is with our immortal Souls. They have sojourned in that celestial region where the voice of Truth rings clearly, where the aspect of Truth is unveiled, undimmed. They are now sojourning in this fleeting, flowing river of life, stung with resistless longings for the skies, and solaced only by the reminiscences of that former state which these fleeting, broken, incoherent images of Ideas awaken in them.

It is a mistake to suppose this a mere poetical conception. Plato never sacrifices logic to poetry. If he sometimes calls poetry to his aid, it is only to express by it those ideas which logic cannot grasp, ideas which are beyond demonstration; but he never indulges in mere fancies. Instead therefore of saying that Reason was occupied with innate ideas, he consistently said that everything which the senses did not furnish was a reminiscence of the world of Ideas.

We are now in a condition to answer the question with which the last Section was closed,—How to ascertain the Truth, if Phenomena are not exact copies of Noumena? The sensation awakens recollection, and the recollection is of Truth; the soul is confronted with the Many by means of Sense, and by means of Reason it detects the One in the Many; *i. e.* the particular things perceived by Sense awaken the recollection of Universals or Ideas. But this

recollection of Truth is always more or less imperfect. Absolute Truth is for the Gods alone. No man is without some of the divine spark. Philosophers alone have any large share; and they might increase it by a proper method.

The philosophy of Plato has two distinct branches, somewhat resembling what we found in Parmenides. The universe is divided into two parts: the celestial region of Ideas, and the mundane region of material phenomena. These answer very well to the modern conception of Heaven and Earth. As the phenomena of matter are but copies of Ideas (not, as some suppose, their bodily *realization*), there arises a question: How do Ideas become Matter? In other words: How do Things participate in Ideas? We have mooted the question in the former Section, where we said that it admitted of no satisfactory solution; nor does it; and we must not be surprised to find Plato giving, at different times, two very different explanations. These two explanations are too curious to be overlooked. In the *Republic*, he says that God, instead of perpetually creating individual things, created a distinct type (Idea) for each thing. From this type all other things of the class are made. Thus, God made the Idea of a bed: according to this type, any carpenter may now fashion as many beds as he likes, in the same way as an artist may imitate in his paintings the types already created, but cannot himself create anything new. The argument, as an illustration of Plato's Method, may be given here:—

'Shall we proceed according to our usual Method? That Method, as you know, is the embracing under one general Idea the multiplicity of things which exist separately, but have the same name. You comprehend?

'Perfectly.

'Let us take anything you like. For instance, there is a multiplicity of beds and tables?

'Certainly.

'But these two kinds are comprised, one under the Idea of a bed, and the other under the Idea of a table?

'Without doubt.

'And we say that the carpenter who makes one of these articles, makes the bed or the table according to the Idea he has of each. For he does not make the Idea itself. That is impossible?

'Truly, that is impossible.

'Well, now, what name shall we bestow on the workman whom I am now going to name?

'What workman?

'Him who makes what all the other workmen make separately.

'You speak of a powerful man!

'Patience; you will admire him still more. This workman has not only the talent of making all the works of art, but also all the works of nature; plants, animals, everything else; in a word, himself.* He makes the Heaven, the Earth, the Gods; everything in Heaven, Earth, or Hell.

'You speak of a wonderful workman, truly!

'You seem to doubt me? But, tell me, do you think there is no such workman; or, do you think that in one sense any one could do all this, but in another no one could? Could you not yourself succeed in a certain way?

'In what way?

'It is not difficult; it is often done, and in a short time. Take a mirror, and turn it round on all sides: in an instant you will have made the sun and stars, the earth, yourself, the animals and plants, works of art, and all we mentioned.

'Yes, the images, the appearances, but not the real things.

'Very well; you comprehend my opinion. The painter is a workman of this class, is he not?

'Certainly.

'You will tell me that he makes nothing real, although he makes a bed in a certain way?

'Yes; but it is only an appearance, an image.

'And the carpenter, did you not allow that the bed which he made was not the Idea which we call the essence of the bed, the real bed, but only a certain bed?

'I said so, indeed.

'If, then, he does not make the Idea of the bed, he makes nothing real, but only something which represents that which really exists. And, if any one maintain that the carpenter's work has a real existence he will be in error.'†

In the *Timæus*, perhaps the most purely expository of all his works, and unquestionably one of the latest, Plato takes a totally different view of the creation of the world. God is there said, not

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* Τά τε ἄλλα καὶ ἑαυτόν. We are inclined to regard this passage as corrupt, the self-creation of God being certainly no Platonic notion; at least not countenanced by any other passage in any other work. The scholiast makes no comment on it.

† *Repub.* x. 467–8, ed. Bekker.

to create types (Ideas); but, these types having existed from all eternity, God in fashioning Chaos fashioned it *after the model of these Ideas*. In this view there is no participation in the *nature* of Ideas, but only a participation in their *form*.

Whichever hypothesis he adopted (and Plato did not much care for either), this conception of Heaven and Earth as two different regions, is completed by the conception of the double nature of the soul; or rather, of two souls: one Rational and the other Sensitive. These two souls are closely connected, as the two regions of Ideas and Phenomena are connected. Neither of them is superfluous; neither of them, in a human sense, sufficient: they complete each other. The Sensitive soul awakens the reminiscences of the Rational soul; and the Rational soul, by detecting the One in the Many, preserves Man from the scepticism inevitably resulting from mere sense-knowledge.

Thus did Plato resume in himself all the conflicting tendencies of his age; thus did he accept each portion of the truth supposed to be discovered by his predecessors, and reconcile these portions in one general tendency. In that vast system, all scepticism and all faith found acceptance: the scepticism was corrected, the faith was propped up by more solid arguments. He admitted, with the sceptics, the imperfection of all sense-knowledge; but, though imperfect, he declared it not worthless: it is no more like the Truth than phenomena are like Ideas; but, as phenomena are in some sort modelled after Ideas, and do, therefore, in some dim way, represent Ideas, so does sense-knowledge lead the patient thinker to something like the Truth: it awakens in him reminiscence of the Truth. As Ritter says, 'He shows, in detail, that in the world of sense there is no perfect likeness, but that an object which at one time appears like, is at another thought to be unlike, and is, therefore, defective in completeness of resemblance, and has at most but a tendency thereto. The same is the case with the Beautiful, the Good, the Just, the Holy, and with all that really *is*; in the sensible world there is nothing exactly resembling them, neither similar nor dissimilar; all, however, that possesses any degree of correspondence with these true species of being is perceived by us through the senses, and thereby reminds us of what truly is. From this it is clear that he had previously seen it somewhere, or been conscious of it, and, as this could not have been in the present, it must have been in some earlier state of existence. In this respect there is a close connection between this doctrine and the view of sensible

objects, which represents them as mere copies or resemblances of the super-sensible truth; for, even in perception, a feeling arises upon the mind, that all we see or hear is very far from reaching to a likeness to that which is the true being and the absolutely like; but that, striving to attain, it falls short of perfect resemblance; and consequently, the impressions of the sense are mere tokens of the eternal ideas, whose similitude they bear, and of which they are copies.'

§ VI. Summary of Plato's Dialectics.

Having exhibited Plato's conceptions of Method, of Ideas, and of the Soul, it will now be convenient to take a brief review of them, to exhibit their position in the general doctrine.

Dialectics was the base of the Platonic doctrine. Indeed, Plato believed in no other Science: Dialectics and Philosophy were synonymous. For Dialectics (or Logic) to be synonymous with Philosophy, the theory of Ideas was necessary. Dialectics is the science of general propositions, of general terms, of universals. To become *the* science it must necessarily be occupied with more important things. Ideas are these important things; for Ideas are at once the only real Existences, and General Terms. Whoso discoursed about General Terms discoursed about Existence; and deeper than that, no science could hope to penetrate. Plato, whose opinions can scarcely ever be accepted as final, is both explicit and constant in his conception of Dialectics as *the* science. To determine the real nature of science, he devotes an entire dialogue: the *Theætetus*. That remarkable work is purely critical; it refutes the opinions of adversaries, in such a way as to leave no doubt as to Plato's own opinion. All attempts to constitute science either upon perception (*αἴσθησις*) or upon opinion (*δόξα*) he refutes in an irresistible manner. Perception can only be of objects which have no stability, which have no real Existence. Opinion, though it be correct, is unable to constitute science; for there are two sorts of opinion,—false and true; and to distinguish the true from the false would require a science which knew the Truth. It follows, as a necessary consequence, that Ideas, which are the real immutable elements of science, must be known in themselves, and that science consists in seeking the order of development of these Ideas; that is to say, in Dialectics.

Owing to the Ideal theory, Dialectics was necessarily *the* science;

that is, the science of Being. The distinction between his Dialectics and the Logic of his successors is very marked. While he spoke of Dialectics as the art of methodical classification of genera, —the art of speaking upon general notions,—he did not confine it to *subjective* truth; for he believed this subjective truth to be only a reflex of the objective reality: he believed that abstract ideas were images of real existences. Dialectics was therefore not only the 'art of thinking,' but the science of immutable being.

In the twofold aspect of Creation there was this division of knowledge :—

PERCEPTION.

Matter, phenomena, *τὰ γιγνόμενα* = Sensation = Opinion.

DIALECTICS.

Existence, Ideas, *τὰ ὄντα* = Abstract Ideas = Science.

In the everchanging flux of Becoming, which was the object of Perception, there were traces of the immutable Being, which was the object of science. This distinction may be applied to Plato's own manifold works. We may say of them that the opinions on psychology, physics, ethics, and politics are constantly changing, uncertain; but amidst all these various opinions there reigns one constant Method. He never wavers as to Dialectics. We may therefore fully understand the importance bestowed on Dialectics; and we may also clearly see what is meant by identifying his Philosophy with Dialectics.

The basis of the Platonic doctrine therefore is *Dialectics;* the subject-matter of Dialectics consists of *Ideas;* and the Method consists of *Definitions, Analysis,* and *Induction.*

§ VII. PLATO'S THEOLOGY AND COSMOLOGY.

Hitherto we have been occupied solely with the general doctrine; we have now to descend to particulars. But, as so often remarked, particular doctrines have scarcely any stability in the Platonic writings; what is advanced today is refuted tomorrow; accordingly, critics and historians have squabbled about these wavering opinions, as if agreement were possible. One declares Plato held one opinion; and cites his passages in proof. Another thinks his predecessor a blockhead; and cites other passages wholly destructive of the opinion Plato is said to have maintained. A third comes, and, stringing passages from one dialogue to passages from another, interprets the whole in his own way. A consistent Theological doc-

trine will not therefore be expected from us: we can only reproduce some of the Platonic notions, those especially which have influenced later thinkers.

In the same way as Plato sought to detect the One amidst the Multiplicity of material phenomena, and, having detected it, declared it to be the real essence of matter, so also did he seek to detect the One amidst the Multiplicity of Ideas, and, having detected it, declared it to be God. What Ideas were to Phenomena, God was to Ideas: the last result of generalization. God was thus the One Being comprising within himself all other Beings, the ἓν καὶ πολλά, the Cause of all things, celestial and terrestrial. God was the supreme Idea. Whatever view we take of the Platonic cosmology—whether God created Ideas, or whether he only fashioned unformed matter after the model of Ideas—we are equally led to the conviction, that God represented the supreme Idea of all Existence; the great Intelligence, source of all other Intelligences; the Sun whose light illumined creation. God is perfect, ever the same, without envy, wishing nothing but good: for, although a clear knowledge of God is impossible to mortals, an approximation to that knowledge is possible: we cannot know what he is, we can only know what he is like. He must be good, because self-sufficing; and the world is good, because he made it. Why did he make it? God made the world because he was free from envy, and wished that all things should resemble him as much as possible; he therefore *persuaded* Necessity to become stable, harmonious, and fashioned according to Excellence. Yes, *persuaded* is Plato's word; for there were two eternal Principles, *Intelligence* and *Necessity*, and from the mixture of these the world was made; but Intelligence persuaded Necessity to be fashioned according to Excellence.* He arranged chaos into Beauty. But, as there is nothing beautiful but Intelligence, and as there is no Intelligence without a Soul, he placed a Soul into the body of the World, and made the World an animal.

Plato's proof of the world being an animal is too curious a specimen of his analogical reasoning to be passed over. There is warmth in the human being; there is warmth also in the world: the human being is composed of various elements, and is therefore

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* Μεμιγμένη γὰρ οὖν ἡ τοῦδε τοῦ κόσμου γένεσις ἐξ ἀνάγκης τε καὶ νοῦ συστάσεως ἐγεννήθη, νοῦ δὲ ἀνάγκης ἀρχόντος τῷ πείθειν αὐτὴν τῶν γιγνομένων τὰ πλεῖστα ἐπὶ τὸ βέλτιστον ἄγειν.—*Timæus*, p. 56.

called a body; the world is also composed of various elements, and is therefore a body; and, as our bodies have souls, the body of the world must have a soul; and that soul stands in the same relation to our souls, as the warmth of the world stands to our warmth.* Having thus *demonstrated* the world to be an animal, it was but natural he should conceive that animal as resembling its creator, and human beings as resembling the universal animal, *τὸ πᾶν ζῶον*. As soon as the World, that image of the eternal Gods, as soon as that vast Animal began to move, live, and think, God looked upon his work, and was glad.†

But, although God in his goodness would have made nothing evil, he could not prevent the existence of it. Various disputes have been warmly carried on by scholars, respecting the nature of this Evil which Plato was forced to admit. Some have conceived it nothing less than the Manichæan doctrine. Thus much we may say: the notion of an antagonist principle is inseparable from every religious formula: as God can only be Good, and as Evil does certainly exist, it must exist independently of him; it must be eternal. Plato cut the matter very short by his logical principle,—that since there was a Good, there must necessarily be the *contrary* of Good, namely, Evil. If Evil exists, *how* does it exist, and *where?* It cannot find place in the celestial region of Ideas. It must therefore necessarily dwell in the terrestrial region of phenomena: its home is the world; it is banished from heaven. And is not this logical? What is the world of Phenomena but an imperfect copy of the world of Ideas, and how can the imperfect be the purely Good? When Ideas are 'realized,' as the Pantheists would say, when Ideas, pure immutable essences, are clothed in material forms, or when matter is fashioned after the model of those Ideas, what can result but imperfections? The Ideas *are* not in this world: they are only in a state of *becoming*, *ὄντως ὄντα*, not *γιγνόμενα*. Phenomena are in their very nature imperfect: they are perpetually striving to exist as realities. In their constitution there is *something* of the divine: an image of the Idea, and some participation in it; but more of the primeval chaos.

Those, therefore, who say that Plato thought that 'Evil was

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* *Philebus*, pp. 170–1.

† *Ὡς δὲ κινηθὲν αὐτὸ καὶ ζῶν ἐνενόησε τῶν ἀϊδίων θεῶν γεγονὸς ἄγαλμα ὁ γεννήσας πατὴρ, ἠγάσθη τε καὶ εὐφρανθεὶς ἔτι δὴ μᾶλλον ὅμοιον πρὸς τὸ παράδειγμα ἐπενόησεν ἀπεργάσασθαι.—Timæus*, p. 36.

inherent in matter,' though expressing themselves loosely, express themselves on the whole correctly. Matter was the great Necessity which Intelligence fashioned. Because it was Necessity and unintelligent, it was Evil, for Intelligence alone can be good.*

Now, as this world of phenomena is the region where Evil dwells, we must use our utmost endeavours to escape from it. And how escape? By suicide?—No. By leading the life of the Gods; and every Platonist knows that the life of the Gods consists in the eternal contemplation of Truth, of Ideas. Thus, as on every side, are we forced to encounter Dialectics as the sole salvation for man.

From the above explanation of the nature of Evil, it will be seen that there is no contradiction in Plato's saying, that the quantity of Evil in this life exceeded that of the Good; it exceeds it in the proportion that phenomena exceed noumena,—that matter exceeds Ideas.

But although Evil be a necessary part of the world, it is in constant struggle with Good. What is this but the struggle of *Becoming?* And man is endowed with Free Will and Intelligence: he may therefore choose between Good and Evil.† And according to his choice will his future life be regulated. Metempsychosis was a doctrine Plato borrowed from Pythagoras; and in that doctrine he could find arguments for the enforcement of a sage and virtuous life, which no other afforded at that epoch.

We have said nothing of the arguments whereby Plato proves the existence of God; for we have been forced to pass over many details: but we cannot close this chapter without alluding to an argument often used in modern times, and seldom suspected to have had so ancient an upholder,—God is proved to exist, by the very feeling of affinity to his nature which stirs within our souls.

Such opinions as those above set down were certainly expressed by Plato at different times: but we again warn the reader against

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* In the *Laws*, x. pp. 201–2, he curiously distinguished the νοῦς from the ψυχή in this manner. The ψυχή (vital principle) is the self-moving principle; but, inasmuch as it is sometimes moved to *bad* as well as to *good* (τῶν τε ἀγαθῶν αἰτίαν εἶναι ψυχὴν καὶ τῶν κακῶν), it was necessary to have some other principle which should determine its direction. He therefore makes νοῦς (intelligence) the principle which determines the soul (whether the soul of the world or of man, it is the same) to good; and ἄνοια (ignorance—want of *nous*) which determines it to evil.

† *Laws*, x. p. 217.

supposing them to have been his constant views. They are taken from works written at wide intervals, and bearing considerable difference of opinion; and in those very works there are occasional glimpses of an appalling doctrine, namely, that man is but the plaything of God, who alternately governs and forsakes the world. The first clause of this sentence seems derived from Heraclitus, who said, that 'making worlds was the sport of Demiurgos.' Plato's words are these: *ἄνθρωπον δὲ θεοῦ τι παιγνίον εἶναι μεμηχανημένον*: and this is said to be man's greatest excellence.* The second clause is formally expressed by Plato thus: 'God,' he says, 'alternately governs and forsakes the world; when he governs it, things go on well: it is the age of gold; when he forsakes it, the world suddenly turns round in a contrary orbit,—a fearful crisis takes place, all things are disordered, mundane existence is totally disarranged, and only after some time do things settle down to a sort of order, though of a very imperfect kind.'†

§ VIII. Plato's View of the Beautiful and the Good.

So much has been written and talked in modern times of *τὸ καλόν*, 'the Beautiful,' as conceived by Plato, and this by persons who never read a line of his works, that we must devote a few sentences to it.

The bond which unites the human to the divine is Love. And Love is the longing of the Soul for Beauty; the inextinguishable desire which like feels for like, which the divinity within us feels for the divinity revealed to us in Beauty. This is the celebrated Platonic Love, which, from having originally meant a communion of two souls, and that in a rigidly dialectical sense, has been degraded to the expression of maudlin sentiment between the sexes. Platonic love meant ideal sympathy; it now means the love of a sentimental young gentleman for a woman he cannot or will not marry.

But what is Beauty? Not the mere flattery of the senses. It does not consist in harmonious outlines and resplendent colours: these are but the *indications* of it. Beauty is Truth. It is the radiant image of that which was most splendid in the world of Ideas. Listen to Plato's description of it in the *Phædrus*:—'For, as we have already said, every human soul has actually seen the

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* *Laws*, vii. p. 32.

† *Politicus*, p. 280.

Real Existences, or it would not have come into a human shape. But it is not easy for all of them to call to mind what they then saw; those, especially, which saw that region for a short time only, and those which, having fallen to the earth, were so unfortunate as to be turned to injustice, and consequent oblivion of the sacred things which were seen by them in their prior state. Few, therefore, remain who are adequate to the recollection of those things. These few, when they see here any image or resemblance of the things which are there, receive a shock like a thunderbolt, and are in a manner taken *out of themselves;* but, from deficiency of comprehension, they know not what it is which so affects them. Now, the likenesses which exist there of Justice and Temperance, and the other things which the soul honours, do not possess any splendour; and a few persons only, with great difficulty, by the aid of dull, blunt, material organs, perceive the terrestrial likenesses of those qualities, and recognize them. But Beauty was not only most splendid when it was seen by us forming part of the heavenly possession or choir, but here also the likeness of it comes to us through the most acute and clear of our senses, that of sight, and with a splendour which no other of the terrestrial images of supercelestial Existences possess. They, then, who are not fresh from heaven, or who have been corrupted, are not vehemently impelled towards that Beauty which is aloft when they see that upon earth which is called by its name; they do not, therefore, venerate and worship it, but give themselves up to physical pleasure after the manner of a quadruped. But they who are fresh from those divine objects of contemplation, and who have formerly contemplated them much, when they see a godlike countenance or form, in which celestial beauty is imaged and well imitated, are first struck with a holy awe, and then, approaching, venerate this beautiful object as a god, and, if they were not afraid of the reputation of too raving a madness, would erect altars, and perform sacrifices to it.

'And the warmth and genial influence derived from the atmosphere which beauty generates around itself, entering through the eyes, softens and liquefies the inveterate induration, which coats and covers up the parts in the vicinity of the wings, and prevents them from growing. This being melted, the wings begin to germinate and increase, and this, like the growing of the teeth, produces an itching and irritation which disturbs the whole frame of the soul. When, therefore, by the contemplation of the beautiful object, the induration is softened and the wings begin to shoot, the soul is

relieved from its pain and rejoices; but when that object is absent, the liquefied substance hardens again, and closes up the young shoots of the wings, which consequently boil up and throb, and throw the soul into a state of turbulence and rage, and will neither allow it to sleep nor remain at rest, until it can again see the beautiful object, and be relieved. For this reason it never willingly leaves that object, but for its sake deserts parents, and brothers, and friends, and neglects its patrimony, and despises all established usages on which it valued itself before. And this affection is Love.'

The reader is doubtless by this time familiar enough with the Platonic philosophy to appreciate this passage. He will see the dialectical meaning of this poetical myth. He will comprehend, also, that the Platonic Love is naturally more appropriate between two men, master and pupil, than between the two sexes; because it is then purer, and less disturbed by other feelings.

Beauty is the most vivid image of Truth: it is divinity in its most perceptible form. But what is the Good? The Good, *τὸ ἀγαθόν*, is God, but God considered in the abstract. Truth, Beauty, Justice, are all aspects of the Deity; Goodness is his nature. The Good is therefore incapable of being perceived; it can only be known in reflection. In the same manner as the sun is the cause of sight, and also the cause of the objects of sight growing and being produced, so also the Good is the cause of science, and the cause of being to whatever is the object of science: and, as the sun itself is not sight, nor the object of sight, but presides over both; so also the Good is not science, nor the object of science, but is superior to both, for they are not the Good, but goodly.

§ IX. Plato's Ethics.

Plato was a Socratist. Hitherto, however, we have seen him following his master only in his Method. The speculations on Ideas, Reminiscence, Metempsychosis, God, etc. were things he did not learn from Socrates, although the Socratic Method led him to these conceptions. We have before seen that Socrates occupied himself almost exclusively with Ethical topics; and it is in Ethics, therefore, that we may expect to find Plato resembling him.

Plato's ethical opinions are logical rather than ethical; that is to say, they are deductions from certain abstract logical premisses, not from investigations into human nature. Thus, when 'engaged

with the discussion of particular sciences, he resolves them into the science of Good; when engaged with the particular virtues, he resolves them into the virtue of Science.'* Everywhere the Good and the True are convertible terms, and Virtue is the same as Science. There is, moreover, considerable contradiction in his various works on this, as on other points. In one dialogue (*Timæus*) he advocates Free Will; in another (*Hippias Minor*), Fatalism. Sometimes vice is involuntary, at other times voluntary: sometimes, indeed generally, vice is nothing but ignorance; elsewhere, as we have shown, vice is said to be partly ignorance and partly incontinence. Virtue is said to be Science; yet Knowledge alone does not constitute Happiness, nor can Virtue be taught.

Although, therefore, many passages may be quoted in which morals are worthily spoken of, we cannot but regard as chimerical any attempt to deduce from them an ethical system. All that can safely be relied on is general views; such, for instance, as his subordination of Ethics to Dialectics. As M. De Gerando well observes, 'he did not found his ethics on a principle of obligation, on the definition of duty, but on the tendency to perfection.'

In Plato's Ethics the passions are entirely set aside; they are regarded as disturbances in the moral economy. Virtue is purely a matter of intelligence; and the intellect has therefore not only a regulative office, but the supreme direction of all action.† Now, as Chamfort admirably said, 'the Philosopher who would set aside the passions resembles a Chemist who would extinguish his fire.' We are all aware that it is very common 'to know the right, and yet the wrong pursue;' that the passions not only disturb the regulative action of Reason, but positively triumph over it; and that morals are our *mores*, our *habits*, as much as our beliefs.

The Ethics of Plato might suit the inhabitants of another world; they are useless to the inhabitants of this. His Politics are his Ethics applied to the State, and labour under the same errors. But his Utopian Government, the *Republic*, has had too much celebrity for us to neglect it.

The *Republic* is unquestionably one of the most interesting of his works; and so slow has been the progress of social science,

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* Archer Butler, *Lectures*, ii. 61.

† We cannot interrupt our exposition with any examples; they are too numerous. But we may remind the student of that passage in the *Gorgias* respecting the misery of the unjust man, in which Plato endeavours to prove that he who does an injury suffers more than he who endures it.

compared with every other science, that many of the views Plato has there put forth are still entertained by very serious thinkers; whereas his views on morals seldom, his views on physics never find a defender.

The weakness of man is the cause why States are formed. As he cannot suffice to himself, he must live in society. This society should be an image of man himself. The faculties which belong to him must find a proper field of activity in society; and this vast union of intellects should form but one intelligence. Thus man's virtues are, 1, *φρόνησις*, wisdom; 2, *ἀνδρεία*, fortitude; 3, *σωφροσύνη*, temperance; 4, *δικαιοσύνη*, justice. The State, therefore, must have its Rulers, the philosophers, who will represent wisdom; its Soldiers, who will represent fortitude; its Craftsmen and burghers, who will represent temperance. Justice is a quality which must be shared by all classes, as lying at the root of all virtuous action.

In wisdom and justice we have the alpha and omega of Plato's doctrine: justice is wisdom in act. The office of the Rulers is therefore to ordain such laws as will eventually prevent all injustice in the State. Their first care will be to instil into the minds of the citizens just notions respecting the Deity. All those who attribute to the Deity the passions and imperfections of men must be banished: hence the famous banishment of the poets, of which so much has been said. This law, pushed to its rigorous conclusions, is the law of fanaticism. Whatever the Rulers believed respecting Religion, was to be the Religion of the State. Strange that a pupil of Socrates should have advocated a law, the operation of which caused his master's condemnation! But there are other causes for the banishment of the poets besides their fictions respecting the Gods. They enervate the soul by pictures of immoderate desires; they give imitations of the vices and follies of men; they overstep the limits of that moderation which alone can balance the soul. Even the musicians are to be banished; those at least who are plaintive and harmonious. Only the Dorian and the Phrygian music can be admitted; the one impetuous and warlike, the other calm.

There is a germ of Stoicism in Plato, and that germ is here seen developed. A measured equability of mind was his ideal of human happiness, and anything which interfered with it was denounced. Poetry and music interfered with this equability, and so did conjugal love. As the State could not subsist without children, children must be begotten. But parents are foolishly fond; they are avaricious for their children; ambitious for them. Husbands are

also foolishly fond. To prevent these disturbances of good order, Plato ordains community of wives, and interdicts parentage. Women are to be chosen for marriage as brood-mares are chosen. The violent women to be assorted to the mild men; the mild to be assorted to violent men. But the children belong to the State. They are, therefore, to be consigned to the State Nurses, who will superintend their early education. Because children manifest different capacities, Plato thought with St. Simon, that each citizen should be ranked according to his capacity, the State would undertake to decide to which class the young man should belong. But, if domestic life is thus at a blow sacrificed to the public good, do not imagine that women will lose their occupations. No: women must share with men the toils of war and agriculture. The female dog guards sheep as well as the male; why should not the woman guard the State?* And, as some few women manifest a capacity for philosophy, those few will share with men the government. With community of wives and children, it is natural that community of property should be joined. Property is the great disturber of social life; it engenders crimes and luxuries which are scarcely better than crimes. Property, therefore, must be abolished. The State alone has riches.

In one word, the Family, no less than the individual, is sacrificed to the State; the State itself being an Abstraction. Like the Utopists of modern days, Plato has developed an *à priori* theory of what the State should be, and by this theory all human feelings are to be neglected; instead of developing a theory *à posteriori, i.e.* from an investigation into the nature of human wants and feelings.

By thus reducing the *Republic* to its theoretical formula, we are doubtless viewing it in its most unfavourable light. Its value, and its interest, do not consist in its political ideas, but in its collateral suggestions on education, religion, and morals. But these are beside our present purpose.†

Willingly would we discourse upon this remarkable book at greater length; but, although we have only touched on a few points connected with Plato, we have already exhausted the space we could afford, and must close here this imperfect account of one of the greatest minds of antiquity. If we have assigned him his due

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* This is Plato's own illustration.

† In the *Laws*, many of the political and social notions are modified; but the general theory is the same.

position in the history of human development—if we have in some sort presented the reader with a clue, whereby he may traverse the labyrinth of that celebrated but much misrepresented writer—if we have succeeded in conveying some impression of the man, more consonant with truth than that usually accredited, we have performed our task.

SEVENTH EPOCH.

PHILOSOPHY AGAIN REDUCED TO A SYSTEM: CLOSE OF THE SOCRATIC MOVEMENT.—ARISTOTLE.

CHAPTER I.

ARISTOTLE.

§ I. Life of Aristotle.

WHEN Plato was leaving Athens for the journey into Sicily, of which we have spoken, and which occupied him three years or more, Aristotle appeared in that active city, a restless youth of seventeen; rich both in money and in knowledge, eager, impetuous, truth-loving, and insatiable in his thirst for philosophy. Tidings of the wondrous men who made that city illustrious, and whose fame still sheds a halo round its ruins, had reached him in his native land; tidings of the great thinkers and the crowded schools had lured him, though so young, to Athens.

Aristotle was born at Stagira, a colony in Thrace, Olympiad 99 (B. C. 384). His father Nicomachus was an eminent physician, who had written several works on medicine and natural history; so that Aristotle's love of such subjects may be called hereditary. And this hereditary love, so conspicuous in the marvellous results of the two treatises on the *History of Animals* and the *Parts of Animals* —works which modern science is daily enabling us to appreciate better—may have been fostered by the opportunities Stagira offered him in his boyhood. It was a town on the western side of the Strymonic Gulf, just where the general line of coast takes a southerly direction. Immediately south a promontory ran out towards the east, effectually screening the town and its little harbour Capros (formed by the island of the same name), from the violence of the squalls coming up the Ægean. 'In the terraced windings too, by which the visitor climbs through the orange groves of Sorrento, he may without any great violence imagine the narrow and steep paths by which an ancient historian and chorographer describes those who crossed the mountains out of Macedonia, as de-

scending into the valley of Arethusa, where was seen the tomb of Euripides and the town of Stagira.'*

Aristotle, losing his parents at an early age, was consigned to the care of a certain Proxenus, who had him instructed in all the physical knowledge of the time. Proxenus died, and Aristotle then fulfilled his desire of seeing Athens.

During the three years of Plato's absence Aristotle was not idle. He prepared himself to be a worthy pupil. His wealth enabled him to purchase those costly luxuries, Books—there was no cheap Literature in those days—and in them he studied the speculations of the early thinkers, with a zeal and intelligence of which his own writings bear ample evidence. There were also some friends and followers of Socrates and Plato still at Athens: men who had listened to the entrancing conversation of the 'old man eloquent,' who could still remember with a smile his keen and playful irony; and others who were acquainted with some of the deep thoughts brooding in the melancholy soul of Plato. These Aristotle eagerly questioned, and from them prepared himself to receive the lessons of his future teacher.

Plato returned. His school was opened, and Aristotle joined the crowd of his disciples, amongst whom the penetrating glance of the master soon detected the immortal pupil. Plato saw that the impetuous youth needed the curb; but there was promise of greatness in that very need. His restless activity was characterized by Plato in an epithet: 'Aristotle is the *Mind* of my school.'

Aristotle continued to listen to Plato for seventeen years; that is, till the death of the latter. But he did not confine himself to the Platonic philosophy: nor did he entirely agree with it. And from this disagreement has arisen the vulgar notion of a personal disagreement between Master and Pupil: a notion, to be sure, propped up with pretended anecdotes, and refuted by others equally authentic. Much has been written on this quarrel, and on what people call Aristotle's ingratitude. We place no reliance on it. The same thing was said of Plato with respect to Socrates; and we have excellent reasons for treating that as calumny. In his writings Aristotle doubtless combats the opinion of Plato; but he always mentions him with respect, sometimes with tenderness. If that be ingratitude, it is such as all pupils have manifested who have not been slavish followers.†

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* Blakesley's *Life of Aristotle*, p. 12.

† The question is discussed with ability by Mr. Blakesley in his *Life of*

It was a wise thought of Macedonian Philip to give his son Alexander such a preceptor as Aristotle. For four years was the illustrious pupil instructed by the illustrious master in poetry, rhetoric, and philosophy; and, when Alexander departed on his Indian expedition, a scholar of Aristotle's, one Callisthenes, attended him.* Both from Philip and from Alexander, the Stagirite received munificent assistance in all his undertakings: especially in the collection of natural curiosities, which were selected from captured provinces, to form the materials of the *History of Animals*.

'The conqueror is said, in Athenæus, to have presented his master with the sum of eight hundred talents (about two hundred thousand pounds sterling) to meet the expenses of his *History of Animals*, and, enormous as the sum is, it is only in proportion to the accounts we have of the vast wealth acquired by the plunder of the Persian treasures. Pliny also relates that some thousands of men were placed at his disposal for the purpose of procuring zoological specimens, which served as materials for this celebrated treatise.'† However he acquired his materials, it is becoming daily more evident that his work was based on direct knowledge, on actual inspection and dissection, not, as in Pliny's case, on what others reported. Several of the most astonishing discoveries of modern naturalists are found to have been distinctly known to Aristotle; and even on such subtle questions as the affinities of animals we are sometimes forced to come round to his classification. 'Thus, in the end,' says Professor Forbes, in summing up his discussion on the classification of Acalephs, 'we revert curiously enough to the views of the affinities of these Animals proposed by Aristotle, who plainly included under the designation of *ἀκαλήφη*, both Actiniæ and Medusæ: not from any vague guess, or in compliance with the popular recognition of their resemblance, but from a careful study of their structure and habits, as the varied notices preserved to us in the first, fourth, and fifth, eighth, and ninth books of the *History of Animals* prove beyond question.'‡

Aristotle, pp. 24–28. See also Stahr's article on Aristotle in the *Dictionary of Greek and Roman Biography*.

* The story that Aristotle himself accompanied Alexander is now universally discredited.

† Blakesley, p. 68.

‡ Forbes, *Monograph of the Naked-Eyed Medusæ*, p. 88. On the subject of Aristotle's zoological knowledge generally, see Meyer, *Aristotelis Thierkunde*, 1855, and De Blainville, *Histoire des Sciences de l'Organisation*, 1845.

After a long interval Aristotle returned to Athens and opened a school in the Lyceum : a school which eclipsed all the others both in numbers and importance. It is curiously illustrative of his restless vivacious temperament that he could not stand still and lecture, but delivered his opinions whilst walking up and down the shady paths of the Lyceum, attended by his eager followers. Hence his disciples were called the Walking Philosophers : Peripatetics.

Mr. Blakesley thinks that it was Aristotle's delicate health which, combined with the wish to economize time, induced him to lecture while walking. Diogenes Laertius attributes its origin to a regard for the health of his pupil, Alexander. The point is unimportant; enough for us to know that he did lecture while walking to and fro along the shady paths of the Lyceum. Protagoras, as Mr. Blakesley reminds us, is represented by Plato as teaching in the same way ; although not perhaps so systematically as Aristotle.

His lectures were of two kinds: scientific and popular : *acroamatic* or *acroatic,* and *exoteric.* The former were for the more advanced students, and those who were capable of pursuing scientific subjects ; he delivered these in the morning. The latter were afternoon lectures to a much larger class, and treated of popular subjects ; rhetoric, politics, and sophistics. Much learning and ingenuity has been thrown away in the endeavour to determine the precise nature of these two kinds of instruction ; but we cannot here discuss it. Those who conclude that the distinction between the esoteric and exoteric was a distinction of doctrine seem to us in error ; the distinction was, as above stated, purely that of subject-matter. Dialectics and Poetics are not addressed to the same hearers.

He spent a long laborious life in the pursuit of knowledge, and wrote an incredible number of works, about a fourth of which it is calculated are extant ; the division, arrangement, and authenticity of which has long been a pet subject of contention amongst scholars ; but, as no agreement has yet been effected, we should have to swell our pages with arguments rather than results.

The influence these works, spurious as well as genuine, have exercised on European culture, is incalculable, and we shall hereafter have to speak of the tyranny of this influence. Nor was it alone over European culture they exercised a despotic sway. 'Translated in the fifth century of the Christian era into the Syriac language by the Nestorians who fled into Persia, and from Syriac into Arabic four hundred years later, his writings furnished the Mohammedan conquerors of the East with a germ of science which but for the effect

of their religious and political institutions might have shot up into as tall a tree as it did produce in the West; while his logical works, in the Latin translation which Boethius, "the last of the Romans," bequeathed as a legacy to posterity, formed the basis of that extraordinary phenomenon, the Philosophy of the Schoolmen. An empire like this, extending over nearly twenty centuries of time, sometimes more sometimes less despotically, but always with great force, recognized in Bagdad and in Cordova, in Egypt and in Britain, and leaving abundant traces of itself in the language and modes of thought of every European nation, is assuredly without a parallel.'*

§ II. Aristotle's Method.

Plato and Aristotle may be said to contain all the speculative philosophy of Greece: whoso knows them, knows all that Greece had to teach. It is not our plan to draw comparisons between the greatness of two great men, otherwise these two would furnish a happy subject. We have endeavoured to point out in what way Plato advanced the Philosophy of his age. We have now to do the same by Aristotle.

Aristotle was the most learned man of antiquity, but this learning did not enervate the vigour of his mind. He studiously sought, both in books and in external nature, for materials wherewith to build a doctrine. Before laying down his own views he always examines the views of his predecessors with tedious minuteness; and his own opinions often seem brought out in his criticisms rather than dogmatically affirmed. Hence some have declared his Method to be the historical Method; a misconception not to be wondered at when we consider the abundance of historical detail, and the absence of any express definition of his Method in his writings.

Unlike Plato, Aristotle never mentions the nature of his Method; but he has one, and we must detect it. We may expect to find it somewhat resembling that of his master, with some modifications of his own. Plato, as Van Heusde, in the *Initia Platonicæ* remarks, stands a middle point between Socrates and Aristotle. The Method of Socrates was one of Investigation; that of Aristotle was one of Demonstration. The Definition and Induction of Socrates were powerful, but vague; the Syllogism of Aristotle rendered them

* Blakesley, p. i.

powerful and precise. Plato, as it were, fills up the gap between these two thinkers; by the addition of Analysis and Classification he reduced the Socratic Method to a more systematic form, and gave it precision. Where Plato left it, Aristotle took it up; and, by still further modifications, all of which had but one aim,—*i.e.* greater precision,—he gave it a solidity which enabled it to endure for centuries.

Wherein did Plato and Aristotle fundamentally differ? Until the time of Hegel the general explanation of this difference was briefly to this effect: Plato is an Idealist, Aristotle a Materialist; the one a Rationalist, the other an Empiric: one trusting solely to Reason, the other solely to Experience. This explanation Hegel refuted by showing, that although Aristotle laid more stress upon experience than did Plato, yet he also expressly taught that Reason alone could form science.*

Let us, then, try if we can penetrate the real difference. And to do so, we must first ask, What was the fundamental position of the Platonic doctrine? That question admits of but one answer. The root of Plato's philosophy is the theory of Ideas, whereby Dialectics became science. If here Aristotle be found to agree with his master, there can be no fundamental difference between them; if here he be found to differ, we may be able to deduce from it all other differences.

Aristotle radically opposed the Ideal theory; and the greater part of his criticisms of Plato are criticisms of that theory. He does not deny to Ideas a *subjective* existence: on the contrary, he makes them the materials of science; but he is completely opposed to their *objective* existence, calling it an empty and poetical metaphor. He says, that on the supposition of Ideas being Existences and Models, there would be several Models for the same Thing; since the same thing may be classed under several heads. Thus, Socrates may be classed under the Ideas of Socrates, of Man, of Animal, and of Biped; or Philosopher, General, and Statesman. The 'stout Stagirite' not only perceived the logical error of the Ideal theory, but also saw how the error originated. He profoundly remarked, that Ideas are nothing but productions of the Reason, separating, by a logical abstraction, the particular objects from those relations which are common to them all. He saw that Plato had mistaken a subjective distinction for an objective

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* Hegel, *Geschichte der Philos.* ii. 311 *sq.*

one; had mistaken a relation, which the understanding perceived between two objects, for the evidence of a separate existence. The partisans of the theory of Ideas, Aristotle likens to those who, having to enumerate the exact number of things, commence by increasing the number, as a way of simplifying the calculation. In this caustic illustration we may see the nature of his objection to the Platonic doctrine. What, indeed, was the Ideal theory, but a multiplication of the number of Existences? Men had before imagined that things were great, and heavy, and black or brown. Plato separated the qualities of greatness, weight, and colour, and made these qualities new existences.

Having disproved the notion of Ideas being Existences,—in other words, of General Terms being anything more than the expressions of the Relations of individual things,—Aristotle was driven to maintain that the Individual Things alone *existed*. But, if only individuals exist, only by sensation can they be known; and, if we know them by sensation, how is the Universal, τὸ καθόλου, ever known—how do we get abstract ideas? This question was the more pertinent because science could only be a science of the Universal, or, as we moderns say, a science of general truths; now inasmuch as Aristotle agreed with Plato in maintaining that sense cannot furnish us with science,* which is always founded on general truths (Universals), it was needful for him to show how we could gain scientific knowledge.

Plato's solution of the problem has already been exhibited; it was the ingenious doctrine of the soul's *reminiscence* of a former apprehension of truth, awakened by those traces of Ideas which sensation discovered in Things. This solution did not satisfy Aristotle. He, too, was aware that reminiscence was indispensable; but by it he meant reminiscence of previous experience, not of an anterior state of existence in the world of Ideas. By sensation we perceive particular things; by *induction* we perceive the general in the particular. Sensation is the basis of all knowledge: but we have another faculty besides that of sensation; we have Memory. Having perceived many things, we remember our sensations, and by that remembrance we are enabled to discern wherein things resemble and wherein they differ; and this Memory then becomes an *art* whereby a general conception is formed: this art is Induction. The natural method of investigation, he says, is to collect all the facts

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* *Analyt. Post.* i. 31.

or particulars, and afterwards deduce from these the general causes of all things and their actions.* This is accomplished by Induction, which he aptly calls the pathway from particulars to generals—*ἐπαγωγὴ δὴ ἡ ἀπὸ τῶν καθέκαστα ἐπὶ τὰ καθόλου ἔφοδος.*† Man alone has this art. The distinction between brutes and men is, that the former, although they have Memory, have no Experience; that is to say, have not the art which converts Memory into Experience —the art of Induction. Man is the reasoning animal.

That Aristotle meant Induction by the art of which he speaks as furnished by experience, may be proved by one luminous passage of the *Metaphysics*. 'Art commences when, from a great number of Experiences, one general conception is formed which will embrace all similar cases.'‡ And, lest there should be any misunderstanding of his definition, he proceeds to illustrate it. 'Thus: if you know that a certain remedy has cured Callias of a certain disease, and that the same remedy has produced the same effect on Socrates, and on several other persons, that is *Experience;* but to know that a certain remedy will cure all persons attacked with that disease is *Art:* for Experience is the knowledge of individual things (*τῶν καθέκαστα*); Art is that of Universals (*τῶν καθόλου*).'

The commencement of Positive Science—the awakening to an appreciation of the nature and processes of Science—lies in that passage. In the Socratic conception of Induction we saw little more than Analogical Reasoning; but in this Aristotelian conception we see the Collection of Instances, and the generalization from those Instances which Science claims as part of its Method. Nor was this a random guess of the old Stagirite's: it was the logical deduction from his premisses respecting knowledge. Hear him again: 'Experience furnishes the principles of every science. Thus Astronomy is grounded on observation; for, if we were *properly to observe* the celestial phenomena, we might *demonstrate the laws* which regulate them. The same applies to other sciences. *If we omit nothing that observation can afford us respecting phenomena,* we could easily furnish the demonstration of all that admits of being demonstrated, and illustrate that which is not susceptible of demonstration.'§ And, in another place, when abandoned in his investi-

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* *Ibid.;* comp. also *Hist. Animal.* i. 6.

† *Topic.* i. 10; comp. what Coleridge says on Method as a path of Transit, *Discourse on Method* affixed to *Encyclop. Metropolitana.*

‡ *Γίνεται δὲ τέχνη ὅταν ἐκ πολλῶν τῆς ἐμπειρίας ἐννοημάτων καθόλου μία γένηται περὶ τῶν ὁμοίων ὑπόληψις, Met.* i. 1. § *Analyt. Prior.* i. 30.

gation by phenomena, he will not hazard an assertion. 'We must wait,' he says, 'for further phenomena, since phenomena are more to be trusted than the conclusion of reason.'

Looked at in a general way, the Aristotelian Method seems to be the Method of positive Science; but on closer meditation we shall detect their germinal difference to be the omission in Aristotle of the principle, so much insisted on in the Introduction to this History, namely, the rigorous Verification of each inductive step. The value of the truth expressed by a Syllogism does not consist solely in its accurate distribution, but also in the accuracy of its major premiss: we may form unexceptionable Syllogisms which shall be absurdly erroneous, as when when we say, All black birds are crows; This bird is black: *ergo*, This bird is a crow. In the physical and metaphysical speculations of the ancients, we are constantly meeting with syllogisms as perfect as this,—and as absurd; because the ancients generally threw their ingenuity into logical deduction, and scarcely ever into preliminary verification. When Aristotle therefore lays down as a canon the necessity of ascertaining generals from an examination of particulars, his canon, admirable indeed, needs to be accompanied by a distinct recognition of the equal necessity of verification. Contrasted with the Platonic Method, Aristotle's is seen to great advantage. Plato, believing that the stimulus awakened by a single idea would enable a man to arrive at the knowledge of all ideas, in consequence of the necessary connection supposed to exist between them, could very well dispense with Induction. But Aristotle maintained that the completeness of knowledge is only obtainable through completeness of experience; every single idea is awakened in us by a separate sensation, and only on a comparison of like and unlike in phenomena are differences perceived. He complains of Plato, very justly, for neglecting details in haste to judge of universals.

Aristotle had therefore a novel and profound conception of scientific Method; but because he did not—and indeed in that age *could* not—confine himself to Experience and the generalizations of Experience, he could not effectually carry out his own scheme. His conception was just; but the application of such a Method could have led him only a short way, because there was not sufficient Experience then accumulated, from which to generalize with any effect. Hence his speculations are not always carried on upon the Method which he himself laid down. Impatient at the insufficiency of facts, he jumps to a conclusion. Eager, as all men are, to solve the problems

which present themselves, he solved them *à priori*. He applied his Syllogism before he had verified the exactitude of his premisses.

The distinction between Aristotle and Plato is, that while both admitted that science could only be formed from Universals, *τὰ καθόλου*, Aristotle contended that such Universals had purely a subjective existence, *i. e.* that they were nothing more than the *inductions* derived from particular facts. He, therefore, made Experience the basis of all Science, and Reason the Architect. Plato made Reason the basis. The tendency of the one was to direct man to the observation and interrogation of Nature; that of the other was to direct man to the contemplation of Ideas.

The distinction between Aristotle and Bacon is, that while they both insist upon the observation and generalization of facts, as alone capable of furnishing correct ideas, Aristotle believed that he could observe those primary facts of Existence and Cause, which Bacon wisely declared beyond the human ken. While both insisted on the necessity of experience, while both saw that the science of the 'general' must be framed from the inductions of the particular, they differed profoundly as to the nature of that 'general.' Bacon endeavoured in particular facts to trace the general *laws*; Aristotle endeavoured in particular facts to trace the general *ideas*.

To understand this, we must cast a glance at Aristotle's Logic.

§ III. Aristotle's Logic.

It is often remarked, that Aristotle's use of the word Dialectics differs from Plato's use of it. Indeed, with Plato, dialectics was the science of Being; with Aristotle, it was no more than the instrument of Thought. But it is highly necessary that we should clearly understand the position occupied by Logic in the Aristotelian philosophy; the more so as after-ages prized the *Logic* above all his other works.

Logic is the science of Affirmation; Affirmation is the active operation of the Mind on that which sensation has presented to it; in other words, Affirmation is Thought. Affirmations may be true or false: there can be no falsehood in Sensation. If you have a sensation of an object, it must be a true sensation; but you may affirm something false of it. Every single thought is true; but, when you connect two thoughts together, that is, when you affirm something of another thing, you may affirm that which is false. Everything therefore that you think about may be reduced to a

Proposition; in fact, thoughts are a series of Propositions. To understand the whole nature of Propositions—to understand the whole Art of Thinking—is the province of Logic.

By a very natural confusion, Aristotle, thus convinced of the importance of language, was led to maintain that truth or falsehood did not depend upon things, but upon words, or rather upon combinations of words—upon Propositions. Logic therefore to him, as to Plato, though in a different way, became the real Organon of Science. But, as John Mill remarks, 'the distinction between real and nominal definitions, between definitions of words and what are called definitions of things, though conformable to the ideas of most Aristotelian logicians, cannot, as it appears to us, be maintained. We apprehend that no definition is ever intended to explain and unfold the nature of the thing. It is some confirmation of our opinion that none of those writers who have thought that there were definitions of things have ever succeeded in discovering any criterion by which the definition of a thing can be distinguished from any other proposition relating to that thing. The definition they say unfolds the nature of the thing: but no definition can unfold its whole nature; and every proposition in which any quality whatever is predicated of the thing unfolds some part of its nature. The true state of the case we take to be this: All definitions are of names and of names only; but, in some definitions, it is clearly apparent that nothing is intended except to explain the meaning of the word; while, in others, besides explaining the meaning of the word, it is intended to be implied that there exists a thing corresponding to the word. Whether this be or be not implied in any given case, cannot be collected from the mere form of expression. "A centaur is an animal with the upper parts of a man and the lower parts of a horse," and "a triangle is a rectilineal figure with three sides," are, in form, expressions precisely similar; although, in the former, it is not implied that any *thing* conformable to the term really exists, while in the latter it is; as may be seen by substituting, in both definitions, the word means for *is*. In the first expression, "a centaur *means* an animal," etc., the sense would remain unchanged: in the second, "a triangle means," etc., the meaning would be altered, since it would be obviously impossible to deduce any of the truths of geometry from a proposition expressive only of the manner in which we intend to employ a particular sign.

'There are, therefore, expressions commonly passing for defini-

tions which include in themselves more than the mere explanation of the meaning of a term. But it is not correct to call an expression of this sort a peculiar kind of definition. Its difference from the other kind consists in this, that it is not a definition, but a definition and something more. The definition given above of a triangle, obviously comprises not one, but two propositions, perfectly distinguishable. The one is, "There may exist a figure bounded by three straight lines;" the other, "and this figure may be termed a triangle." The former of these propositions is not a definition at all; the latter is a mere nominal definition or explanation of the use and application of a term. The first is susceptible of truth or falsehood, and may therefore be made the foundation of a train of reasoning. The latter can neither be true nor false; the only character it is susceptible of, is that of conformity or disconformity to the ordinary usage of language.

'There is a real distinction, then, between definitions of names and what are erroneously called definitions of things; but it is that the latter, along with the meaning of a name, covertly asserts a matter of fact. This covert assertion is not a definition, but a postulate. The definition is a mere identical proposition, which gives information only about the use of language, and from which no conclusions respecting matters of fact can possibly be drawn. The accompanying postulate, on the other hand, affirms a fact which may lead to consequences of every degree of importance. It affirms the real existence of things possessing the combination of attributes set forth in the definition; and this, if true, may be foundation sufficient to build a whole fabric of scientific truth.'*

This profound and luminous distinction was not seen by Aristotle, and his whole system was vitiated in consequence of the oversight. He thought that Logic was not only the Instrument of Thought, but, as such, the Instrument of investigating Causes. In his Logic the first place was occupied by the celebrated *Categories*. They are ten in number, and are as follows:—

Οὐσία	Substance.
Πόσον	Quantity.
Ποῖον	Quality.
Πρὸς τί	Relation.
Ποιεῖν	Action.
Πάσχειν	Passion.
Ποῦ	The where.

* *System of Logic*, i. 195–7.

Πότε	The when.
Κεῖσθαι	Position in space.
Ἔχειν	Possession.

These Categories, or, as the Latin writers say, Predicaments, were intended to be an enumeration of those classes or *genera*, under some of which everything was to be reduced. They were held to be the most universal expressions for the various relations of things; they could not further be analyzed, but remained the fundamental definitions of things. It is, however, as has been remarked,* a mere catalogue of the distinctions rudely marked out by the language of familiar life, with little or no attempt to penetrate, by philosophic analysis, to the *rationale* even of those common distinctions. Such an analysis, however superficially conducted, would have shown the enumeration to be both redundant and defective. Some objects are omitted, and others repeated several times under different heads. It is like a division of animals into men, quadrupeds, horses, asses, and ponies.

The remark is just, and would have been admitted as just by Aristotle himself, since he does not pretend the classification is complete, but confesses that the same object may, under different categories, be at once a quality and a relation. But Aristotle does not usually ascribe much importance to this enumeration of the most general notions; so that we may regard it as nothing more than an attempt to exhibit in a clear light the signification of words taken absolutely, in order to show how truth and falsehood consist in the right or wrong combination of these elements.†

However imperfect this attempt at classification may be, it was held to be a satisfactory attempt for many centuries; nor was any one bold enough to venture on another until Kant, who, as we shall see, had quite a different object. We have not here to criticize it, but to exhibit its historical position. The idea of examining the *forms* of thought could scarcely have originated earlier. Previous speculators had occupied themselves with inquiries into the origin and nature of knowledge: Aristotle saw that it was time to inquire into the necessary forms of thought. To do this, to analyze the various processes of the mind, and to exhibit the 'art of thinking' in all its details, is the object of his Logic.

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* Mill's *System of Logic*, i. 60.

† Ritter, iii. 66, where also will be found the authorities for the previous sentence.

Some had declared sense-knowledge to be deceitful; others had declared that sense-knowledge was perfectly faithful, as far as it went, but that it was incapable of penetrating beneath phenomena. Scepticism was assuming a menacing attitude. Aristotle, in his way, endeavoured to meet it, and he met it thus: It is true that the knowledge derived from our senses is not always correct; true also that our senses are to be trusted, as far as they go. A sensation, as a sensation, is true; but any affirmation you may make about that sensation may be either true or false, according to the affirmation. If an oar dipped in the water appears to you to be broken, the sensation you have is accurate enough; you *have* that sensation. But if, on the strength of that sensation, you affirm that the oar is broken, your affirmation is false. Error lies not in false sensation, but in false affirmation.

Like Plato, he held it to be indispensable to understand words if we are to understand thoughts; a position which, as we saw in the teaching of Socrates, was both novel and at the time important, because it called attention to the extreme laxity of language under which men disguised the laxity of their reasoning. A word, he said, is in itself indifferent; it is neither true nor false: truth or falsehood must result from a combination of words into a proposition. No thought can be erroneous; error is only possible to propositions.

Hence the necessity of Logic, which is the science of affirmations; it is in the Enunciate Proposition, *ἀποφαντικὸς λόγος*, that we must seek truth or falsehood. This proposition is subdivided into Affirmative and Negative Propositions, which are mutually opposed, and give rise to Contradiction so soon as they are asserted in the same sense of one and the same thing: *e. g.* 'It is impossible for the same thing to be and not to be.'

The principle of Contradiction he declares to be the deepest of all; for on it all Demonstration is founded. Because, however, he confounded truth of Language with truth of Thought, and supposed that Thought was always the correlate of Fact, he fell into the mistake of maintaining truth of Language, or Propositions, to be identical with truth of Being. He did not recognize the fact that we can frame Propositions which shall be based on the principle of Contradiction, and which shall nevertheless be false.

Having erected Propositions, or the affirmative and negative combinations of Language, into such an exalted position, it became necessary to attend more closely to names, and thus we get the

Predicables, a fivefold division of general Names, not grounded, as usual, upon a difference in their meaning, that is, in the attribute which they *con*note, but upon a difference in the kind of class which they *de*note. We may predicate of a thing five different varieties of class-name:—

Γένος	a Genus.
Εἶδος	a Species.
Διαφορά	a Difference.
Ἴδιον	a Property.
Συμβεβηκός	an Accident.

'It is to be remarked of these distinctions that they express not what the predicate is in its own meaning, but what relation it bears to the subject on which it happens on the particular occasion to be predicated. There are not some names which are exclusively general and others which are exclusively species or differentiæ; but the same name is referred to one or another Predicable, according to the subject of which it is predicated on the particular occasion. *Animal,* for instance, is a genus with respect to Man or John; a species with respect to substance or Being. The words genus, species, etc. are therefore relative terms; they are names applied to certain predicates, to express the relation between them and some given subject: a relation grounded, not upon what the predicate *con*notes, but upon the class which it *de*notes, and upon the place which in some given classification that class occupies relatively to the particular subject.'*

Induction and Syllogism are the two great instruments of his Logic. All knowledge must rest upon some antecedent conviction; and both in Induction and Syllogism we see how this takes place. Induction sets out, from particulars already known, to arrive at a conclusion; Syllogism sets out, from some general principle, to arrive at particulars.† There is this remarkable distinction, however, established by him between the two, namely, that the general principle from which the syllogism proceeds is *better known in itself* and in its own nature, while the particulars from which Induction proceeds are better known to us.‡ How came he by this surprising distinction? Thus: the particulars of Induction are derived from Sense, and are more liable on that account to error; whereas the

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* Mill, *System of Logic,* i. 162.

† *Analyt. Post.* i. 1.

‡ *Φύσει μὲν οὖν πρότερος καὶ γνωριμώτερος ὁ διὰ τοῦ μέσου συλλογισμὸς, ἡμῖν δ' ἐναργέστερος ὁ διὰ τῆς ἐπαγωγῆς.—Analyt. Prior.* ii. 24.

general principle of the Syllogism is known in itself, is further removed from the fallacies of sense, and is *κατὰ τὸν λόγον γνωριμώτερον*. Do we not always doubt whether we have rightly understood anything until we have demonstrated that it follows by necessity from some general principle? And does not this lead to the conviction that the Syllogism is the proper form of all science? Moreover, as the Syllogism proceeds from the general, the general must be better known than the particular, since the particular is proved by it.

Aristotle here lands us on a jagged reef of paradox: that which is better *known to us* is of less value than that which is *known in itself*. Sensations are less trustworthy than ideas. The particulars are sensibles, but in and for themselves they are nothing; they exist only in relation to us. Nevertheless we are forced to make them our point of departure. We begin with sensuous knowledge to reach ideal knowledge. In this manner we proceed from the world of experience to that higher world of cognition.

The various investigations into the nature of Propositions which Aristotle prosecuted, were necessary to form the basis of his theory of reasoning, *i. e.* the Syllogism. He defined the Syllogism to be an enunciation in which certain Propositions being laid down, a necessary conclusion is drawn, distinct from the Propositions and without employing any idea not contained in the Propositions. Thus:—

All bad men are miserable;
Every tyrant is a bad man:
ergo,
All tyrants are miserable.

His examination of the sixteen forms of the Syllogism exhibits great ingenuity, and, as a dialectical exercise, was doubtless sufficient; but it must not detain us here. The theory of the Syllogism is succeeded by the theory of Demonstration. If all knowledge owes its existence to anterior knowledge, what is this anterior knowledge? It is the *major* proposition of a Syllogism. The conclusion is but the application of the general to the particular. Thus, if we know that Tyrants are miserable, we know it because we know that All bad men are miserable; and the middle term tells us that Tyrants are bad men. To know, is to be aware of the cause; to demonstrate, is to give the Syllogism which expresses the knowledge we have. It is therefore necessary that every scientific Syllogism should repose upon principles that are true, primitive, more evident

in themselves than the conclusion, and *anterior* to the conclusion. These undemonstrable principles are Axioms, Hypotheses, etc., according as they are self-evident, or as they presuppose some affirmation or negation; they are Definitions when they limit themselves to an explanation of the essence of the thing defined, without affirming anything respecting its existence.

The proper subjects of demonstration are those universal attributes of particular things which make them what they are, and which may be predicated of them. It is one thing to know *that* a thing is so; another thing to know *why* it is so: hence the two orders of demonstrations, the τοῦ ὅτι, 'the demonstration of the cause from a consideration of the effect,' and the τοῦ διότι, 'the demonstration of the effect from the presence of the cause.'

We close this exposition of the leading points of Aristotle's Logic with his own somewhat touching words, as he concludes his work: 'We have had no works of predecessors to assist us in this attempt to construct a science of Reasoning; our own labours have done it all. If, therefore, the work appears to you not too inferior to the works on other sciences which have been formed with the assistance of successive labourers in the same department, you will show some indulgence for the imperfections of our work, and some gratitude for the discoveries it contains.'

§ IV. Aristotle's Metaphysics.

The problem which the early thinkers had set themselves to solve was that of the First Cause. Aristotle maintained that there were Four Causes, not one, and each of these must be taken into consideration. The four Causes were as follows:—I. The Material Cause, the Essence, τὸ τί ἦν εἶναι,—the Invariable Existence, which philosophers so variously sought. Perhaps '*Essence*' is the best translation of the phrase. II. The Substantial Cause, ὑποκείμενον, the '*Substance*' of the Schoolmen. III. The Efficient Cause, ἀρχὴ τῆς κινήσεως, 'the Principle of Motion.' IV. The Final Cause, τὸ οὗ ἕνεκα καὶ τἀγαθόν, 'the Purpose and End.' These Causes were all recognized separately by the early speculators, but no one had recognized them as connected, and as all necessary.

Aristotle is right in his criticism on his predecessors; but his own theory is extremely vicious. It makes speculation subordinate to logical distinctions; it makes the Categories the great instrument of investigation; and it creates that spirit of useless

and quibbling distinction which was the characteristic vice of the schoolmen, who were almost all fervent Aristotelians. In one word, the nearer Aristotle approached to systematic precision, the wider he wandered from sound principles of inquiry. And this because of his fundamental error in supposing that Logic was an Organon, *i. e.* that *subjective* distinctions must accord with *objective* distinctions. In consequence of which, instead of interrogating Nature he interrogated his own mind.

This may seem at variance with his notion of the necessity of sense-experience, and at variance with his Method; but, as we before observed, the rigorous application of his Method was barely possible; and, however excellent as a precept, it was so vague as to be almost inevitably vitiated in practice. The process of vitiation was this: Experience was necessary, as affording the materials for Reason to work with. Any reasoning not founded on a knowledge of phenomena must be false; but here was Aristotle's mistake: it by no means follows, that all reasoning founded on a knowledge of phenomena will be true. He thought that Experience could not deceive. But, to make his Method perfect, he should have laid down the rules for testing that Experience—for 'interrogating' Nature—for discriminating what was pertinent to the question in hand—for establishing a proper '*experimentum crucis*.' Thus 'facts,' as they are called, are notoriously valuable in proportion only to the value of the verification to which they have been submitted. People talk of 'facts' as if facts were to produce irresistible convictions; whereas facts are susceptible of very various explanations, and, in the history of science, we find the *facts* constant, but the *theories* changing: that is to say, Nature has preserved one uniform course, her ordinary operations are open to all men's inspection, and men have endeavoured to explain these operations in an endless variety of ways. Now, from a want of a proper knowledge of the conditions of scientific inquiry, Aristotle's Method became fruitless. The facts collected were vitiated by a false theory: his sense-experience was wrongly interpreted.

It is time, however, to give his solution of the great metaphysical problem of Existence. Matter, he said, exists in a threefold form. It is,—I. Substance, perceptible by the senses, which is finite and perishable. This Substance is either the abstract substance, or the substance connected with form, εἶδος. II. The higher Substance, which, though perceived by the sense, is imperishable; such as are the heavenly bodies. Here the active principle (ἐνέργεια, *actus*)

steps in, which, in so far as it contains that which is to be produced, is understanding (*νοῦς*). That which it contains is the *purpose* (*τὸ οὗ ἕνεκα*), which purpose is realized in the act. Here we have the two extremes of potentiality and agency, matter and thought. The celebrated *entelechie* is the relation between these two extremes, it is the point of transition between *δύναμις* and *ἐνέργεια*, and is accordingly the Cause of Motion, or *Efficient* Cause, and represents the Soul. III. The third form of Substance is that in which the three forms of power, efficient cause, and effect are united: the Absolute Substance: eternal, unmoved: God himself. God, as the Absolute Unmoved Eternal Substance, is Thought. The Universe is a thought in the Mind of God; it is 'God passing into activity, but not exhausted in the Act.' Existence, then, is Thought: it is the activity of the Divine Reason. In Man the thought of the Divine Reason completes itself, so as to become self-conscious. By it Man recognizes in the objective world his own nature again; for thought is the thinking of thought—*ἔστιν ἡ νόησις, νοήσεως νόησις.*

If we were occupied in this History with the particular opinions of Philosophers, rather than with their Methods and historical position in the development of speculation, we should dwell at some length on Aristotle's distinction between the *primary* and *secondary* qualities of bodies, which, according to Sir William Hamilton, he was the first to establish,* as also on the doctrine of Substantial Forms, which Hamilton says he did *not* teach (it was the Arabian commentators who misinterpreted Aristotle on this point); nor should we omit the claim to the discovery of the doctrine of Association of Ideas, which Hamilton has set up for him, with a vast array of Aristotelian erudition, proving indeed that Aristotle did recognize the facts of Association, but by no means proving that he recognized Association as the grand law of intellectual action. Our limits forbid such discursive wanderings from the purpose of this work, and we are forced to leave untouched the very points which in our opinion constitute the pre-eminence of Aristotle. In a history of Science greater justice could be done to his encyclopædic knowledge and marvellous power of systematization.† Here we have but to consider him as the philosopher who, resuming in himself all the results of ancient speculation, so elaborated them into a

* Hamilton's *Reid*, p. 826.

† Should I ever be enabled to complete a long projected plan, of writing, as a companion to the present work, a *Biographical History of Science*, I will endeavour to present Aristotle in this light.

co-ordinate system, that for twenty centuries he held the world a slave.

Plato was a great speculative genius, and a writer unapproached in the art of imaginary conversations having a polemical purpose; and in most *literary* minds he will ever remain a greater figure than his pupil, Aristotle. But while I concede Plato's immeasurable superiority as a writer, I conceive his inferiority as a thinker to be no less marked. Aristotle seems to me to have been the greatest intellect of antiquity, an intellect at once comprehensive and subtle, patient, receptive, and original. He wrote on Politics, and the treatise, even in the imperfect state in which it has reached us, is still in many respects one of the best works on the subject. He wrote on Poetry, and the few detached passages which survive are full of valuable details. He wrote on Natural History, and his observations are still valuable, his reflections still suggestive. He wrote on Logic, and for many centuries no one could suggest any improvement. 'Aristotle,' says Hegel, 'penetrated into the whole universe of things, and subjected to the comprehension its scattered wealth; and the greatest number of the philosophical sciences owe to him their separation and commencement. While in this manner science separates itself into a series of definitions, the Aristotelian philosophy at the same time contains the most profound speculative ideas. He is more comprehensive and speculative than any one else.' While, therefore, the majority will prefer Plato, who, in spite of his difficulties, is much easier to read than Aristotle, yet all must venerate the latter as a grand intellectual phenomenon, to which scarcely any parallel can be suggested.

His vast learning, his singular acuteness, the wide range of his investigations, and the astonishing number and the excellence of his works, will always make him a formidable rival to his more fascinating master. 'A student passing from the works of Plato,' it has been well said, 'to those of Aristotle, is struck first of all with the entire absence of that dramatic form and that dramatic feeling with which he has been familiar. The living human beings with whom he has conversed have passed away. Protagoras, and Prodicus, and Hippias are no longer lounging upon their couches in the midst of groups of admiring pupils; we have no walks along the walls of the city; no readings beside the Ilissus; no lively symposia, giving occasion to high discourses about love; no Critias recalling the stories he had heard in the days of his youth, before he became a tyrant of ancient and glorious republics; above all, no Socrates forming a

centre to these various groups, while yet he stands out clear and distinct in his individual character, showing that the most subtle of dialecticians may be the most thoroughly humorous and humane of men. Some little sorrow for the loss of those clear and beautiful pictures will perhaps be felt by every one; but by far the greater portion of readers will believe, that they have an ample compensation, in the precision and philosophical dignity of the treatise, for the richness and variety of the dialogue. To hear solemn disquisitions solemnly treated; to hear opinions calmly discussed without the interruptions of personalities; above all, to have a profound and considerate judge, able and not unwilling to pronounce a positive decision upon the evidence before him; this they think a great advantage, and this and far more than this they expect, not wrongly, to find in Aristotle.'*

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* Maurice, *Moral and Metaphysical Philosophy.*

CHAPTER II.

SUMMARY OF THE SOCRATIC MOVEMENT.

FOR the sake of historical clearness we may here place a few words respecting the position of the Socratic Movement (as we may call the period from the Sophists down to Aristotle) in the history of Speculation.

What Socrates himself effected we have already seen. He appeared during the reign of utter scepticism. The various tentatives of the early thinkers had all ended in a scepticism, which was turned to dexterous use by the Sophists. Socrates banished this scepticism by the invention of a new Method. He withdrew men from the metaphysical speculations about Nature, which had led them into the inextricable confusion of doubt. He bade them look inward. He created Moral Philosophy. The Cyrenaics and the Cynics attempted to carry out this tendency; but, as they did so in a one-sided manner, their endeavour was only partially successful.

Plato, the youngest and most remarkable of the disciples of Socrates, accepted the Method, but applied it more universally. Nevertheless Ethics formed the most important of his speculations. Physics were only subordinate and illustrative of Ethics. The Truth —the God-like existence—which he for ever besought men to contemplate, that they might share it, had always an Ethical object: it was sought by man for his own perfection. How to live in a manner resembling the Gods was the fundamental problem which he set himself to solve. But there was a germ of scientific speculation in his philosophy, and this germ was developed by his pupil, Aristotle.

The difference between Socrates and Aristotle is immense: Plato, however, fills up the interval. In Plato we see the transition-point of development, both in Method and in Doctrine. Metaphysical speculations are intimately connected with those of Ethics. In Aristotle, Ethics only form one branch of philosophy: Metaphysics and Physics usurp the larger share of his attention.

One result of Aristotle's labours was precisely this: he brought Philosophy round again to that condition from which Socrates had wrested it; he opened the world again to speculation.

Was then the advent of Socrates nullified? No. The Socratic Epoch conferred the double benefit on humanity of having first brought to light the importance of Ethical Philosophy, and of having substituted a new and incomparably better Method for that pursued by the early speculators. That Method sufficed for several centuries.

In Aristotle's systematization of the Socratic Method, and, above all, in his bringing Physics and Metaphysics again into the region of Inquiry, he paved the way for a new epoch,—the epoch of Scepticism; not the unmethodical Scepticism of helpless baffled guessers, like that which preceded Socrates, but the methodical and dogmatic exposure of the vanity of philosophy.

EIGHTH EPOCH.

SECOND CRISIS OF GREEK PHILOSOPHY: THE SCEPTICS, EPICUREANS, STOICS, AND THE NEW ACADEMY.

CHAPTER I.

THE SCEPTICS.

§ I. Pyrrho.

IN the curious train which accompanied the expedition of Alexander into India, there was a serious, reflective man, who followed him with purely philosophical interest: that man was Pyrrho, the founder of the Sceptical philosophy. Conversing with the Gymnosophists of India, he must have been struck with their devout faith in doctrines so unusual to him; and this spectacle of a race of wise and studious men believing a strange creed, and acting upon their belief, may have led him to reflect on the nature of belief. He had already, by the philosophy of Democritus, been led to question the origin of knowledge; he had learned to doubt; and now this doubt became irresistible.

On his return to Elis he became remarked for the practical philosophy which he inculcated, and the simplicity of his life. The profound and absolute scepticism with which he regarded all speculative doctrines, had the same effect upon him as upon Socrates: it made him insist wholly on moral doctrines. He was resigned and tranquil, accepting life as he found it, and guiding himself by the general precepts of common-sense. Socrates, on the contrary, was uneasy, restless, perpetually questioning himself and others, despising metaphysical speculations, but eager for truth. Pyrrho, dissatisfied with all the attempts of his predecessors to solve the great problems they had set to themselves, declared the problems insoluble. Socrates was also dissatisfied: he too declared that he knew nothing; but his doubt was an active, eager, questioning doubt, used as a stimulus to investigation, not as a final result of all investigation. The doubt of Pyrrho was a reprobation of all philo-

sophy; the doubt of Socrates was the opening through which a new philosophy was to be established. Their lives accorded with their doctrines. Pyrrho, the grand Priest of Elis, lived and died in happiness, peace, and universal esteem.* Socrates lived in perpetual warfare, was always misunderstood, was ridiculed as a sophist, and perished as a blasphemer.

The precise doctrines of Pyrrho it is now hopeless to attempt to recover. Even in antiquity they were so mixed up with those of his followers, that it was found impossible to separate them. We are forced, therefore, to speak of the sceptical doctrines as they are collected and systematized by that acute and admirable writer, Sextus Empiricus.

The stronghold of Scepticism is impregnable. It is this: There is no *Criterium* of Truth. After Plato had developed his Ideal Theory, Aristotle crushed it by proving it to be purely *subjective*. But then the theory of Demonstration, which Aristotle placed in its stead, was not that equally *subjective?* What was this boasted Logic, but the systematic arrangement of Ideas obtained originally through Sense? According to Aristotle, knowledge could only be a knowledge of phenomena; although he too wished to make out a science of Causes. And what are Phenomena? Phenomena are the Appearances of things. But where exists the *Criterium* of the truth of these Appearances? How are we to ascertain the exactitude of the accordance of these Appearances with the Things of which they are Appearances? We know full well that Things appear differently to us at different times; appear differently to different individuals; appear differently to different animals. Are any of these Appearances true? If so, *which* are? and *how* do you know which are true?

Moreover reflect on this: We have five senses, each of which reveals to us a different quality in the object. Thus an Apple is presented to us: we see it, smell it, feel it, taste it, hear it bitten; and the sight, smell, feeling, taste, and sound, are five different Appearances—five different Aspects under which we perceive the Thing. If we had three Senses more, the Thing would have three qualities more; it would present three more Appearances: if we had three Senses less, the Thing would have but three qualities less.

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* All the stories about him which pretend to illustrate the effects of his scepticism in real life are too trivial for refutation, being obviously the invention of those who thought Pyrrho ought to have been consequent in absurdity.

Are these qualities *wholly and entirely dependent upon our Senses,* or do they really *appertain to the Thing?* And do they *all* appertain to it, or only some of them? The differences of the impressions made on different people seem to prove that the qualities of things are dependent on the Senses. These differences at any rate show that things do not present one uniform series of Appearances.

All we can say with truth is, that Things appear to us in such and such a manner. That we have Sensations is true; but we cannot say that our Sensations are *true images of the Things.* That the Apple we have is brilliant, round, odorous and sweet, may be very true, if we mean that it appears such to our senses; but, to keener or duller vision, scent, tact, and taste, it may be dull, rugged, offensive, and insipid.

Amidst this confusion of sensuous impressions, Philosophers pretend to distinguish the true from the false; they assert that Reason is the Criterium of Truth: Reason distinguishes. Plato and Aristotle are herein agreed. Very well, reply the Sceptics, Reason is your Criterium. But what proof have you that this Criterium itself distinguishes truly? You must not return to Sense: that has been already given up; you must rely upon Reason; and we ask you what proof have you that your Reason never errs? what proof have you that it is *ever* correct? A Criterium is wanted for your Criterium; and so on *ad infinitum.*

The Sceptics maintain, and justly, that because our knowledge is only the knowledge of Phenomena, and not at all of Noumena,—because we only know Things as they *appear* to us, not as they really *are,*—all attempt to penetrate the mystery of Existence must be vain; for the attempt can only be made on appearances. But, although *absolute* Truth is not attainable by man, although there cannot be a science of Being, there can be a science of Appearances. The Phenomena, they admit, are true as Phenomena. What we have to do is therefore to observe and classify Phenomena; to trace in them the resemblances of coexistence and succession, to trace the connections of cause and effect; and, having done this, we shall have founded a Science of Appearances adequate to our wants.

But the age in which the Sceptics lived was not ripe for such a conception: accordingly, having proved the impossibility of a science of Being, they supposed that they had established the impossibility of all Science, and had destroyed all grounds of certitude. It is worthy of remark that modern Sceptics have added nothing which is not implied in the principles of the Pyrrhonists. The arguments

by which Hume thought he destroyed all the grounds of certitude are differently stated from those of Pyrrho, but not differently founded; and they may be answered in the same way.

The Sceptics had only a negative doctrine; consequently, only a negative influence. They corrected the tendency of the mind towards accepting its conclusions as adequate *expressions of the facts;* they served to moderate the impetuosity of the speculative spirit; they showed that the pretended Philosophy of the day was not so firmly fixed as its professors supposed. It is curious, indeed, to have witnessed the gigantic efforts of a Socrates, a Plato, and an Aristotle, towards the reconstruction of Philosophy, which the Sophists had brought to ruins—a reconstruction, too, on different ground—and then to witness the hand of the iconoclast smiting down that image, to witness the pitiless logic of the Sceptic undermining that laboriously-constructed edifice, leaving nothing in its place but another heap of ruins, like that from which the edifice was built; for, not only did the Sceptics refute the notion that a knowledge of Appearances could ever become a knowledge of Existence, not only did they exhibit the fallacious nature of sensation, and the want of certitude in the affirmations of Reason, they also attacked and destroyed the main positions of that Method which was to supply the ground of certitude; they attacked Induction and Definitions.

Of Induction, Sextus, in one brief, pregnant chapter, writes thus:—'Induction is the conclusion of the Universal from individual things. But this Induction can only be correct in as far as all the individual things agree with the Universal. This universality must therefore be verified before the Induction can be made: a single case to the contrary would destroy the truth of the Induction.'*

We will illustrate this by an example. The whiteness of swans shall be the Induction. Swans are said to be white because all the individual swans we may have seen are white. Here the Universal (whiteness) seems induced from the particulars; and it is true in as far as all particular swans are white. But there are a few black swans; one of these particular black swans is sufficient to destroy the former Induction. If, therefore, says Sextus, you are not able to verify the agreement of the universal with every particular, *i. e.*

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* *Pyrrhon. Hypot.* vol. ii. c. xv. p. 94. The edition we use is the Paris folio of 1621, the first of the Greek text.

if you are not able to prove that there is no swan not black, you are unable to draw a certain and accurate Induction. That you cannot make this verification is obvious.

In the next chapter Sextus examines Definitions. He pronounces them perfectly useless. If we know the thing we define, we do not comprehend it because of the definition, but we impose on it the definition because we know it; and if we are ignorant of the thing we would define, it is impossible to define it.

Although the Sceptics destroyed the dogmatism of their predecessors, they did not substitute any dogmatism of their own in its place. The nature of their scepticism is happily characterized by Sextus in his comparison of them with Democritus and Protagoras. Democritus had insisted on the uncertainty of sense-knowledge; but he concluded therefrom that objects had no qualities at all resembling those known to us through sensation. The Sceptics contented themselves with pointing out the uncertainty, but did not pronounce decisively whether the qualities existed objectively or not.

Protagoras also insisted on the uncertainty, and declared man to be the measure of truth. He supposed that there was a constant relation between the transformations of matter and those of sensation; but these suppositions he affirmed dogmatically; to the Sceptic they are uncertain.

This general incertitude often betrayed the Sceptics into ludicrous dilemmas, of which many specimens have been preserved. Thus they said, 'We assert nothing—no, not even that we assert nothing.' But if the reader wishes to see this distinction between a thing *seeming* and a thing *being*, ridiculed with a truly comic gusto, he should turn to Molière's *Mariage Forcé*, act i. sc. 8. Such follies form no portion of our subject, and we leave them with some pleasure to direct our attention to more worthy efforts of human ingenuity.

CHAPTER II.

THE EPICUREANS.

§ I. Epicurus.

THE Epicureans are condemned in their names. We before noticed how the meaning attached to the name of Sophist inadvertently gives a bias to every judgment of the Sophist School, and renders it extremely difficult to conceive the members of that School otherwise than as shameless rogues. Equally difficult is it to shake off the influence of association with respect to the Epicureans; although historians are now pretty well agreed in believing Epicurus to have been a man of pure and virtuous life, and one whose doctrines were moderate and really inculcating abstemiousness.

Epicurus was born Ol. 109 (B. C. 342), at Samos, according to some; at Gargettus, in the vicinity of Athens, according to others. His parents were poor, his father a teacher of grammar. At a very early age, he tells us, his philosophical career began: so early as his thirteenth year. But we must not misunderstand this statement. He dates his career from those first questionings which occupy and perplex most young minds, especially those of any superior capacity. He doubtless refers to that period when, boy-like, he puzzled his teacher with a question beyond that teacher's power. Hearing the verse of Hesiod wherein all things are said to arise from Chaos, Epicurus asked, 'And whence came Chaos?'

'Whence came Chaos?' Is not this the sort of question to occupy the active mind of a boy? Is it not by such questions that we are all led into philosophy? To philosophy he was referred for an explanation. The writings of Democritus fell in his way, and were eagerly studied; the writings of others followed; and, his vocation being fixed, he sought instruction from many masters. But from all these masters he could gain no solid convictions. They gave him hints; they could not give him Truth; and working upon the materials they furnished, he produced a system of his own, by which we presume he justified his claim to being self-taught.

His early years were agitated and unsettled. He visited Athens

at eighteen, but remained there only one year. He then passed to Colophon, Mitylene, and Lampsacus. He returned to Athens in his six-and-thirtieth year, and there opened a school, over which he presided till his death, Ol. 127 (B. C. 272).

The place he chose for his school was the famous Garden, a spot pleasantly typical of his doctrine. The Platonists had their Academic Grove; the Aristotelians walked along the Lyceum; the Cynics growled in the Cynosarges; the Stoics occupied the Porch; and the Epicureans had their Garden.

Here, in the tranquil Garden, in the society of his friends, he passed a peaceful life of speculation and enjoyment. The friendship which existed amongst them is well known. In a time of general scarcity and famine they contributed to each other's support, showing that the Pythagorean notion of community of goods was unnecessary amongst friends, who could confide in each other. At the entrance of the Garden they placed this inscription: 'The hospitable keeper of this mansion, where you will find pleasure the highest good, will present you liberally with barley-cakes and water fresh from the spring. The gardens will not provoke your appetite by artificial dainties, but satisfy it with natural supplies. Will you not be well entertained?'

The Garden has often been called a sty; and the name of Epicurean has become the designation of a sensualist. But, in spite of his numerous assailants, the character of Epicurus has been rescued from contempt, both by ancient and by modern critics. Diogenes Laertius, who gives some of the accusations in detail, easily refutes them by an appeal to facts; and the modern writers have been at no loss to discover the motive of the ancient calumnies, which mostly proceeded from the Stoics. A doctrine like that of Epicurus would, at all times, lend itself to gross misrepresentation; but in an epoch like that in which it appeared, and contrasted with a doctrine so fiercely opposed to it as the doctrine of the Stoics, we cannot wonder if the bitterness of opposition translated itself into bitter calumny. It is one of the commonest results of speculative differences to make us attribute to our opponent's opinions the consequences which *we* deduce from them, as if they were indubitably the consequences he deduces for himself. Our opinions are conducive to sound morality: of *that* we are convinced; and being so convinced, it is natural for us to believe that contrary opinions must be immoral. Our opponent holds contrary, *ergo* immoral opinions; and we proclaim his immorality as an unquestionable fact. In this, however, there

is a slight forgetfulness, namely, that our opponent occupies exactly *similar* ground, and what we think of him, he thinks of us.

The Stoics had an ineffable contempt for the weakness and effeminacy of the Epicureans. The Epicureans had an ineffable contempt for the spasmodic rigidity and unnatural exaggeration of the Stoics. They libelled each other; but the libels against the Epicureans have met with more general credit than those against the Stoics, from the more imposing character of the latter, both in their actions and doctrines.

Epicurus is said to have been the most voluminous of all Greek Philosophers, except Chrysippus; and although none of these works are extant, yet so many fragments are preserved here and there, and there is such ample testimony as to his opinions, that there are few writers of whose doctrine we can speak with greater certainty; the more so as it does not in itself present any difficulties of comprehension.

Nothing can be more unlike Plato and Aristotle than Epicurus; and this difference may be characterized at the outset by their fundamental difference in the conception of Philosophy, which Epicurus regarded as the Art of Life, and not the Art of Truth. Philosophy, he said, was the power (ἐνέργεια) by which Reason conducted man to happiness. The investigations of Philosophy he despised: they were not only uncertain, but contributed nothing towards happiness; and of course Logic, the instrument of Philosophy, found no favour in his sight. His system was, therefore, only another form of Scepticism, consequent on his dissatisfaction with previous systems. Socrates had taught men to regard their own nature as the great object of investigation; but man does not interrogate his own nature out of simple curiosity, or for simple erudition: he studies his nature in order that he may improve it; he learns the extent of his capacities in order that he may properly direct them. The aim, therefore, of all such inquiries must be Happiness. And what constitutes Happiness? Upon this point systems differ: all profess to teach the road to Happiness, and all point out divergent roads. There can be little dispute as to what is Happiness, but infinite disputes as to the way of securing it.* In the Cyrenaic and Cynic Schools we saw this question leading

* At a meeting of Socialists in London, to discuss in a friendly way the means of reforming the world, M. Pierre Leroux rose and addressed his brethren thus: '*Nous voulons arriver au Paradis, n'est-ce pas? n'est-ce pas? Eh bien! il ne s'agit que d'y arriver! Voilà!*'

to very opposite results; and the battle we are now to see renewed on similar ground between the Epicureans and the Stoics.

Epicurus, like Aristippus, declared that Pleasure constituted Happiness; all animals instinctively pursue it, and as instinctively avoid Pain. Man should do deliberately that which animals do instinctively. Every Pleasure is in itself good; but, in comparison with another, it may become an evil. The Philosopher differs from the common man in this: That while they both seek Pleasure, the former knows how to forego certain enjoyments which will cause pain and vexation hereafter; whereas the common man seeks only the immediate enjoyment. The Philosopher's art enables him to foresee what will be the result of his acts; and, so foreseeing, he will not only avoid those enjoyments which occasion grief, but know how to endure those pains from which surpassing pleasure will result.

True happiness, then, is not the enjoyment of the moment, but the enjoyment of the whole life. We must not seek to intensify, but to equalize: not debauchery today and satiety tomorrow, but equable enjoyment all the year round. No life can be pleasant except a virtuous life; and the pleasures of the body, although not to be despised, are insignificant when compared with those of the soul. The former are but momentary; the latter embrace both the past and future. Hence the golden rule of Temperance. Epicurus not only insisted on the necessity of moderation for continued enjoyment, he also slighted, and somewhat scorned, all exquisite indulgences. He fed moderately and plainly. Without interdicting luxuries, he saw that Pleasure was purer and more enduring if luxuries were dispensed with. This is the ground upon which Cynics and Stoics built their own exaggerated systems. They also saw that simplicity was preferable to luxury; but they pushed their notion too far. Contentedness with a little, Epicurus regarded as a great good; and he said, wealth consisted not in having great possessions, but in having small wants. He did not limit man to the fewest possible enjoyments: on the contrary, he wished him in all ways to multiply them; but he wished him to be able to live upon little, both as a preventative against ill-fortune, and as an enhancement of rare enjoyments. The man who lives plainly has no fear of poverty, and is better able to enjoy exquisite pleasures.

Virtue rests upon Free Will and Reason, which are inseparable: since, without Free Will our Reason would be passive, and without Reason our Free Will would be blind. Everything, therefore, in human actions which is virtuous or vicious depends on man's *know-*

ing and *willing*. Philosophical education consists in accustoming the Mind to judge accurately, and the Will to choose manfully.

From this slight outline of his Ethical doctrine may be seen how readily it furnished arguments both to assailants and to defenders. We may also notice its vagueness and elasticity, which would enable many minds to adapt it to their virtues or to their vices. The luxurious would see in it only an exhortation to their own vices; the temperate would see in it a scientific exposition of temperance.

Epicureanism, in leading man to a correct appreciation of the moral end of his existence, in showing him how to be truly happy, has to combat with many obstructions which hide from him the real road of life. These obstructions are his illusions, his prejudices, his errors, his ignorance. This ignorance is of two kinds: first, ignorance of the laws of the external world, which creates absurd superstitions, and troubles the soul with false fears and false hopes; hence the necessity of some knowledge of Physics. The second kind of ignorance is that of the nature of man; hence the necessity of the Epicurean Logic called *Canonic*, which is a collection of rules respecting human reason and its application.

The Epicurean psychology and physics were derived from the Democritean. The atoms of which the universe is formed are supposed to be constantly throwing off some of their parts, *ἀπορῥοαί*: and these, in contact with the senses produce sensation, *αἴσθησις*. But Epicurus did not maintain that these *ἀπορῥοαί* were *images* of the atoms; he believed them to have a certain resemblance to their atoms, but was unable to point out where, and in how far this resemblance exists. Every sensation must be true as a sensation; and, as such, it can neither be proved nor contradicted; it is *ἄλογος*. The sensations of the insane and the dreaming are also true; and, although there is a difference between their sensations and those of sane and waking men, yet Epicurus confessed himself unable to determine in what the difference consists. Sensations however do not alone constitute knowledge; man has also the faculty of conception, *πρόληψις*, which arises from the repeated iteration of sensation: it is recollection of various sensations; or, as Aristotle would say, the general idea gathered from particular sensations. It is from these conceptions that the general ideas, *δόξαι*, are formed, and it is in these general ideas that error resides. A sensation may be considered either in relation to its object or in relation to him who experiences it; in the latter case it is agreeable or disagreeable, and renders the sentiments, *τὰ πάθη*, the basis of all morality.

With such a basis, we may readily anticipate the nature of the superstructure. If agreeable and disagreeable sensations are the origin of all moral phenomena, there can be no other moral rule than to seek the agreeable and to avoid the disagreeable; and whatever is pleasant becomes the great object of existence.

The Physics of Epicurus are so similar to the Physics of Democritus that we need not occupy our space with them.*

On reviewing the whole doctrine of Epicurus, we find in it that scepticism which the imperfect Philosophy of the day necessarily brought to many minds, in many different shapes; and the consequence of that scepticism was the effort to find a refuge in Morals, and the attempt to construct Ethics on a philosophic basis. The attempt failed because the basis was not broad enough; but the attempt itself is worthy of notice, as characteristic of the whole Socratic movement; for, although the Socratic Method was an attempt at reconstructing Philosophy, yet that reconstruction itself was only attempted with a view to morals. Socrates was the first to bring Philosophy down from the clouds; he was the first to make it the basis of Morality, and in one shape or other all his followers and all the schools that issued from them, kept this view present to their minds. The Epicureans are therefore to be regarded as men who ventured on a solution of the great problem, and failed because they only saw a part of the truth.

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* They are expounded by Lucretius, who claims a rebellious originality for Epicurus which history cannot indorse. I. 67, *sqq.*

CHAPTER III.

THE STOICS.

§ I. Zeno.

THE Stoics were a large sect, and of its members so many have been celebrated, that a separate work would be needed to chronicle them all. From Zeno, the founder, down to Brutus and Marcus Antoninus, the sect embraces many Greek and Roman worthies, and not a few solemn mountebanks. Some of these we would willingly introduce; but we are forced to confine ourselves to one type; and the one we select is Zeno.

He was born at Citium, a small city in the island of Cyprus, of Phœnician origin, but inhabited by Greeks. The date of his birth is uncertain. His father was a merchant, in which trade he himself engaged, until his father, after a voyage to Athens, brought home some works of Socratic philosophers; these Zeno studied with eagerness and rapture, and determined his vocation.

When about thirty, he undertook a voyage both of interest and pleasure, to Athens, the great mart both for trade and philosophy. Shipwrecked on the coast, he lost the whole of his valuable cargo of Phœnician purple; and, thus reduced to poverty, he willingly embraced the doctrine of the Cynics, whose ostentatious display of poverty had captivated many minds.

There is an anecdote of his having one day read Xenophon's *Memorabilia,* in a bookseller's shop, with such delight that he asked where such men were to be met with. At that moment Crates the Cynic passed by: the bookseller pointed him out to Zeno, and bade him follow Crates. He did so; and he became a disciple. But he could not long remain a disciple. The gross manners of the Cynics, so far removed from true simplicity, and their speculative incapacity, soon caused him to seek a master elsewhere. Stilpo, of Megara, became his next instructor; and from him he learned the art of disputation, which he subsequently practised with such success.

But the Megaric doctrine was too meagre for him. He was glad

to learn from Stilpo; but there were things which Stilpo could not teach. He turned, therefore, to the expositors of Plato: Xenocrates and Polemo. In the philosophy of Plato there is, as before remarked, a germ of Stoicism; but there is also much that contradicts Stoicism, and so, we presume, Zeno grew discontented with that also.

After twenty years of laborious study in these various schools, he opened one for himself, wherein to teach the result of all these inquiries. The spot chosen was the Stoa, or Porch, which had once been the resort of the Poets, and was decorated with the pictures of Polygnotus. From this Stoa the school derived its name.

As a man, Zeno appears deserving of the highest respect. Although sharing the doctrines of the Cynics, he did not share their grossness, their insolence, or their affectation. In person he was tall and slender; and although of a weakly constitution, he lived to a great age, being rigidly abstemious, feeding mainly upon figs, bread, and honey. His brow was furrowed with thought; and this gave a tinge of severity to his aspect, which accorded with the austerity of his doctrines. So honoured and respected was he by the Athenians, that they entrusted to him the keys of the citadel; and when he died they erected to his memory a statue of brass. His death is thus recorded:—In his ninety-eighth year, as he was stepping out of his school, he fell and broke his finger. He was so affected at the consciousness of his infirmity that, striking the earth, he exclaimed, 'Why am I thus importuned? Earth, I obey thy summons!' He went home and strangled himself.

In the history of humanity there are periods when society seems fast dissolving; when ancient creeds have lost their majesty, and new creeds want disciples: when the onlooker sees the fabric tottering, beneath which his fellow-men are crowded either in sullen despair or in blaspheming levity, and, seeing this, he feels that there is safety still possible, if men will but be bold; he raises a voice of warning, and a voice of exhortation; he bids them behold their peril and tremble, behold their salvation and resolve. He preaches to them a doctrine they have been unused to hear, or, hearing it, unused to heed; and by the mere force of his own intense conviction he gathers round him some believers who are saved. If the social anarchy be not too widely spread, he saves his country by directing its energies in a new channel; if the country's doom is sealed, he makes a gallant effort, though a vain one, and 'leaves a spotless name to after-times.'

Such a man was Zeno. Greece was fallen; but hope still remained. A wide-spread disease was fast eating out the vigour of its life: Scepticism, Indifference, Sensuality, Epicurean softness were only counteracted by the magnificent but vague works of Plato, or the vast but abstruse system of Aristotle. Greek civilization was fast falling to decay. A little time and Rome, the she-wolf's nursling, would usurp the place which Greece had once so proudly held—the place of vanguard of European civilization. Rome, the mighty, would take from the feeble hands of Greece the trust she was no longer worthy to hold. There was a presentiment of Rome in Zeno's breast. In him the manly energy and stern simplicity which were to conquer the world; in him the deep reverence for moral worth, which was the glory of Rome, before, intoxicated with success, she sought to ape the literary and philosophical glory of old Hellas. Zeno the Stoic had a Roman spirit; and this is the reason why so many noble Romans became his disciples: he had deciphered the wants of their spiritual nature.

Alarmed at the scepticism which seemed inevitably following speculations of a metaphysical kind, Zeno, like Epicurus, fixed his thoughts principally upon Morals. His philosophy boasted of being eminently practical, and connected with the daily practices of life. But, for this purpose, the philosopher must not regard pleasure so much as Virtue: nor does Virtue consist in a life of contemplation and speculation, but in a life of activity; for what is Virtue?—Virtue is manhood. And what are the attributes of Man? Are they not obviously the attributes of an *active* as well as of a *speculative* being? and can that be Virtue which excludes or neglects man's activity? Man, O Plato, and O Aristotle, was not made for speculation only; wisdom is not his only pursuit. Man, O Epicurus, was not made for enjoyment only; he was made also to *do* somewhat, and to *be* somewhat. Philosophy?—It is a great thing; but it is not all. Pleasure?—It is a slight thing; and, were it greater, could not embrace men's entire activity.

The aim, then, of man's existence is neither to be wise nor to enjoy, but to be virtuous—to realize his manhood. To this aim, Philosophy is a means, and Pleasure may also be one; but they are both subordinate. Before we can be taught to lead a virtuous life, we must be taught what Virtue is. Zeno thought, with Socrates, that Virtue was the knowledge of Good; and that Vice was nothing but error. If to *know* the good were tantamount to the pursuit and practice of it, then was the teacher's task easily de-

fined: he had to explain the nature of human knowledge, and to explain the relations of man to the universe.

Thus, as with Socrates, does Morality find itself inseparably connected with Philosophy; and more especially with psychology. A brief outline of this psychology becomes therefore necessary as an introduction to the Stoical Morality.

Zeno utterly rejected the Platonic theory of knowledge, and accepted, though with some modifications, the Aristotelian theory. 'Reminiscence' and 'Ideas' were to him mere words. Ideas he regarded as the universal notions formed by the mind from a comparison of particulars. Sense furnished all the materials of knowledge; Reason was the plastic instrument whereby these materials were fashioned. But those who maintain that Sense furnishes us the materials of knowledge are hampered with this difficulty: By what process does Sense perceive? What relation is there between Sense and the sensible Thing? What proof have we of those sensations being conformable with the Things. This difficulty is a serious one, and early occupied speculators. Indeed, this question may be pronounced the vital question of all philosophy; upon its solution depends to a great extent the solution of all other questions. Let us state it more clearly in an illustration.

At the distance of fifty yards you descry a tower: it is round. What do you mean by saying, It is round? You mean that the impression made upon your sense of sight is an impression similar to that made by some other objects, such as trees, which you, and all men, call round. Now, on the supposition that you never approached nearer that tower, you would always believe it to *be* round, because it *appeared* so. But, as you are enabled to approach it, and as you *then* find that the tower is square, and not round, you begin to examine into this difference. It appeared round at that distance; and yet you say it really *is* square. A little knowledge of optics seems to explain the difference; but does not. At fifty yards, you say, it appears round; but it really is square. At fifty yards, we reply, it appears round, and at one yard *it appears* square: it *is* neither: both round and square are conceptions of the mind, not attributes of things: they have a subjective, not an objective existence.

Thus far the ancient sceptics penetrated; but, seeing herein an utter destruction of all certainty in sense-knowledge, and compelled to admit that Sense was the only source of knowledge, they declared all knowledge a deceit. The perception of the real issue

whence to escape this dilemma—the recognition of the uncertainty of sense-knowledge, and the reconciliation of that theory with the natural wants of the speculative mind—reconciling scepticism with belief, and both with reason, was the work of after-times.

Those who believed that the senses gave true reports of the Things which affected them, were driven to invent some hypothesis explanatory of the relation subsisting between the object and the Subject, the Thing and the Sense. We have seen how *eidola*, airy Images affluent from Things, were invented to choke up the gap, and to establish a direct connection between the Subject and the Object. Zeno, acutely enough, saw that an Image detaching itself in an airy form from the Object, could only represent the superficies of that Object, even if it represented it correctly. In this way the hypothesis of *eidola* was shown to be no more than an hypothesis to explain Appearances; whereas the real question is not, How do we perceive Appearances? but how do we perceive Objects? If we only perceive their superficies, our knowledge is only a knowledge of phenomena, and we fall into the hands of the Sceptics.

Zeno saw the extent of the difficulty, and tried to obviate it. But his hypothesis, though more comprehensive, was as completely without foundation. He assumed that Sense *could* penetrate beneath Appearance, and perceive Substance itself.

As considerable confusion exists on this point, we shall confine ourselves to the testimony of Sextus Empiricus, the most satisfactory of all. In his book directed against the Logicians, he tells us, 'the Stoics held that there was one criterium of truth for man, and it was what they called the *Cataleptic Phantasm*' (*τὴν καταληπτικὴν φαντασίαν, i. e.* the Sensuous Apprehension). We must first understand what they meant by the Phantasm or Appearance. It was, they said, an *impression on the mind* (*τύπωσις ἐν ψυχῇ*). But from this point commence their differences; for Cleanthus understood, by this impression, an impression similar to that made by the signet-ring upon wax, *τοῦ κηροῦ τύπωσιν*. Chrysippus thought this absurd; for, said he, seeing that thought conceives many objects at the same time, the soul must upon that hypothesis receive many impressions of figures. He thought that Zeno meant by *impression* nothing more than a *modification* (*ἑτεροίωσις*): likening the soul to the air, which when many voices sound simultaneously, receives simultaneously the various alterations, but without confounding them. Thus the Soul unites several perceptions which correspond with their several objects.

This is extremely ingenious, and the indication of Sensation as a *modification* of the Soul, opens a shaft deep down into the dark region of psychology. But, if it lets in some of the light of day, it also brings into notice a new obstacle. This soul, which is modified, does it not also in its turn exercise an influence? If wine be poured into water, it modifies the water; but the water also modifies the wine. There can be no action without reaction. If a stone is presented to my sight, it modifies my soul; but does the stone remain unmodified?—No; it receives from me certain attributes, certain form, colour, taste, weight, etc., which my soul bestows on it, which it does not possess in itself.

Thus is doubt again spread over the whole question. The soul modifying the object *in sensation,* can it rely upon the truth of the sensation thus produced? Has not the wine become watery, no less than the water vinous? These consequences, however, Zeno did not foresee. He was intent upon proving that the soul really apprehended objects, not as *eidola,* not as the wax receives the impression of a seal, but in absolute truth. Let us continue to borrow from Sextus Empiricus.

The Phantasm, or Appearance, which causes that Modification of the Soul which we name Sensation, is also understood by the Stoics as we understand ideas; and in this general sense, they said that there were three kinds of Phantasms: those that were probable, those that were improbable, and those that were neither one nor the other. The first are those that cause a slight and equable motion in the soul: such as those which inform us that it is day. The second are those which contradict our reason: such as if one were to say during the day-time, 'Now the sun is not above the earth;' or, during the night-time, 'Now it is day.' The third are those, the truth of which it is impossible to verify: such as this, 'The number of the stars is even;' or, 'the number is odd.'

Phantasms, when probable, are true or false, or both true and false at the same time, or neither true nor false. They are true when they can be truly affirmed of anything; false if they are wrongly affirmed, such as when one believes an oar dipped in the water to be broken, because it appears so. When Orestes, in his madness, mistook Electra for a Fury, he had a Phantasm both true and false: true, inasmuch as he saw something, viz. Electra; false, inasmuch as Electra was not a Fury.

Of true Phantasms, some are cataleptic (apprehensive), and others non-cataleptic. The latter are such as arise from disease or

perturbation of the mind: as for instance the innumerable Phantasms produced in frenzy and hypochondria. The cataleptic Phantasm is that which is impressed by an object which exists, which is a copy of that object, and can be produced by no other object. Perception is elsewhere said to be a sort of light, which manifests itself at the same time that it lights up the object from which it is derived.

Zeno distinctly saw the weakness of the theories proposed by others; he failed however in establishing any better theory in their place. Sextus Empiricus may well call the Stoical doctrine vague and undecided. How are we to distinguish the true from the false in appearances? Above all, how are we to learn whether an impression exactly coincides with the object? This is the main problem, and Zeno pretends to solve it by a circular argument. Thus: given the problem, how are we to distinguish the true impressions from the false impressions? The solution offered is, by ascertaining which of the impressions coincide with the real objects: in other words, by distinguishing the true impressions from the false.

Let us continue the exposition:—Having a perception of an object is not knowledge: for knowledge, it is necessary that reason should assent. Perception comes from without; assent from within: it is the free exercise of man's reason. Science is composed of perceptions so solidly established that no argumentation can shake them. Perceptions not thus established only constitute Opinion.

This is making short work with difficulties, it must be confessed; but the Stoics were eager to oppose something against the Scepticism which characterized the age; and, in their eagerness to build, they did not sufficiently secure their foundations. Universal doubt they felt to be impossible. Man must occasionally assent, and that too in a constant and absolute manner. There are perceptions which carry with them irresistible conviction. There would be no possibility of action unless there were some certain truth. Where then is conviction to stop? That all our perceptions are not correct, every one is willing to admit. But which are exact, and which are inexact? What *criterium* have we? The criterium we possess is *Evidence*. 'Nothing can be clearer than evidence,' they said; 'and, being so clear, it needs no definition.' This was precisely what it *did* want; but the Stoics could not give it.

In truth, the Stoics, combating the Scepticism of their age, were reduced to the same strait as Reid, Beattie, and Hutcheson, combating the Scepticism of Hume: reduced to give up Philosophy,

and to find refuge in *Common-Sense*. The battle fought by the Stoics is very analogous to the battle fought by the Scotch philosophers, in the ground occupied, in the instruments employed, in the enemy attacked, and the object to be gained. They both fought for Morality, which they thought endangered.

We shall subsequently have to consider the Common-Sense theory: enough if we now call attention to the curious *ignoratio elenchi*—the curious misconception of the real force of the enemy, and the utter helplessness of their own position, which the Common-Sense philosophers displayed. The Sceptics had made an irresistible onslaught upon the two fortresses of philosophy, Perception and Reason. They showed Perception to be based upon Appearance, and Appearance to be only *Appearance*, but not *Certainty*. They showed also that Reason was unable to distinguish between Appearance and Certainty, because, in the first place, it had nothing but Phenomena (Appearances) to build upon; and, in the second place, because there is no criterium to apply to Reason itself. Having gained this victory, they proclaimed Philosophy no longer existent. Whereupon the Stoics valorously rise, and, taking their stand upon Common-Sense, believe they rout the forces of the Sceptics; believe they retake the lost fortresses by declaring that Perceptions are true as well as false, and that you may distinguish the true from the false, by—distinguishing them: and that Reason has its criterium in Evidence, which requires no criterium, it is so clear. This seems to us pretty much the same as if the French were to invade Great Britain; possess themselves of London, Edinburgh, and Dublin, declare England the subject of France, and patriots were then to declare that the French were to be driven home again by a party of volunteers taking their stand upon Hampstead Heath, displaying the banners of England, and with loud alarums proclaiming the invaders defeated.

But it is time to consider the Ethical doctrines of the Stoics; and to do this effectually we must glance at their conception of the Deity. There are two elements in Nature. The first is ὕλη πρώτη, or primordial matter; the passive element from which things are formed. The second is the active element, which forms things out of matter: Reason, Destiny (εἱμαρμένη), God. The divine Reason operating upon matter bestows upon it the laws which govern it, laws which the Stoics called λόγοι σπερματικοί, or productive causes. God is the Reason of the world.

With this speculative doctrine it is easy to connect their practical

doctrine. Their Ethics are easily to be deduced from their theology. If Reason is the great creative law, to live conformably with Reason must be the practical moral law. If the universe be subject to a general law, every part of that universe must also be duly subordinate to it. The consequence is clear: there is but one formula for Morals, and that is, 'Live harmoniously with Nature,' *ὁμολογομένως τῇ φύσει ζῆν*.

This is easily said. An anxious disciple might however desire greater precision, and ask, Is it universal nature, or is it the particular nature of man, that I am to live in unison with? Cleanthes taught the former; Chrysippus the latter; or, we should rather say, taught that both individual and universal nature should be understood by the formula. And this appears to have been the sense in which it was usually interpreted.

The distinctive tendency of the formula cannot be mistaken: it is to reduce everything to Reason, which, as it has supremacy in creation, must also have supremacy in man. This is also the Platonic conception. It makes Logic the rule of life; and assumes that there is nothing in man's mind which cannot be reduced within the limits of Logic; assumes that man is all intellect. It follows, that everything which interferes with a purely intellectual existence is to be eliminated as dangerous. The pleasures and the pains of the body are to be despised: only the pleasures and the pains of the intellect are worthy to occupy man. By his passions he is made a slave; by his intellect he is free. His senses are passive; his intellect is active. It is his duty therefore to surmount and despise his passions and his senses, that he may be free, active, virtuous.

We have here the doctrine of the Cynics, somewhat purified, but fundamentally the same; we have here also the anticipation of Rome; the forethought of that which was subsequently realized in act. Rome was the fit theatre of Stoicism, because Rome was peopled with soldiers: these soldiers had their contempt of death formed in perpetual campaigns. How little the Romans regarded the life of man their history shows. The gladiatorial combats, brutal and relentless, must have hardened the minds of all spectators; and there were no softening influences to counteract them. How different the Greeks! They did not pretend to despise this beautiful life; they did not affect to be above humanity. Life was precious, and they treasured it: treasured it not with petty fear, but with noble ingenuousness. They loved life, and wept on quitting it; and they wept without shame. They loved life, and they said

so. When the time came for them to risk it, or to give it for their country, or their honour,—when something they prized higher was to be gained by the sacrifice,—then they died unflinchingly. The tears shed by Achilles and Ulysses did not unman them: these heroes fought terribly, as they loved tenderly. Philoctetes, in agony, howls like a wild beast, because he feels pain, and feels no shame in expressing it. But these shrieks have not softened him: he is still the same stern, terrible, implacable Philoctetes.

The Stoics, in their dread of becoming effeminate, became marble. They despised pain; they despised death. To be above pain was thought manly. They did not see that, in this respect, instead of being above Humanity, they sank miserably below it. If it is a condition of our human organization to be susceptible of pain, it is only affectation to conceal the *expression* of that pain. Could silence stifle pain, it were well; but to stifle the cry, is not to stifle the feeling; and to have a feeling, yet affect not to have it, is pitiful. The Savage soon learns that philosophy; but the civilized man is superior to it. You receive a blow, and you do not wince? so much of heroism is displayed by a stone. You are face to face with Death, and you have no regrets? then you are unworthy of life. Real heroism feels the pain it conquers, and loves the life it surrenders in a noble cause.

As a reaction against effeminacy, Stoicism may be applauded; as a doctrine, it is one-sided. It ends in apathy and egoism. Apathy, indeed, was considered by the Stoics as the highest condition of Humanity; whereas, in truth, it is the lowest.

CHAPTER IV.

THE NEW ACADEMY.

§ I. Arcesilaus and Carneades.

THE New Academy would solicit our attention, were it only for the celebrity bestowed on it by Cicero and Horace; but it has other and higher points of interest than those of literary curiosity. The combat of which it was the theatre was, and is, of singular importance. The questions connected with it are those vital questions respecting the origin and certitude of human knowledge, which so long have occupied the ingenuity of thinkers; and the consequences which flow from either solution of the problem are of the utmost importance.

The Stoics endeavoured to establish the certitude of human knowledge, in order that they might establish the truth of moral principles. They attacked the doctrines of the Sceptics, and believed they triumphed by bringing forward their own doctrine of Common-Sense. But the New Academicians had other arguments to offer. They too were Sceptics, although their scepticism differed from that of the Pyrrhonists. The nature of this difference Sextus Empiricus has noted. 'Many persons,' says he, 'confound the Philosophy of the Academy with that of the Sceptics. But although the disciples of the New Academy declare that all things are incomprehensible; yet they are distinguished from the Pyrrhonists in this very dogmatism: they affirm that all things are incomprehensible—the Sceptics do not affirm that. Moreover, the Sceptics consider all perceptions perfectly equal as to the faithfulness of their testimony; the Academicians distinguish between probable and improbable perceptions: the first they class under various heads. There are some, they say, which are merely probable, others which are also confirmed by reflection, others which are subject to no doubt. Assent is of two kinds: simple assent which the mind yields without repugnance as without desire, such as that of a child following its master; and the assent which follows upon conviction and reflection. The Sceptics admitted the former kind; the Academicians the latter.'

These differences are of no great moment; but in the history of sects we find the smallest variation invested with a degree of importance; and we can understand the pertinacity with which the Academicians distinguished themselves from the Sceptics, even on such slight grounds as the above.

In treating of the Academicians we are forced to follow the plan pursued with the Sceptics, namely to consider the doctrines of the whole sect, rather than to particularize the share of each individual member. The Middle Academy and the New Academy we thus unite in one; although the ancients drew a distinction between them, it is difficult for moderns to do so. Arcesilaus and Carneades, therefore, shall be our types.

Arcesilaus was born at Pitane in the 116th Olympiad (B.C. 316). He was early taught mathematics and rhetoric, became the pupil of Theophrastus, afterwards of Aristotle, and finally of Polemo the Platonist. In this last school he was contemporary with Zeno, and probably there began that antagonism which was so remarkable in their subsequent career. On the death of Crates, Arcesilaus filled the Academic chair, and filled it with great ability and success. His fascinating manners won him general regard. He was learned and sweet-tempered, and generous to a fault. Visiting a sick friend, who, he saw, was suffering from privation, he slipped, unobserved, a purse of gold underneath the sick man's pillow. When the attendant discovered it, the sick man said with a smile, 'This is one of Arcesilaus's generous frauds.' He was of a somewhat luxurious temper, but he lived till the age of seventy-five, when he killed himself by hard drinking.

Carneades, the most illustrious of the Academicians, was born at Cyrene, in Africa, Ol. 141, 4 (B.C. 213). He was a pupil of Diogenes the Stoic, who taught him the subtleties of disputation. This made him sometimes exclaim in the course of a debate: 'If I have reasoned rightly, you are wrong; if not, O Diogenes, return me the *mina* I paid you for my lessons.' On leaving Diogenes he became the pupil of Hegesinus, who then held the Academic chair; by him he was instructed in the sceptical principles of the Academy, and on his death he succeeded to his chair. He also diligently studied the voluminous writings of Chrysippus. These were of great value to him, exercising his subtlety, and trying the temper of his own metal. He owed so much to this opponent that he used to say, 'Had there not been a Chrysippus, I should not be what I am:' a sentiment very easy of explanation. There are two kinds of writers:

those who directly instruct us in sound knowledge, and those who indirectly lead us to the truth by the very opposition they raise against their views. Next to exact knowledge, there is nothing so instructive as exact error: an error clearly stated, and presented in somewhat the same way as it at first presented itself to the mind which now upholds it, enables us to see not only that it is an error, but by what process it was deduced from its premisses, and thus is among the most valuable modes of instruction. It is better than direct instruction: better, because the learner's mind is called into full activity, and apprehends the truth for itself, instead of passively assenting to it.

Carneades was justified in his praise of Chrysippus. He felt how much he owed to his antagonist. He felt that to him he owed a clear conception of the Stoical error, and a clear conviction of the truth of the Academic doctrine; and owed also no inconsiderable portion of that readiness and subtlety which marked him out amongst his countrymen as a fitting Ambassador to send to Rome.

Carneades in Rome—Scepticism in the Stoic city—presents an interesting picture. The Romans crowded round him, fascinated by his subtlety and eloquence. Before Galba—before Cato the Censor—he harangued with marvellous unction in praise of Justice; and the hard brow of the grim Stoic softened; an approving smile played over those thin firm lips. But the next day the brilliant orator undertook to exhibit the uncertainty of all human knowledge; and, as a proof, he refuted all the arguments with which the day before he had supported Justice. He spoke against Justice as convincingly as he had spoken for it. The brow of Cato darkened again, and with a keen instinct of the dangers of such ingenuity operating upon the Roman youth, he persuaded the Senate to send back the Philosophers to their own country.

Carneades returned to Athens, and there renewed his contest with the Stoics. He taught with great applause, and lived to the advanced age of ninety.

That the Academicians should have embraced Scepticism is not strange: indeed, as we have said, Scepticism was the inevitable result of the tendencies of the whole epoch; and the only sect which did not accept it was forced to find a refuge in Common-Sense: that is to say, was forced to find refuge in the abdication of Philosophy, which abdication was in itself a species of Scepticism. But it may seem strange that the Academy should derive itself from Plato; it may seem strange that Arcesilaus should be a continuer

and a warm admirer of Plato. The ancients themselves, according to Sextus Empiricus, were divided amongst each other respecting Plato's real doctrine; some considering him a sceptic, others a dogmatist. We have already explained the cause of this difference of opinion, and have shown how very little consistency and precision there is in the ideas of Plato upon all subjects except Method. Scepticism, therefore, might very easily result from a study of his writings. But this is not all. Plato's attack upon the theories of his predecessors, which were grounded upon sense-knowledge, is constant, triumphant. The dialogue of the *Theætetus*, which is devoted to the subject of Philosophy, is an exposition of the incapacity of sense to furnish materials for Philosophy. All that sense can furnish the materials for is *Opinion*, and Opinion, as he frequently declares, even when it is Right Opinion, never can be Philosophy. Plato, in short, destroyed all the old foundations upon which theories had been constructed. He cleared the ground before commencing his own work. By this means he obviated the attacks of the Sophists, and yet refused to sustain the onus of errors which his predecessors had accumulated. The Sophists saw the weakness of the old belief, and attacked it. Having reduced it to ruins, they declared themselves triumphant. Plato appeared, and admitted the fact of the old fortress being in ruins, and its deserving to be so; but he denied that the city of Truth was taken. 'Expend,' said he, 'your wrath and skill in battering down such fortresses; I will assist you; for I too declare them useless. But the real fortress you have not yet approached; it is situate on far higher ground.' Sense-knowledge and Opinion being thus set aside, the stronghold of Philosophy was the Ideal theory: in it Plato found refuge from the Sophists. Aristotle came and destroyed that theory. What then remained? Scepticism.

Arcesilaus admitted, with Plato, the uncertainty of Opinion; but he also admitted with Aristotle the incorrectness of the Ideal theory. He was thus reduced to absolute Scepticism. The arguments of Plato had quite destroyed the certitude of Opinion; the arguments of Aristotle had quite destroyed the Ideal theory. And thus, by refusing to accept one argument of the Platonic doctrine, Arcesilaus could from Plato's works deduce his own theory of the Incomprehensibility of all things; the *acatalepsy*.

The doctrine of *acatalepsy* recalls to us the Stoical doctrine of *catalepsy* or Apprehension, to which it is the antithesis. The *Cataleptic Phantasm* was the True Perception, according to the Stoics;

and, according to the Academicians, all Perceptions were *acataleptic, i. e.* bore no conformity to the objects perceived; or, if they did bear any conformity thereto, it could never be known.

Arcesilaus saw the weak point of the Stoical argument. Zeno pretended that there was a Criterium, which decided between science and opinion, which decided between true and false perceptions, and this was the *Assent* which the mind gave to the truth of certain perceptions: in other words, Common-Sense was the Criterium. 'But,' said Arcesilaus, 'what is the difference between the Assent of a wise man, and the Assent of a madman?—There is no difference but in name.' He felt that the criterium of the Stoics was itself in need of a Criterium.

Chrysippus the Stoic combated Arcesilaus, and was in turn combated by Carneades. The great question then pending was this:—

What Criterium is there of the truth of our knowledge?

The Criterium must reside either in Reason, in Conception, or in Sensation. It cannot reside in Reason, because Reason itself is not *independent* of the other two: it operates upon the materials furnished by them, and is dependent upon them. Our knowledge is derived from the senses, and every object presented to the mind must consequently have been originally presented to the senses: on their accuracy the mind must depend.

Reason cannot therefore contain within itself the desired Criterium. Nor can conception; for the same arguments apply to it. Nor can the Criterium reside in Sense; because, as all admit, the senses are deceptive, and there is no perception which cannot be false? For what is Perception? Our Senses only inform us of the presence of an object in so far as they are affected by it. But what is this? Is it not *we* who are affected—*we* who are modified? Yes; and this modification reveals both itself and the object which causes it. Like Light, which in showing itself, shows also the objects upon which it is thrown; like light also, it shows objects in *its own colours*. Perception is a peculiar *modification of the soul*. The whole problem now to solve is this:—

Does every modification of the soul exactly correspond with the external object which causes that modification?

This is a problem presented by the Academicians. They answered, but they did not solve it; they left to their adversaries the task of proving the *correspondence* between the object and subject. We may here venture to carry out their principles and endeavour to solve the problem, as it is one still agitating the minds of metaphysicians.

In nowise does the Sensation correspond with the object; in nowise does the modification correspond with the external cause, except in the relation of cause and effect. The early thinkers were well aware, that in order to attribute any certainty to sensuous knowledge, we must assume that the Senses transmit us *Copies* of things. Democritus, who was the first to see the necessity of such an hypothesis, suggested that our Ideas were *Eidola*, or Images of the Objects, of an extremely airy texture, which were thrown off by the objects in the shape of effluvia, and entered the brain by the pores. Those who could not admit such an explanation substituted the hypothesis of *Impressions*. Ask any man, not versed in such inquiries, whether he believes his perceptions to be *copies* of objects, —whether he believes that the flower he sees before him exists quite independently of him, and of every other human being, and exists with the same attributes of shape, fragrance, taste, etc., his answer is sure to be in the affirmative. He will regard you as a madman if you doubt it. And yet so early as the epoch of which we are now sketching the history, thinking men had learned in somewise to see that our Perceptions were *not* copies of Objects, but were simply modifications of our minds, caused by the objects. Once admit this, and sensuous knowledge is for ever pronounced not only uncertain, but absolutely false. Can such a modification be a *copy* of the cause which modifies? As well ask, Is the pain, occasioned by a burn, a copy of the fire? Is it at all like the fire? Does it at all express the essence of fire? Not in the least. It only expresses one relation in which we stand to the fire; one effect upon us which fire will produce. Nevertheless fire is an Object, and a burn is a sensation. The way in which we perceive the existence of the Object (fire) is similar to that in which we perceive the existence of other objects: and that way is in the modifications they occasion; *i. e.* in the Sensations.

Let us take another instance. We say that we hear Thunder: in other words we have a Perception of the Object called Thunder. Our sensation really is of a sound, which the electrical phenomena we call Thunder have caused in us, by acting on the aural nerve. Is our sensation of this sound any copy of the Phenomena? Does it in any degree express the nature of the Phenomena? No; it only expresses the sensation we receive from a certain electrical state of the atmosphere.

In these cases most people will readily acquiesce; for, by a very natural confusion of ideas, whenever they speak of perceptions they

mostly mean visual perceptions; because with sight the clearest knowledge is associated; because also the hypothesis of our perceptions being copies of Things is founded upon sight. The same persons who would willingly admit that Pain was not a copy of the Fire, nor of anything in the nature of Fire, except in its effect on our nerves, would protest that the appearance of Fire *to the Eye* was the *real* appearance of the Fire, all Eyes apart, and quite independent of human vision. Yet if all sentient beings were at once swept from the face of the earth, the fire would have no attribute at all *resembling* Pain; because Pain is a modification, not of Fire, but of a sentient being. In like manner, if all sentient beings were at once swept from the face of the earth, the Fire would have no attributes at all *resembling* light and colour; because light and colour are modifications of the sentient being, caused by *something* external, but no more resembling its cause than the pain inflicted by an instrument resembles that instrument.

Pain and colour are modifications of the sentient being. The question at issue is, Can a modification of a sentient being be a copy of its cause? The answer is clearly a negative. We may imagine that when we see an Object our sensation is a copy of it, because we believe that the Object paints itself upon the retina; and we liken perception to a mirror, in which things are reflected. It is extremely difficult to divest ourselves of this prejudice; but we may be made aware of the fallacy if we attend to those perceptions which are not visual—to the perceptions of sound, fragrance, taste, or pain. These are clearly nothing but modifications of our sentient being, *caused* by external objects, but in nowise *resembling* them. We are all agreed that the heat is not in the fire, but in us; that sweetness is not in the sugar, but in us; that fragrance is but the particles which, impinging on the olfactory nerve, cause a sensation in us. In all beings similarly constituted these things would have similar effects, would cause pain, sweetness, and fragrance; but on all other beings the effects would be different. Fire would burn paper, but not pain it; Sugar would mix with water, but not give it the sensation of sweetness.

The radical error of those who believe that we perceive things *as they are*, consists in mistaking a metaphor for a fact, and believing that the mind is a mirror in which external objects are reflected. But, as Bacon finely says, 'The human understanding is like an *unequal* mirror to the rays of things, *which, mixing its own nature with the nature of things, distorts and perverts them.*' We attribute

heat to the fire, and colour to the flower; heat and colour really being *states of our consciousness,* occasioned by the fire and the flower under certain conditions.

Perception is nothing more than *a state of the percipient; i. e.* a state of consciousness. This state may be occasioned by some external cause, and may be as complex as the cause is complex, but it is still nothing more than a state of consciousness—an effect produced by an adequate cause. Of every change in our Sensation we are conscious, and in time we learn to give definite names and forms to the causes of these changes. But in the fact of Consciousness there is nothing *beyond* consciousness. In our perceptions we are conscious only of the changes which have taken place within us: we can never transcend the sphere of our own consciousness; we can never go out of ourselves, and become aware of the objects which caused those changes. All we can do is to identify certain *external appearances* with certain *internal changes, e. g.* to identify the appearance we name 'fire' with certain sensations we have known to follow our being placed near it. Turn the fact of Consciousness how we will, we can see nothing in it but the change of a sentient being operated by some external cause. Consciousness is no mirror of the world; it gives no faithful reflection of things as they are *per se;* it only gives a faithful report of its own modification *as excited* by external things.

The world, apart from our consciousness, *i. e.* the non-ego *quâ* non-ego—the world *per se*—is, in all likelihood, something utterly different from the world as we know it; for all we know of it is derived through our consciousness of what its effects are on *us,* and our consciousness is obviously only a *state of ourselves,* not a copy of external things.

It may be here asked, How do you infer that the world is different from what it appears to us?

The question is pertinent, and may be answered briefly. The world *per se* must be different from what it appears to us through consciousness, because to us it is only known in the relation of cause and effect. World is the Cause; our Consciousness the Effect. But the same Cause operating on some other organization would produce a very different effect. If all animals were blind, there would be no such thing as *light* (*i. e.* light as we know it), because light is a *phenomenon* made up out of the operation of some unknown thing on the retina. If all animals were deaf, there would be no such thing as *sound,* because sound is a *phenomenon* made up out of the

operation of some unknown thing on the tympanum. If all men were without their present nervous system, there would be no such thing as *pain*, because pain is a *phenomenon* made up out of the operation of some external thing on the specialized nervous system.

Light, colour, sound, taste, smell, are all states of Consciousness; what they are beyond Consciousness, as existences *per se*, we cannot know, we cannot imagine, because we can only conceive them *as* we know them. Light, with its myriad forms and colours —Sound, with its thousand-fold life—make Nature what Nature appears to us. But they do not exist *as such* apart from our consciousness; they are the investitures with which we clothe the world. Nature in her insentient solitude is an eternal Darkness—an eternal Silence.

We conclude, therefore, that the world *per se* in nowise resembles the World as it appears to us. Perception is an Effect; and its truth is not the truth of *resemblance*, but of *relation*, *i. e.* it is the true operation of the world on us, the true operation of Cause and Effect. But perception is not the true resemblance of the world: Consciousness is no mirror reflecting external things.

Let us substitute for the metaphor of a mirror the more abstract expression: 'Perception is the Effect of an external Object acting on a sentient being,' and much of the confusion darkening this matter will be dissipated. An Effect, we know, agrees with its Cause, but it does not necessarily *resemble* it. An Effect is no more a Copy of the Cause than pain is a copy of the application of fire to a finger: *ergo*, Perception can never be an accurate report of what things are *per se*, but only of what they are in relation to us.

It has been said that, although no single sense does actually convey to us a correct impression of anything, nevertheless we are enabled to confirm or modify the report of one sense by the report of another sense, and that the result of the whole activity of the five senses is a true impression of the external Thing. This is a curious fallacy: it pretends that a number of *false* impressions are sufficient to constitute a true one!

The conclusion to be drawn from the foregoing premisses is this: There is no correspondence between the object and the sensation, except that of Cause and Effect. Sensations are not Copies of Objects; do not at all resemble them. As we can only know objects through sensation—*i. e.* as we can only know our sensations—we can never ascertain the truth respecting objects.

This brings us back to the New Academy, the disciples of which

strenuously maintained that Perception, being nothing but a modification of the Soul, could never reveal the real nature of things.

Do we then side with the Academicians in proclaiming all human knowledge deceptive? No: to them, as to the Pyrrhonists, we answer: You are quite right in affirming that man cannot transcend the sphere of his own consciousness, cannot penetrate the real essences of things, cannot know causes, can only know phenomena. But this affirmation—though it crushes Metaphysics—though it interdicts the inquiry into *noumena*, into essences and causes, as frivolous because futile—does not touch Science. If all our knowledge is but a knowledge of phenomena, there can still be a Science of Phenomena adequate to all man's true wants. If Sensation is but the effect of an External Cause, we, who can never know that Cause, know it in its relation to us, *i. e.* in its Effect. These Effects are as constant as their Causes; and, consequently, there can be a Science of Effects. Such a Science is that named Positive Science, the aim of which is to trace the Co-existences and Successions of Phenomena, *i. e.* to trace the relation of Cause and Effect throughout the universe submitted to our inspection.

But neither the Pyrrhonists nor the Academicians saw this refuge for the mind; they consequently proclaimed Scepticism as the final result of inquiry.

CHAPTER V.

SUMMARY OF THE EIGHTH EPOCH.

WE have now brought our narrative to the second crisis in the history of speculation. The Scepticism which made the Sophists powerful, and which closed the first period of this history, we now behold once more usurping the intellects of men, and this time with far greater power. A Socrates appeared to refute the Sophists. Who is there to refute and to discredit the Sceptics?

The Sceptics, and all thinkers during the epoch we have just treated were such, whether they called themselves Epicureans, Stoics, Pyrrhonists or New Academicians,—the Sceptics, we say, were in possession of the most formidable arms. From Socrates, from Plato, and from Aristotle, they had borrowed their best weapons, and with these had attacked Philosophy, and attacked it with success.

All the wisdom of the antique world was powerless against the Sceptics. Speculative belief was reduced to the most uncertain 'probability.' Faith in philosophic Truth was extinct. Faith in human endeavour that way was gone. Philosophy was impossible.

But there was one peculiarity of the Socratic doctrine which was preserved even in the midst of scepticism. Socrates had made Ethics the great object of his inquiries: and all subsequent thinkers had given it a degree of attention which before was unknown. Philosophy contented itself with the Common-Sense doctrine of the Stoics, and the Probabilities of the Sceptics, which, however futile as philosophic principles, were efficacious enough as moral principles. Common-Sense may be a bad basis for metaphysical or scientific reasoning; but it is not so bad a basis for a system of morals.

The protest, therefore, which Scepticism made against all Philosophy was not so anarchical in its tendency as the protest made by the Sophists; but it was more energetic, more terrible. In the wisdom of that age there lay no cure for it. The last cry of despair seemed to have been wrung from the baffled thinkers, as they declared their predecessors to have been hopelessly wrong, and declared also that their error was without a remedy.

It was, indeed, a saddening contemplation. The hopes and aspirations of so many incomparable minds thus irrevocably doomed; the struggles of so many men, from Thales, who first asked himself, Whence do all things proceed? to the elaborate systematization of the forms of thought which occupied an Aristotle—the struggles of all these men had ended in Scepticism. Little was to be gleaned from the harvest of their endeavours but arguments against the possibility of that Philosophy they were so anxious to form. Centuries of thought had not advanced the mind one step nearer to a solution of the problems with which, child-like, it began. It began with a child-like question; it ended with an aged doubt. Not only did it doubt the solutions of the great problem which others had attempted; it even doubted the possibility of any solution. It was not the doubt which begins, but the doubt which ends inquiry: it had no illusions.

This was the second crisis of Greek Philosophy. Reason thus assailed could only find a refuge in Faith; and the next period opens with the attempt to construct a Religious Philosophy.

NINTH EPOCH.

PHILOSOPHY ALLIES ITSELF WITH FAITH: THE ALEXANDRIAN SCHOOLS.

CHAPTER I.

RISE OF NEO-PLATONISM.

§ I. Alexandria.

PHILOSOPHY no longer found a home in Greece; it had no longer any worshipers in its native country, and was forced to seek them elsewhere. A period had arrived when all problems seemed to have been stated, and none seemed likely to be solved. Every system which human ingenuity could devise had been devised by the early thinkers; and not one had been able to withstand examination. In the early annals of speculation, a new and decisive advance is made whenever a new question is asked; to suggest a doubt, is to exercise ingenuity; to ask a question, is to awaken men to a new view of the subject. But now all questions had been asked; old questions had been revived under new forms; nothing remained to stimulate inquiry, nothing to give speculators a hope of success.

Unable to ask new questions, or to offer new answers to those already asked, the Philosophers readily seized on the only means which enabled them to gain renown: they travelled. They carried their doctrines into Egypt and to Rome; and in those places they were listened to with wonder and delight. Their old doctrines were novelties to a people who had no doctrines of its own; and, from the excessive cost of books in those days, almost all instruction being oral, the strangers were welcomed warmly, and the doctrines imported were as novel as if they had been just invented.

Philosophy, exiled from Greece, was a favoured guest in Alexandria and Rome: but in both cases it was a stranger, and could not be naturalized. In Alexandria, however, it made a brilliant display; and the men it produced gave it an originality and an influence which it never possessed in Rome.

Roman Philosophy was but a weak paraphrase of the Grecian; and we, therefore, give it no place in this history. To speak Greek, to write Greek, became the fashionable ambition of Rome. The child was instructed by a Greek slave. Greek Professors taught Philosophy and Rhetoric to aspiring youths. Athens had become the necessary '*tour*' which was to complete a man's education. It was there that Cicero learned those ideas which he delighted in setting forth in charming dialogues. It was there Horace learned that light and careless philosophy, which shines through the sparkling crystal of his verse. Wandering from the Academy to the Porch, and from the Porch to the Garden, he became imbued with that scepticism which checks his poetical enthusiasm; he learned to make a system of that pensive epicureanism which gives so peculiar a character to his poems; a character which, with a sort of after-dinner freedom and *bonhomie*, recommends him to men of the world.

In Rome, Philosophy might tinge the poetry, give weight to oratory, method to jurisprudence, and supply some topics of conversation; but it was no Belief filling the minds of serious men: it took no root in the national existence; it produced no great Thinkers.

In Alexandria the case was different. There several schools were formed, and some new elements introduced into the doctrines then existent. Great thinkers—Plotinus, Proclus, Porphyry—made it illustrious; and it had a rival, whose antagonism alone would confer immortal renown upon it: that rival was Christianity.

In no species of grandeur was the Alexandrian school deficient, as M. Saisset justly observes:* genius, power, and duration, have consecrated it. Re-animating, during an epoch of decline, the fecundity of an aged civilization, it created a whole family of illustrious names. Plotinus, its real founder, resuscitated Plato; Proclus gave the world another Aristotle; and, in the person of Julian the Apostate, it became master of the world. For three centuries it was a formidable rival to the greatest power that ever appeared on earth—the power of Christianity; and, if it succumbed in the struggle, it only fell with the civilization of which it had been the last rampart.

Alexandria, the centre of gigantic commerce, soon became a new

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* *Revue des Deux Mondes*, 1844, tome iii. p. 783; an admirable article on the Alexandrian Schools.

metropolis of science, rivalling Athens. The Alexandrian Library is too celebrated to need more than a passing allusion: to it, and to the men assembled there, we owe the vast labours of erudition in philosophy and literature which were of such service to the world. We cannot here enumerate all the men of science who made it illustrious; enough if we mention Euclid, for Mathematics; Conon and Hipparchus, for Astronomy; Eratosthenes, for Geography; and Aristarchus, for literary Criticism. Besides these, there were the Philosophers; and Lucian, the witty Sceptic; and the Poets, Apollonius Rhodius, Callimachus, Lycophron, Tryphiodorus, and, above all, the sweet idyllic Theocritus.

It is a curious spectacle. Beside the Museum of Alexandria there rises into formidable importance the Didascalia of the Christians. In the same city, Philo the Jew, and Œnesidemus the Pyrrhonist, founded their respective schools. Ammonius Saccas appears there. Lucian passes through at the same time that Clemens Alexandrinus is teaching. After Plotinus has taught, Arius and Athanasius will also teach. Greek Scepticism, Judaism, Platonism, Christianity—all have their interpreters within so small a distance from the temple of Serapis!

§ II. Philo.

Alexandria, as we have seen, was the theatre of various struggles: of these we are to select one, and that one the struggle of the Neo-Platonists with the Christian Fathers.

Under the name of the Alexandrian School are designated, loosely enough, all those thinkers who endeavoured to find a refuge from Scepticism in a new Philosophy, based on altogether new principles. Now, although these various Thinkers by no means constitute a School, they constitute a Movement, and they form an Epoch in the history of Philosophy. We may merely observe that the 'Alexandrian School' and the 'Neo-Platonists' are not convertible terms: the former designates a whole movement, the latter designates the most illustrious section of that movement.

Philo the Jew is the first of these Neo-Platonists. He was born at Alexandria, a few years before Christ. The influence of Greek ideas had long been felt in Alexandria, and Philo, commenting on the writings of the Jews, did so in the spirit of one deeply imbued with Greek thought. His genius was Oriental, his education Greek; the result was a strange mixture of mysticism and dialec-

tics.* To Plato he owed much: but to the New Academy, perhaps more. From Carneades he learned to distrust the truth of all sensuous knowledge, and to deny that Reason had any criterium of truth.

Thus far he was willing to travel with the Greeks; thus far had dialectics conducted him. But there was another element in his mind beside the Greek: there was the Oriental or mystical element. If human knowledge is a delusion, we must seek for truth in some higher sphere. The Senses may deceive; Reason may be powerless; but there is still a faculty in man—there is Faith. Real Science is the gift of God: its name is Faith: its origin is the goodness of God: its cause is Piety.

This conception is not Plato's, yet is nevertheless Platonic. Plato would never have thus condemned Reason for the sake of Faith; and yet he, too, thought that the nature of God could not be known, although his existence could be proved. In this respect he would have agreed with Philo. But, although Plato does not speak of Science as the gift of God, he does in one place so speak of Virtue; and he devotes the whole dialogue of the *Meno* to show that Virtue cannot be taught, because it is not a thing of the understanding, but a gift of God. The reasons he there employs may easily have suggested to Philo their application to Philosophy.

From this point Philo's Philosophy of course becomes a theology. God is ineffable, incomprehensible: his existence may be known; his nature can never be known; *ὁ δ' ἄρα οὐδὲ τῷ νῷ καταληπτὸς, ὅτι μὴ κατὰ τὸ εἶναι μόνον.* But to know that he exists is in itself the knowledge of his being one, perfect, simple, immutable, and *without attribute.* This knowledge is implied in the simple knowledge of his existence: he cannot be otherwise, if he exist at all. But to know this, is not to know in what consists his perfection. We cannot penetrate with our glance the mystery of his essence. We can only believe.

If however we cannot know God in his essence, we can obtain some knowledge of his Divinity: we know it in *The Word.* This λόγος—this *Word* (using the expression in its Scriptural sense)—fills a curious place in all the mystical systems. God being incomprehensible, inaccessible, an intermediate existence was necessary

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* St. Paul thus comprehensively expresses the national characteristic of the Jews and Greeks: 'The Jews require a sign (*i. e.* a miracle), and the Greeks seek after wisdom (*i. e.* philosophy).'—1 *Corinth.* i. 22.

as an interpreter between God and Man, and this intermediate existence the Mystics called *The Word.*

The Word, according to Philo, is God's Thought. This Thought is twofold: it is λόγος ἐνδιάθετος, the Thought as embracing all Ideas (in the Platonic sense of the term Idea), *i. e.* Thought *as* Thought; and it is λόγος προφορικός, the Thought *realized:* Thought become the World.

In these three *hypostases* of the Deity we see the Trinity of Plotinus foreshadowed. There is, first, God the Father; secondly, the Son of God, *i. e.* the λόγος; thirdly, the Son of the λόγος, *i. e.* the World.

This brief outline of Philo's Theology will sufficiently exemplify the two great facts which we are anxious to have understood:—1st, the union of Platonism with Oriental mysticism; 2ndly, the entirely new direction given to Philosophy, by uniting it once more with Religion. It is this direction which characterizes the Movement of the Alexandrian School. Reason had been shown to be utterly powerless to solve the great questions of Philosophy then agitated. Various Schools had pursued various Methods, but all with one result. Scepticism was the conclusion of every struggle. 'And yet,' said the Mystics, 'we have an idea of God and of his goodness; we have an ineradicable belief in his existence, and in the Perfection of his nature, consequently, in the beneficence of his aims. Yet these ideas are not innate; were they innate, they would be uniformly entertained by all men, and amongst all nations. If they are not innate, whence are they derived? Not from Reason; not from experience; then from Faith.'

Now, Philosophy, conceive it how you will, is entirely the offspring of Reason: it is the endeavour to explain by Reason the mysteries amidst which we 'move, live, and have our being.' Although it is legitimate to say, 'Reason is incapable of solving the problems proposed to it,' it is not legitimate to add, '*therefore* we must call in the aid of Faith.' In Philosophy, Reason must either reign alone, or abdicate. No compromise is permissible. If there are things between heaven and earth which are not dreamt of in our Philosophy—which do not come within the possible sphere of our Philosophy—we may believe in them, indeed, but we cannot christen that belief philosophical.

One of two things,—either Reason is capable of solving the problems, or it is incapable: in the one case its attempt is philosophical; in the second case its attempt is futile. Any attempt to mix

up Faith with Reason, in a matter exclusively addressed to the Reason, must be abortive. We do not say that what Faith implicitly accepts, Reason may not explicitly justify; but we say, that to bring Faith to the aid of Reason, is altogether to destroy the *philosophical* character of an inquiry. Reason may justify Faith; but Faith must not furnish conclusions *for* Philosophy. Directly Reason is abandoned, Philosophy ceases; and every explanation then offered is a theological explanation, and must be put to altogether different tests from what a philosophical explanation would require.

All speculation must originally have been theological; but in process of time Reason timidly ventured upon what are called 'natural explanations;' and from the moment that it felt itself strong enough to be independent, Philosophy was established. In the early speculations of the Ionians we saw the pure efforts of Reason to explain mysteries. As Philosophy advanced, it became more and more evident that the problems attacked by the early thinkers were, in truth, so far from being nearer a solution, that their extreme difficulty was only just becoming appreciated. The difficulty became more and more apparent, till at last it was pronounced insuperable: Reason was declared incompetent. Then the Faith which had so long been set aside was again called to assist the inquirer. In other words, Philosophy, discovering itself to be powerless, resigned in favour of Theology.

When therefore we say that the direction given to the human mind by the Alexandrian School, in conjunction with Christianity—the only two spiritual movements which materially influenced the epoch we are speaking of—was a theological direction, the reader will at once see its immense importance, and will be prepared to follow us in our exposition of the mystical doctrines of Plotinus.

CHAPTER II.

ANTAGONISM OF CHRISTIANITY AND NEO-PLATONISM.

§ I. Plotinus.

WHILE Christianity was making rapid and enduring progress in spite of every obstacle; while the Apostles wandered from city to city, sometimes honoured as Evangelists, at other times insulted and stoned as enemies, the Neo-Platonists were developing the germ deposited by Philo, and not only constructing a theology, but endeavouring on that theology to found a Church. Whilst a new religion, Christianity, was daily usurping the souls of men, these philosophers fondly imagined that an old Religion could effectually oppose it.

Christianity triumphed without much difficulty. Looking at it in a purely moral view, its immense superiority is at once apparent. The Alexandrians exaggerated the vicious tendency of which we have already seen the fruits in the Cynics and Stoics,—the tendency to despise Humanity. Plotinus blushed because he had a body: contempt of human personality could go no further. What was offered in exchange? The ecstatic perception; the absorption of personality in that of the Deity—a Deity inaccessible to knowledge as to love—a Deity which the soul can only attain by a complete annihilation of its personality.

The attempt of the Neo-Platonists failed, as it deserved to fail; but it had great talents in its service, and it made great noise in the world. It had, as M. Saisset remarks, three periods. The first of these, the least brilliant but the most fruitful, is that of Ammonius Saccas and Plotinus. A porter of Alexandria becomes the chief of a School, and men of genius listen to him; amongst his disciples are Plotinus, Origen, and Longinus. This School is perfected in obscurity, and receives at last a solid basis by the development of a metaphysical system. Plotinus, the author of this system, shortly after lectures at Rome with amazing success. It is then that the Alexandrian School enters upon its second period. With Porphyry and Iamblicus it becomes a sort of Church, and

disputes with Christianity the empire of the world. Christianity had ascended the throne in the person of Constantine; Neo-Platonism dethrones it, and usurps its place in the person of Julian the Apostate. But now mark the difference. In losing Constantine, Christianity lost nothing of its real power; for its power lay in the might of convictions, and not in the support of potentates; its power was a spiritual power, ever active, ever fruitful. In losing Julian, Neo-Platonism lost its power, political and religious. The third period commences with that loss: and the genius of Proclus bestows on it one last gleam of splendour. In vain did he strive to revive the scientific spirit of Platonism, as Plotinus had endeavoured to revive the religious spirit of Paganism: his efforts were vigorous, but sterile. Under Justinian the School of Alexandria became extinct.

Such is the outward history of the School: let us now cast a glance at the doctrines which were there elaborated. In the writings of thinkers professedly eclectic, such as were the Alexandrians, it is obvious that the greater portion will be repetitions and reproductions of former thinkers; and the historian will therefore neglect such opinions to confine himself to those which constitute the originality of the School. The originality of the Alexandrians consists in having employed the Platonic Dialectics as a guide to Mysticism and Pantheism; in having connected the doctrine of the East with the dialectics of the Greeks; in having made Reason the justification of Faith.

There are three essential points to be here examined: their Dialectics, their theory of the Trinity, and their principle of Emanation. By their Dialectics they were Platonists; by their theory of the Trinity they were Mystics; by their principle of Emanation they were Pantheists.

§ II. The Alexandrian Dialectics.

The nature of the Platonic Dialectics we hope to have already rendered intelligible; so that in saying Plotinus employed them we are saved from much needless repetition. But although Dialectics formed the basis of Alexandrian philosophy, they did not, as with Plato, furnish the grounds of *belief*. As far as human philosophy went, Dialectics were efficient; but there were problems which did not come within the sphere of human philosophy, and for these another Method was requisite.

Plotinus agreed with Plato that there could only be a science of Universals. Every individual thing was but a phenomenon, passing quickly away, and having no real existence; it could not therefore be the object of philosophy. But these universals—these Ideas which are the only real existences—are they not also subordinate to some higher Existence? Phenomena were subordinate to Noumena; but Noumena themselves were subordinate to the One Noumenon. In other words, the Sensible world was but the Appearance of the Ideal World, and the Ideal World in its turn was but the mode of God's existence.

The question then arises: How do we know anything of God? The sensible world we perceive through our senses; the Ideal World we gain glimpses of through the *reminiscence* which the sensible world awakens in us; but how are we to take the last step —how are we to know the Deity?

I am a finite being; but how can I comprehend the Infinite? As soon as I comprehend the Infinite, I am Infinite myself; that is to say, I am no longer myself, no longer that finite being, having a consciousness of his own separate existence.* If, therefore, I attain to a knowledge of the Infinite, it is not by my Reason, which is finite and embraces only finite objects, but by some higher faculty, a faculty altogether impersonal, which *identifies itself with its object.*

The identity of Subject and Object—of the thought with the thing thought of—is the only possible ground of knowledge. This position, which some of our readers will recognize as the fundamental position of modern German speculation, is so removed from all ordinary conceptions, that we must digress awhile in order to explain it. Neo-Platonism is a blank without it.

Knowledge and Being are Identical; to know more is to *be* more. This is not, of course, maintaining the absurd proposition that to know a horse is to be a horse: all we know of that horse is only what we know of the changes in ourselves occasioned by some external cause, and identifying our internal change with that external cause, we call it a horse. Here knowledge and being are identical. We really know nothing of the external cause (horse), we only know our own state of being; and to say, therefore, that 'in our knowledge of the horse we are the horse,' is only saying, in unusual language, that our knowledge is a state of our being, and

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* Τίς ἂν οὖν τὴν δύναμιν αὐτοῦ ἕλοι ὁμοῦ πᾶσαν; εἰ γὰρ ὁμοῦ πᾶσαν, τί ἄν τις αὐτοῦ διαφέροι.—*Plotinus, Enn.* v. lib. 5. c. 10.

nothing more. The discussion in the fourth Chapter of the foregoing Epoch respecting perception, was an attempt to prove that knowledge is only a state of our own consciousness, excited by some unknown cause. The cause *must* remain unknown, because knowledge is effect, not cause.

An apple is presented to you; you see it, feel it, taste it, smell it, and are said to know it. What is this knowledge? Simply a consciousness of the various ways in which the apple *affects you.* You are blind and cannot see it: there is one quality less which it possesses, *i. e.* one mode less in which it is possible for you to be affected. You are without the senses of smell and taste: there are two other deficiencies in your knowledge of the apple. So that, by taking away your senses, we take away from the apple each of its qualities: in other words, we take away the means of your being affected. Your knowledge of the apple is reduced to nothing. In a similar way, by endowing you with more senses we increase the qualities of the apple; we increase your knowledge by enlarging your being. Thus are Knowledge and Being identical; knowledge is a state of Being as knowing.

'If,' said Plotinus, 'knowledge is the same as the thing known, the Finite, as Finite, never can know the Infinite, because it cannot *be* the Infinite. To attempt, therefore, to know the Infinite by Reason is futile, it can only be known in immediate presence, *παρουσία.* The faculty by which the mind divests itself of its personality is *Ecstasy.* In this Ecstasy the soul becomes loosened from its material prison, separated from individual consciousness, and becomes absorbed in the Infinite Intelligence from which it emanated. In this Ecstasy it contemplates real existence; it identifies itself with that which it contemplates.'

The enthusiasm upon which this Ecstasy is founded is not a faculty which we constantly possess, such as Reason or Perception: it is only a transitory state, at least so long as our *personal* existence in this world continues. It is a flash of rapturous light, in which *reminiscence* is changed into *intuition,* because in that moment the captive soul is given back to its parent, its God. The bonds which attach the soul to the body are mortal; and God, our father, pitying us, has made those bonds, from which we suffer, fragile and delicate, and in his goodness he gives us certain intervals of respite: *Ζεὺς δὲ πατὴρ ἐλέησας πονουμένας, θνητὰ αὐτῶν τὰ δεσμὰ ποιῶν περὶ ἃ πονοῦνται, δίδωσιν ἀναπαύλας ἐν χρόνοις.*

The Oriental and mystical character of this conception is worth

remarking; at the same time there is a Platonic element in it, which may be noticed. Plato, in the *Ion*, speaks of a chain of inspiration, which descends from Apollo to poets, who transmit the inspiration to the rhapsodists; the last links of the chain are the souls of lovers and philosophers, who, unable to transmit the divine gift, are nevertheless agitated by it. The Alexandrians also admit the divine inspiration: not that inspiration which only warms and exalts the heart, but that inspiration revealing the Truth which Reason can neither discern nor comprehend. Whether, in ascending through the various sciences and laboriously mounting all the degrees of Dialectics, we finally arrive at the summit, and tear away the veil behind which the Deity is hidden; or, instead of thus slowly mounting, we arrive at the summit by a sudden spring, by the force of virtue or by the force of love, the origin of this revelation is the same: the Poet, the Prophet, and the Philosopher only differ in the point of departure each takes. Dialectics, therefore, though a valuable method, is not an infallible one for arriving at Ecstasy. Everything which purifies the soul and makes it resemble its primal simplicity, is capable of conducting it to Ecstasy. Besides, there are radical differences in men's natures. Some souls are ravished with Beauty; and these belong to the Muses. Others are ravished with Unity and Proportion; and these are Philosophers. Others are more struck with Moral perfections; and these are the pious and ardent souls who live only in religion.

Thus, then, the passage from simple Sensation, or from Reminiscence, to Ecstasy, may be accomplished in three ways. By Music (in the ancient and comprehensive sense of the term), by Dialectics, and by Love or Prayer. The result is always the same,—the victory of the Universal over the Individual.

Such is the answer given by the Alexandrians to that world-old question, How do we know God? The Reason of man is incompetent to such knowledge, because Reason is finite, and the finite cannot embrace the infinite. But, inasmuch as Man has a knowledge of the Deity, he must have obtained it in some way: the question is, In what way? This question, which the Christian Fathers were enabled to answer satisfactorily by referring to Revelation, the Alexandrians could only answer most unsatisfactorily by declaring Ecstasy to be the medium of communication, because in Ecstasy the soul lost its personality and became absorbed in the infinite Intelligence.

We may read in this philosophy an instructive lesson respecting

the vicious circle in which all such reasonings are condemned to move:—

> 'The one poor finite being in the abyss
> Of infinite being twinkling restlessly.'

This finite being strives to comprehend that which includes it, and in the impossible attempt exerts its confident ingenuity. Conscious that the finite *as* finite cannot comprehend the infinite, the Alexandrian hypothesis is at least consistent in making the finite become, for an instant, infinite. The grounds however upon which this hypothesis is framed are curious. The axiom is this:—The finite *cannot* comprehend the infinite. The problem is this:—How *can* the finite comprehend the infinite? And the solution is: The finite must *become* the infinite.

Absurd as it is, it is the conclusion deduced by a vigorous intellect from premisses which seemed indisputable. It is only one of the absurdities inseparable from the attempted solution of insoluble problems.

§ III. The Alexandrian Trinity.

We have said that the philosophy of the Alexandrians was a theology; their theology may be said to be concentrated in the doctrine of the Trinity. Nearly allied to the mystery of the Incarnation, which was inseparable from the mystery of Redemption, the dogma of the Holy Trinity was, as M. Saisset remarks, the basis of all the Christian metaphysics. The greater part of the important heresies, Arianism, Sabellianism, Nestorianism, etc., resulted from differences respecting some portion of this doctrine. It becomes, therefore, a matter of high historical interest to determine its parentage. Some maintain that the Trinity of the Christians was but an imitation of that of the Alexandrians; others accuse the Alexandrians of being the imitators. The dispute has been angrily conducted on both sides. It is not our purpose to meddle with it, as our history steers clear of such matters; but we think it right to indicate the quarrel.*

The Alexandrian Trinity is as follows:—God is triple, and, at the same time, one. His nature contains within it three distinct *Hypo-*

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* Such of our readers as may desire a compendious statement of the question are referred to M. Jules Simon, *Histoire de l'Ecole d'Alexandrie*, vol. i. pp. 308–341, and to the article by M. Saisset, in the *Revue des Deux Mondes*, before referred to.

stases (Substances, *i. e.* Persons), and these three make one Being. The first is the Unity: not The One Being, not Being at all, but simple Unity. The second is the Intelligence, which is identical with Being. The third is the Universal Soul, cause of all activity and life.

Such is the formula of the dogma. Let us now see how their Dialectics conducted them to it. On looking abroad upon the world, and observing its constant transformations, what is the first thing that presents itself to our minds as the cause of all these changes? It is Life. The whole world is alive; and, not only alive, but seemingly participating in a life similar to our own. On looking deeper, we discover that life itself is but an effect of some higher cause; and this cause must be the 'Universal' which we are seeking to discover. Our logic tells us that it is Activity—Motion. But with this Motion we cannot proceed far. It soon becomes apparent to us that the myriad on-goings of nature are not merely activities, but *intelligent* activities. No hazard rules this world. Intelligence is everywhere visible. The Cause, then, we have been seeking is at last discovered: it is an Intelligent Activity. Now, what is this, but that mysterious force residing within us, directing us, impelling us? What is this Intelligent Activity but a soul? The soul which impels and directs us is an image of the Soul which impels and directs the world. God, therefore, is the eternal Soul, the ψυχή. We have here the first Hypostasis of the Alexandrians. On a deeper inspection this notion turns out less satisfactory. The dialectician, whose whole art consists in dividing and subdividing, in order to arrive at pure unity—who is always unravelling the perplexed web of speculation, to lay bare at last the unmixed One which had become enveloped in the Many—the dialectician, bred up in the Schools of Plato and Aristotle, could not rest satisfied with so complex an entity as an Intelligent Activity. There are at least two ideas here, and two ideas entirely distinct in nature, viz. Intelligence and Motion. Now, although these might be united in some idea common to both yet superior to both, neither of them could be considered as the last term in an analysis. The Intelligence, when analyzed, is itself the activity of some intelligent being, of Mind, λόγος.

God, therefore, is Mind, absolute, eternal, immutable. We have here the second Hypostasis. Superior to the Divine Soul, ψυχὴ τοῦ παντός, which is the cause of all activity, and king of the sensible world, χορηγὸς τῆς κινήσεως, βασιλεὺς τῶν γιγνομένων, we find the Divine Mind, νοῦς, the magnificence of which we may faintly con-

ceive by reflecting on the splendours of the sensible world, with the Gods, Men, Animals, and Plants, which adorn it: splendours which are but imperfect images of the incomparable lustre of eternal truth. The Divine Mind embraces all the intelligible Ideas which are without imperfection, without movement. This is the Age of Gold, of which God is the Saturn. For Saturn, of whom the Poets have so grandly sung, is the Divine Intelligence; that perfect world which they have described, when

> 'Ver erat æternum: placidique tepentibus auris
> Mulcebant Zephyri natos sine semine flores.
> Mox etiam fruges tellus inarata ferebat;
> Nec renovatus ager gravidis canebat aristis.
> Flumina jam lactis, jam flumina nectaris ibant;
> Flavaque de viridi stillabant ilice mella.' *

That golden age is the Intelligible World, the eternal Thought of eternal Intelligence.

A word or two on this Alexandrian *νοῦς*. It is Thought abstracted from all thinking: it does not reason; for to reason is to acquire a knowledge of something: he who reasons, arrives at a consequence from his premisses, which he did not see in those premisses without effort. But God sees the consequence simultaneously with the premisses. His knowledge resembles our knowledge as hieroglyphic writing resembles our written language: that which we discursively develope, he embraces at once.

This *νοῦς* is at the same time the eternal existence, since all Ideas are united in it. It is the *νόησις νοήσεως νόησις* of Aristotle,—or, to use the language of Plotinus, is the Sight Seeing, the identity of the act of seeing with the object seen: *ἔστι γὰρ ἡ νόησις ὅρασις ὁρῶσα, ἄμφω τὸ ἕν*,—a conception which will at once be understood by recurring to our illustration of the identity of Knowledge and Being, given above.

One would fancy that this was a degree of abstraction to satisfy the most ardent dialectician; to have analyzed thus far, and to have arrived at pure Thought and pure Existence—the Thought apart from Thinking and the Existence apart from its modes—would seem

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* 'The flowers unsown in fields and meadows reigned;
And western winds immortal spring maintained.
In following years the bearded corn ensued
From earth unasked; nor was that earth renewed.
From veins of valleys milk and nectar broke,
And honey sweating from the pores of oak.'—DRYDEN'S *Ovid.*

the very limit of human ingenuity, the last abstraction possible. But no: the dialectician is not yet contented: he sees another degree of abstraction still higher, still simpler: he calls it Unity. God, as Existence and Thought, is God as conceived by human intelligence: but, although human intelligence is unable to embrace any higher notion of God, yet is there in human intelligence a hint of its own weakness and an assurance of God's being something ineffable, incomprehensible. God is not, *en dernière analyse*, Existence and Thought. What is Thought? What is its type? The type is evidently human reason. What does an examination of human reason reveal? This:—To think is to be aware of some object from which the thinker distinguishes himself. To think is to have a self-consciousness, to distinguish one's personality from that of all other objects, to determine the relation of self to not-self. But nothing is external to God: in him there can be no distinction, no determination, no relation. Therefore God, in his highest hypostasis, cannot think, cannot be thought, but must be something superior to thought. Hence, the necessity for a third hypostasis, which third in the order of discovery is first in the order of being: it is Unity,—τὸ ἕν ἁπλοῦν.

The Unity is not Existence, neither is it Intelligence—it is superior to both: it is superior to all action, to all determination, to all knowledge; for, in the same way as the *multiple* is contained in the *simple*, the many in the one, in the same way is the simple contained in the unity; and it is impossible to discover the truth of things until we have arrived at this absolute unity; for, how can we conceive any existing thing except by unity? What is an individual, an animal, a plant, but that unity which presides over multiplicity? What even is multiplicity—an army, an assembly, a flock—when not brought under unity? Unity is omnipresent; it is the bond which unites even the most complex things. The Unity which is absolute, immutable, infinite, and self-sufficing is not the numerical unit, not the indivisible point. It is the absolute universal *One* in its perfect simplicity. It is the highest degree of perfection—the ideal Beauty, the supreme Good, πρῶτον ἀγαθόν.

God therefore in his absolute state—in his first and highest Hypostasis—is neither Existence nor Thought, neither moved nor mutable: he is the simple Unity, or, as Hegel would say, the Absolute Nothing, the Immanent Negative. Our readers will perhaps scarcely be patient under this infliction of dialectical subtlety; but we beg them to remember that the absurdities of genius are

often more instructive than the discoveries of common men, and the subtleties and extravagances of the Alexandrians are fraught with lessons. If rigorous logic conducted eminent minds to conceptions which appear extravagant and sterile, they may induce in us a wholesome suspicion of the efficacy of that logic to solve the problems it is occupied with. Nor is the lesson inapplicable to our age. The present enthusiasm for German Literature and German Philosophy will of course turn the attention of many young minds to the speculations in which Germany is so rife; we are consequently more interested in Plotinus, because he agitates similar questions and affords very similar answers. The German Metaphysicians resemble Plotinus more than Plato or Aristotle: nor is the reason difficult of discovery. Plotinus, coming after all the great thinkers had asked almost every metaphysical question and given almost every possible answer, was condemned either to scepticism or to accept any consequences of his dialectics, however extreme. Philosophy was in this dilemma: either to abdicate, or to be magnificently tyrannical: it chose to be the latter. Plotinus therefore shrank from no extravagances: where Reason failed, there he called upon Faith. The Germans, coming after the secure establishment of Positive Science, found Philosophy in a similar dilemma: either to declare itself incapable, or to proclaim its despotism and infallibility: what Logic demonstrated must be absolutely true.

This faith in logic is remarkable, and may be contrasted with the Alexandrian faith in Ecstasy. Of the *possibility* of human logic not being the standard of truth the Germans have no suspicion; they are without the Greek scepticism as to the Criterium. They proceed with peaceable dogmatism to tell you that God is this, or that; to explain how the Nothing *becomes* the Existing world, to explain many other inexplicable things; and, if you stop them with the simple inquiry, How do you know this? what is your ground of certitude? they smile, allude blandly to *Vernunft*, and continue their exposition.

Plotinus was wiser, though less consequent. He said, that although Dialectics raise us to some conviction of the existence of God, we cannot speak of his nature otherwise than negatively: *ἐν ἀφαιρέσει πάντα τὰ περὶ τοῦτον λεγόμενα.* We are forced to admit his existence, though it is not correct to speak even of his existence. To say that he is superior to Existence and Thought is not to define him; it is only to distinguish him from what he is not. What he is we cannot know; it would be ridiculous to endeavour to com-

prehend him. This difference apart, there is remarkable similarity in the speculations of the Alexandrians and the modern Germans: a similarity which all will detect who are capable of detecting identity of thought under diversity of language.

To return to the Alexandrian Trinity, we see in it the Perfect Principle, the One, *τὸ ἕν ἁπλοῦν*, which generates but is ungenerated; the Principle generated by the Perfect is of all generated things the most perfect: it is therefore Intelligence: *νοῦς*. In the same way as Intelligence is *the Word* (*λόγος*) of the One and the manifestation of its power, so also the Soul is *the Word* and manifestation of the Intelligence, *οἷον καὶ ἡ ψυχὴ λόγος νοῦ*. The three Hypostases of the Deity are therefore, 1st, the Perfect, the Absolute Unity, *τὸ ἕν ἁπλοῦν*; 2nd, the First Intelligence, *τὸ νοῦν πρώτως*; 3rd, the Soul of the world.

This Trinity is very similar to the threefold nature of God in Spinoza's system. Spinoza says, that God is the infinite Existence, having two infinite Attributes: Extension and Thought. Now this Existence, which has neither Extension nor Thought, except as Attributes, although verbally differing from the Absolute Unconditioned, the One, of Plotinus, is, in point of fact, the same: it is the last abstraction which human logic can make: it is that *of which* nothing can be predicated, and yet which must be the final predicate of everything: division and subdivision, however prolonged, stop there, and admit as final the Unconditioned Unconditional Something; that which Proclus calls The Non-Being, *μὴ ὄν*, although it is not correct to call it nothing, *μηδέν*.

This conception, which it is impossible to state in words without stating gross contradictions, is the result of rigorous logic, reasoning from false premisses. The process is this: I have to discover that which is at the bottom of the mystery of existence—the great First Cause; and, to do this I must eliminate one by one everything which does not present itself as self-existing, self-sufficing, as necessarily the *first* of all things, the *ἀρχή*.

The ancients began their speculations in the same way, but with less knowledge of the conditions of inquiry. Hence Water, Air, Soul, Number, Force, were severally accepted as *Principia*. In the time of the Alexandrians something more subtle was required. They asked the same question, but they asked it with a full consciousness of the failure of their predecessors. Even Thought would not satisfy them as a *Principium;* nor were they better satisfied with abstract Existence. They said there is something beyond

Thought, something beyond Existence: there is *that which* thinks, *that which* exists. This '*that*,' this Indeterminate Ineffable, is the Principium. It is self-sufficing, self-existent; nothing can be conceived beyond it. In the old Indian hypothesis of the world being supported by an elephant, who stood on the back of a tortoise, the tortoise standing on nothing, we see a rude solution of the same problem: the mind is forced to arrest itself somewhere, and wherever it arrests itself it is forced to declare, explicitly or implicitly, that it stops at Nothing; because, as soon as it predicates anything of that at which it stops, it is forced to admit *something* beyond: if the tortoise stands on the back of some other animal, *upon what* does that other animal stand?

Human logic, when employed upon this subject, necessarily abuts upon Nothing, upon absolute Negation; the terms in which this conception is clothed may differ, but the conception remains the same: Plotinus and Hegel shake hands.

In reviewing the history of Greek speculation, from the 'Water' of Thales to the 'Absolute Negation' of Plotinus, what a reflection is forced upon us of the vanity of metaphysics! So many years of laborious inquiry, so many splendid minds engaged, and, after the lapse of ages, the inquiry remains the same, the answer only more ingeniously absurd! Was, then, all this labour vain? Were those long laborious years all wasted? Were those splendid minds all useless? No: earnest endeavour is seldom without result. Those centuries of speculation were not useless, they were the education of the human race. They taught mankind this truth at least: the Infinite cannot be known by the finite; and man, as finite, can only know phenomena. Those labours, so fruitless in their immediate object, have indirect lessons. The speculations of the Greeks preserve the same privilege as the glorious products of their art and literature; they are the models from which the speculations of posterity are reproductions. The history of modern metaphysical philosophy is but the narrative of the same struggles which agitated Greece. The same problems are revived, and the same answers offered.

§ IV. The Doctrine of Emanation.

Metaphysics propounds three questions: Has human knowledge any absolute certainty? What is the nature of God? What is the origin of the World?

Our review of the various attempts to answer these questions has ended in the Alexandrian School, which answered them as follows: 1st. Human knowledge is necessarily uncertain; but this difficulty is got over by the hypothesis of an Ecstasy, in which the soul becomes identified with the Infinite. 2nd. The Nature of God is a triple Unity—three hypostases of the One Being. 3rd. The origin of the world is the law of *Emanation*.

This third answer is of course implied in the second. God, as Unity, *is* not Existence; but he becomes Existence by the Emanation from his Unity (Intelligence), and by the second emanation from his Intelligence (Soul), and this Soul, in its manifestations, is the World.

Hitherto dualism has been the universal creed of those who admitted any distinction between the world and its creator. Jupiter organizing Chaos; the God of Anaxagoras whose force is wasted in creation; the δημιουργός of Plato who conquers and regulates Matter and Motion; the immovable Thought of Aristotle: all these creeds were dualistic; and, indeed, to escape dualism was no easy task.

If God is distinct from the World, dualism is at once assumed. If he is distinct, he must be distinct in Essence. If distinct in essence, the question of Whence came the world? is not answered; for the world must have existed contemporaneously with him.

Here lies the difficulty: either God made the world, or he did not. If he made it, whence did he make it? He could not, said logic, make it out of Nothing: for Nothing can come of Nothing; he must, therefore, have made it out of his own substance. If it is made out of his own substance, then it is identical with him: it must then have existed already in him, or he could not have produced it. But this identification of God with the world is Pantheism; and begs the question it should answer.

If he did not make it out of his own substance, he must have made it out of some substance already existing; and thus also the question still remains unanswered.

This problem was solved by the Christians and Alexandrians in a similar, though apparently different, manner. The Christians said that God created the world out of Nothing by the mere exercise of his omnipotent will; for to Omnipotence everything is possible; one thing is as easy as another. The Alexandrians said that the world was distinct from God *in act* rather than

in essence: it was the manifestation of his will, or of his intelligence.

Thus the world is God; but God is not the world. Without the necessity of two principles, the distinction is preserved between the Creator and the Created. God is not confounded with Matter; and yet philosophy is no longer oppressed with the difficulty of accounting for two eternally existing and eternally distinct principles.

Plotinus had by his Dialectics discovered the necessity of Unity as the basis of existence: he had also by the same means discovered that the Unity could not possibly remain alone: otherwise, there would never have been the Many. If the Many implies the One, the One also implies the Many. It is the property of each principle to engender that which follows it: to engender it in virtue of an ineffable power which loses nothing of itself. This power, ineffable, inexhaustible, exercises itself without stopping, from generation to generation, till it attains the limits of possibility.

By this law, which governs the world, and from which God himself cannot escape, the totality of existences, which Dialectics teach us to arrange in a proper hierarchy from God to sensible Matter, appear to us thus united in one indissoluble chain, since each being is the necessary product of that which precedes it, and the necessary producer of that which succeeds it.

If asked why Unity should ever become Multiplicity—why God should ever manifest himself in the world? the answer is ready: The One, as conceived by the Eleatics, had long been found incomplete; for a God who had no intelligence could not be perfect: as Aristotle says, a God who does not think is unworthy of respect. If, therefore, God is Intelligent, he is necessarily active: a force that engenders nothing, can that be a real force? It was, therefore, in the very nature of God a necessity for him to create the world: *ἐν τῇ φύσει ἦν τὸ ποιεῖν.*

God, therefore, is in his very essence a Creator, *ποιητής.* He is like a Sun pouring forth his rays, without losing any of its substance: *οἷον ἐκ φωτὸς, τὴν ἐξ αὐτοῦ περίλαμψιν.* All this flux—this constant change of things, this birth and death—is but the restless manifestation of a restless force. These manifestations have no absolute truth, no duration. The individual perishes, because individual: it is only the universal that endures. The individual is the finite, the perishable; the universal is the infinite,

immortal. God is the only existence: he is the real existence, of which we, and other things, are but the transitory phenomena. And yet timid ignorant man fears death! timid because ignorant. To die is to live the true life: it is to lose, indeed, sensation, passions, interests, to be free from the conditions of space and time,—to lose personality; but it is also to quit this world and to be born anew in God,—to quit this frail and pitiable individuality, to be absorbed in the being of the Infinite. To die is to live the true life. Some faint glimpses of it—some overpowering anticipations of a bliss intolerable to mortal sense, are realized in the brief moments of Ecstasy, wherein the Soul is absorbed in the Infinite, although it cannot long remain there. Those moments so exquisite yet so brief are sufficient to reveal to us the divinity, and to show us that deep embedded in our personality there is a ray of the divine source of light, a ray which is always struggling to disengage itself, and return to its source. To die is to live the true life; and Plotinus dying, answered, in his agony, to friendly questions: 'I am struggling to liberate the divinity within me.'

This mysticism is worth attention, as indicative of the march of the human mind. In many preceding thinkers we have seen a very strong tendency towards the desecration of personality. From Heraclitus to Plotinus there is a gradual advance in this direction. The Cynics and the Stoics made it a sort of philosophical basis. Plato implicitly, and sometimes explicitly, gave it his concurrence. The conviction of man's insignificance, and of the impossibility of his ever in this world ascertaining the truth, seem to have oppressed philosophers with self-contempt. To curse the bonds which bound them to ignorance, and to quit a world in which they were thus bound, were the natural consequences of their doctrines; but, linked mysteriously as we are to life—even to the life we curse—our doctrines seldom lead to suicide. In default of suicide, nothing remained but Asceticism—a moral suicide. As man could not summon courage to quit the world, he would at least endeavour to lead a life as far removed from worldly passion and worldly condition as was possible; and he would welcome death as the only true life.

CHAPTER III.

PROCLUS.

PLOTINUS attempted to unite Philosophy with Religion, attempted to solve by Faith the problems insoluble by Reason; and the result of such an attempt was necessarily mysticism. But, although the mystical element is an important one in his doctrine, he did not allow himself to be seduced into all the extravagances which naturally flowed from it. That was reserved for his successors, Iamblicus in particular, who performed miracles, and constituted himself High Priest of the Universe.

With Proclus the Alexandrian School made a final effort, and with him its defeat was entire. He was born at Constantinople, A. D. 412. He came early to Alexandria, where Olympiodorus was teaching. He passed onwards to Athens, and from Plutarch and Syrianus he learnt to comprehend the doctrines of Plato and Aristotle. Afterwards, becoming initiated into the Theurgical mysteries, he was soon made a High Priest of the Universe.

The theological tendency is still more visible in Proclus than in Plotinus. He regarded the Orphic poems and the Chaldean oracles as divine revelations, and, therefore, as the real source of philosophy, if properly interpreted; and in this allegorical interpretation consisted his whole system.

> 'The intelligible forms of ancient poets,
> The fair humanities of old religion,
> The Power, the Beauty, and the Majesty,
> That had her haunts in dale, or piny mountain,
> Or forest by slow stream, or pebbly spring,
> Or chasms and wat'ry depths; all these have vanish'd,
> They live no longer in the faith of reason!
> But still the heart doth need a language, still
> Doth the old instinct bring back the old names.
> And to yon starry world they now are gone,
> Spirits or Gods that used to share this earth
> With man as with their friend.'*

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* Coleridge, in his translation of the *Piccolomini*.

To breathe the breath of life into the nostrils of these defunct deities, to restore the beautiful Pagan creed, by interpreting its symbols in a new sense, was the aim of the whole Alexandrian School.

Proclus placed Faith above Science. It was the only faculty by which The Good, that is to say, The One, could be apprehended. 'The Philosopher,' said he, 'is not the Priest of one Religion, but of all Religions;' that is to say, he is to reconcile all modes of Belief by his interpretations. Reason is the Expositor of Faith. But Proclus made one exception: there was one Religion which he could not tolerate, which he would not interpret,—that was the Christian.

With this conception of his mission, it is easy to see that his method must be eclectic. Accordingly, in making Philosophy the expositor of Religion, he relied upon the doctrines of his predecessors without pretending to discover new ones for his purpose. Aristotle, whom he called 'the Philosopher of the understanding,' he regarded as the man whose writings formed the best introduction to the study of wisdom. In him the student learnt the use of his Reason; learnt also the forms of thought. After this preparatory study came the study of Plato, whom he called the 'Philosopher of Reason,' the sole guide to the region of Ideas, that is, of Eternal Truths. The reader will probably recognize here the distinction between Understanding and Reason, revived by Kant, and so much insisted on by Coleridge and his followers.

Plato was the idol of Proclus; and the passionate disciple thought every word of the master an oracle; he discovered everywhere some hidden and oracular meaning, interpreting the simplest recitals into sublime allegories. Thus the affection of Socrates for Alcibiades became the slender text for a whole volume of mystical exposition.

It is curious to notice the transformations of philosophy in the various schools. Socrates interpreted the inscription on the temple at Delphi, 'Know thyself,' as an exhortation to psychological and ethical study. He looked inwards, and there discovered certain truths which scepticism could not darken; and he discoursed, says his biographer, on Justice and Injustice, on things holy and things unholy.

Plato also looked inwards, hoping to find there a basis of philosophy; but his 'Know thyself' had a different signification. Man was to study himself, because, by becoming thoroughly acquainted with his mind, he would become acquainted with the eternal Ideas

of which sense awakened Reminiscence. His self-knowledge was Dialectical, rather than Ethical. The object of it was the contemplation of eternal Existence, not the regulation of our worldly acts.

The Alexandrians also interpreted the inscription; but with them the Socratic conception was completely set aside, and the Platonic conception carried to its limits. 'Know thyself,' says Proclus, in his commentary on Plato's *First Alcibiades*, 'that you may know the essence from whose source you are derived. Know the divinity that is within you, that you may know the divine One of which your soul is but a ray. Know your own mind, and you will have the key to all knowledge.' These are not the words of Proclus, but they convey the meaning of many pages of his enthusiastic dialectics.

We are struck in Proclus with the frank and decided manner in which Metaphysics is assumed to be the only possible science; we are struck with the *naïve* manner in which the fundamental error of metaphysical inquiry is laid open to view, and presented as an absolute truth. In no other ancient system is it stated so nakedly. If we desired an illustration of the futility of metaphysics we could not find a better than is afforded by Proclus, who, be it observed, only pushed the premisses of others to their rigorous conclusions.

He teaches that the hierarchy of ideas, in which there is a gradual generation from the most abstract to the most concrete, exactly corresponds with the hierarchy of existences, in which there is a constant generation from the most abstract (Unity) to the most concrete (phenomena): so that the relations which these ideas bear to each other, the laws which subordinate one to the other—in a word, the forms of the nomenclature of human conceptions—express the real causes, their action, their combinations; in fact, the whole system of the universe.*

This is frank. The objection to the metaphysician has been that he looks *inwards* to discover that which lies *without* him, hoping, in his own conceptions of that which he is seeking to know, to find the thing he seeks. We 'philosophers of the Understanding' aver that to analyze your mind is to learn the nature of your mind: nothing else. Proclus boldly assumes that to know the nature of your own mind is to know the whole universe. This is at least consistent. But one might reasonably ask how this knowledge is to be gained? not simply by looking inwards, or else all philosophers

* This is also the doctrine of Hegel.

would have gained it; not even by meditation. How then? Listen :—

'Mercury, the Messenger of Jove, reveals to us Jove's paternal will, and thus teaches us science; and, as the author of all investigation, transmits to us, his disciples, the genius of invention. The Science which descends into the soul from above is more perfect than any science obtained by investigation; that which is excited in us by other men is far less perfect. Invention is the energy of the soul. The Science which descends from above fills the soul with the influence of the higher Causes. The Gods announce it to us by their presence and by illuminations, and discover to us the order of the universe.'

Of course the Mystic who had revelations from above, dispensed with the ordinary methods of investigation; and here again we see Proclus consistent, though consistent in absurdity.

CONCLUSION OF ANCIENT PHILOSOPHY.

WITH Proclus the Alexandrian School expired; with him Philosophy ceased. Religion, and Religion only, seemed capable of affording satisfactory answers to the questions which perplexed the human race, and Philosophy was reduced to the subordinate office which the Alexandrians had consigned to the Aristotelian Logic. Philosophy became the servant of Religion, no longer reigning in its own right.

Thus was the circle of endeavour completed. With Thales, Reason separated itself from Faith; with the Alexandrians, the two were again united. The centuries between these epochs were filled with helpless struggles to overcome an insuperable difficulty.

The difference is great between the childlike question of the Ionian thinker, and the *naïve* extravagance of the Alexandrian Mystic: and yet each stands upon the same ground, and looks out upon the same troubled sea, hoping to detect a shore, ignorant that all philosophy

> ' is an arch wherethrough
> Gleams that untravelled world, whose margin fades
> For ever and for ever as we move.'

But, to the reflective student who thus sees these men, after centuries of endeavour, fixed on the self-same spot, the Alexandrian straining his eager eyes after the same object as the Ionian, and neither within the possible range of vision, there is something which would be unutterably sad, were it not corrected by the conviction that these men were fixed to one spot, because they had not discovered the only true pathway, a pathway which those who came after them securely trod.

Still, the spectacle of human failure, especially on so gigantic a scale, cannot be without some pain. So many hopes thwarted, so many great intellects wandering in error, are not to be thought of without sadness. But it bears a lesson which we hope those who have followed us thus far will not fail to read: a lesson on the vanity of Philosophy; a lesson which almost amounts to a demon-

stration of the impossibility of the human mind ever compassing those exalted objects which its speculative ingenuity suggests as worthy of its pursuit. It points to that profound remark of Auguste Comte, that there exists in all classes of our investigations a constant and necessary harmony between the extent of our real intellectual wants, and the efficient extent, actual or future, of our real knowledge.

But these great Thinkers, whose failures we have chronicled, did not live in vain. They left the great problems where they found them: but they did not leave Humanity as they found it. Metaphysics might be still a region of doubt; but the human mind, in its endeavours to explore that region, had learnt in some measure to ascertain its weakness and its force. Greek Philosophy was a failure; but Greek Inquiry had immense results. Methods had been tried and discarded; but great preparations for the real Method had been made.

Moreover Ethics had become elevated to the rank of a science. In the Pagan Religion morality consisted in obeying the particular Gods: to propitiate their favour was the only needful art. Greek Philosophy opened men's eyes to the importance of human conduct —to the importance of moral principles, which were to stand in the place of propitiations. The great merit of this is due to Socrates. He objected to propitiation as impious: he insisted upon moral conduct as alone guiding man to happiness here and hereafter.

But the Ethics of the Greeks were at the best narrow and egoistical. Morality, however exalted or comprehensive, only seemed to embrace the *individual;* it was extremely incomplete as regards the family; and had scarcely any suspicion of what we call social relations. No Greek ever attained the sublimity of such a point of view. The highest point he could attain was to conduct *himself* according to just principles; he never troubled himself with others. By the introduction of Christianity, Ethics became Social, as well as Individual.

So far advanced are we in the right direction—so earnestly are we engaged in the endeavour to perfect Social as well as Individual Ethics—that we are apt to look down upon the progress of the Greeks as trivial; but it was immense, and in the history of Humanity must ever occupy an honourable place.

Ancient Philosophy expired with Proclus. Those who came after him, although styling themselves philosophers, were in truth Religious Thinkers employing philosophical formulæ. No one

endeavoured to give a solution of the three great problems: Whence came the world? What is the nature of God? What is the nature of human knowledge? Argue, refine, divide and subdivide as they would, the Religious Thinkers only used Philosophy as a subsidiary process: for all the great problems, Faith was their only instrument.

The succeeding Epochs are usually styled the Epochs of Christian Philosophy; yet Christian Philosophy is a misnomer. A Christian may be also a Philosopher; but to talk of Christian Philosophy is an abuse of language. Christian Philosophy means Christian Metaphysics; and that means the solution of metaphysical problems upon Christian principles. Now what are Christian Principles but the Doctrines *revealed* through Christ; revealed because inaccessible to Reason; revealed and accepted by Faith, because Reason is utterly incompetent?

So that metaphysical problems, the attempted solution of which by Reason constitutes Philosophy, are solved by Faith, and yet the name of Philosophy is retained! But the very essence of Philosophy consists in reasoning, as the essence of Religion is Faith. There cannot, consequently, be a Religious Philosophy: it is a contradiction in terms. Philosophy may be occupied about the same problems as Religion; but it employs altogether different Methods, and depends on altogether different principles. Religion may, and should, call in Philosophy to its aid; but in so doing it assigns to Philosophy only the subordinate office of illustrating, reconciling, or applying its dogmas. This is not a Religious Philosophy; it is Religion *and* Philosophy, the latter stripped of its boasted prerogative of deciding for itself, and allowed only to employ itself in reconciling the decisions of Religion and of Reason.

From these remarks it is obvious that our History, being a narrative of the progress of Philosophy only, will not include any detailed account of the so-called Christian Philosophy, because that is a subject strictly belonging to the History of Religion.

Once more we are to witness the mighty struggle and the sad defeat; once more we are to watch the progress and development of that vast but ineffectual attempt which the sublime audacity of man has for centuries renewed. Great intellects and great hopes are once more to be reviewed; and the traces noted which they have left upon that Desert whose only semblance of vegetation is a mirage,—the Desert without fruit, without flower, without habitation: arid, trackless, and silent, but vast, awful, and fascinating.

To trace the footsteps of the wanderers—to follow them on their gigantic journeys—to point again the moral of

> 'Poor Humanity's afflicted will
> Struggling in vain with ruthless destiny,'

to bring home to the convictions of men the humble useful truth that

> 'Wisdom is ofttimes nearer when we stoop,
> Than when we soar,'

will be the object of our SECOND PART.

PART II.

MODERN PHILOSOPHY.

TRANSITION PERIOD.

FROM PROCLUS TO BACON.

§ I. Scholasticism.

ALTHOUGH Modern Philosophy, rigorously defined, commences with Bacon and Descartes, from whom a distinct development is traceable, such as the purpose of this History requires, we must not pass from Proclus to Bacon without at least a rapid glance at the course of speculative activity during the intervening twelve centuries. Mediæval Philosophy has been much decried and much exalted, but very little studied. So vast a subject demands a patience and erudition few can bring to it. Fortunately for me, whose knowledge of Scholasticism is limited to a superficial acquaintance with some of the works of Aquinas, Abelard, and Averroes, the nature of this History excludes any detailed examination of mediæval speculations. Consulting my own resources and the reader's interest, I find that the whole career of philosophic inquiry, from Proclus to Bacon, can be presented in three typical figures: namely, Abelard, as representing Scholasticism; Algazzali, as representing Arabian philosophy; and Giordano Bruno, as representing the philosophic struggle which overthrew the authority of Aristotle and the Church. These three thinkers I have studied more or less in their own writings; and the reader will understand, therefore, that the following sketch is wholly drawn from second-hand knowledge in all but these three instances.

With the Alexandrians, Philosophy, as we have seen, became absorbed in Religion. The Alexandrians were succeeded by the Christian Fathers, who of course made Philosophy the handmaid to Religion—*ancilla Theologiæ*. The whole philosophic effort was to mediate between the dogmas of faith and the demands of reason. Scholasticism derives its name from the schools opened by Charlemagne for the prosecution of speculative studies, which were only prosecuted in those days by the clergy, they alone having leisure or

inclination for such work. Thus did the Monasteries form the cradle of Modern Philosophy.*

As far as we can separate the philosophic from the theological element, it displays itself in three capital manifestations: 1st, The debate on Universals; 2nd, The influence of the Arabians, especially in their introduction of the works of Aristotle; and 3rd, The rebellion against Aristotle and all other authority, in the proclamation of the independence of Reason.

There was no separation at all until the ninth century, when, in the person of Scotus Erigena, Philosophy timidly claimed its privilege. And even Scotus Erigena said, 'There are not two studies, one of philosophy and one of religion; true philosophy is true religion, and true religion is true philosophy.' In the eleventh century appeared Roscellinus, who, in advocating the philosophic doctrine of Nominalism, not only separated Philosophy from Religion, but placed it in direct antagonism with the fundamental dogma of the Trinity. To understand this we must remember that in those days there was a profound and even servile submission to the double authority of the Church and the Greek Philosophers,—a submission necessarily resulting from the teaching of the Fathers, who always combined the two. The works of Greek Philosophers were, however, but scantily known through Latin translations and commentaries; but this perhaps increased the eagerness to know them; and thus all doctrine became, in fact, erudition. To interpret Aristotle was to establish philosophy. It is a common error to suppose that Aristotle at once and always reigned despotically over the philosophy of the Middle Ages. As M. Rousselot† remarks, there were two distinct characters in Aristotle then accepted: there was first the Logician, whose word was law,—*magister dixit*,—whose *Organon* was the Bible of the schools,—whose authority no one thought of questioning; and there was also the Metaphysician, who, so far from receiving the worship offered to the Logician, was persecuted, excommunicated, and burned, because his metaphysical doctrine was thought to contain the fatal heresy of the unity of

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* Victor Cousin, *Hist. de la Phil.* ii. 9ème Leçon. The various historians of Philosophy, especially Ritter and Tennemann, should be consulted; but the clearest and most readable work known to me is M. Rousselot's *Etudes sur la Philosophie dans le Moyen Age*, 3 vols. 8vo. Paris, 1840. M. Rémusat's *Abélard*, 2 vols. Paris, 1845, by its analysis of Abelard's works, gives also a very good idea of Scholastic speculation.

† *Etudes sur la Philos.* i. 173.

substance.* It was not until after Abelard, and owing to the Arabian influence, that Aristotle passed—to use M. Rémusat's happy phrase—from the consulship to the dictatorship of Philosophy.†

Plato taught Realism. He maintained the existence of Abstract Ideas, as Objects or Substances. Aristotle, on the contrary, taught that Abstract Ideas were nothing but abstractions; general *names*, not general *things*. Early Scholasticism adopted Realism; and when Roscellinus by subtle argumentation proved that genera and species were nothing more than logical constructions, general terms, *flatus vocis*, without corresponding essences, it was soon evident that he was in antagonism with the dogma of the Trinity. 'That Universal which you call Trinity cannot exist; and as the relations which unite these three divine persons do not exist, the Trinity cannot exist. There is either one God or three; if there is but one, he exists in a single person; if there are three, there are three beings separate, distinct.'

The consequence of such heresy may be foreseen. Roscellinus was summoned before the Council of Soissons, and there forced publicly to recant. He escaped to England, and perished in exile; but the seed he had sown fructified, and Nominalism afterwards became the reigning doctrine. The amount of verbal quibbling and idle distinctions employed on this famous question is only greater than that employed on other questions, because of its greater importance. No one can form an adequate idea of the frivolity and wearisome prolixity of these Schoolmen without opening one of their books; and even after having done so, it will remain incomprehensible how sane and earnest intellects could have contented themselves with such grinding of the air in metaphysic mills, unless we understand the error which misled them. The error was in mistaking logical constructions for truths, believing ideas to be the correlates of things, so that whatever was discernible in the mental combination was necessarily true of external facts. The Schoolmen analyzed the elements of speech and thought with the pertinacious eagerness now employed by chemists in analyzing the elements of bodies. This error is the fundamental error, *principium et fons*, of all metaphysical speculation; and with an ill grace do metaphysicians ridicule the follies of the Schoolmen, who only

* Jourdain, in his erudite work, *Recherches sur l'âge et l'origine des Traductions d'Aristote*, has placed this condemnation of Aristotle beyond a doubt.

† *Abélard*, i. 316.

carried to excess the metaphysical Method of *unverified Deduction*. It may be true that Scholastic philosophy was for the most part a dispute about words, but it is not for metaphysicians to cast the reproach; and the defenders of Scholasticism have an easy task when they undertake to show that beneath these verbal disputes lay the deepest problems of Ontology.

§ II. Life of Abelard.

The name of Abelard has been immortalized by association with that of a noble woman. It is because Heloise loved him, that posterity feels interested in him. M. Michelet indeed thinks that to Abelard she owes her fame: 'without his misfortunes she would have remained obscure, unheard of;' and in one sense this is true; but true it also is that, without her love, Abelard would have long ago ceased to inspire any interest; for his was essentially a shallow, selfish nature. His popularity was rapid, loud, and scandalous. He was fitted for it, lived for it. But many a greater name has faded from the memories of men; many a once noisy reputation fails to awaken a single echo in posterity. Apart from the consecration of passion and misfortune, there is little in his life to excite our sympathy. Viewed in connection with Heloise he must always interest us; viewed away from her, he presents the figure of a quick, vivacious, unscrupulous, intensely vain Frenchman. But, in several respects, he represents the philosophic struggle of the twelfth century; and in this light we may consider him.

He was born in Brittany in 1079, of a noble family, named Bérenger. The name of Abelard came to him later. His master laughingly noticed his superficial manner of passing over some studies, filled as he was with others, and said, 'When a dog is well filled, he can do no more than lick the bacon.' The word *to lick*, in the corrupt Latin of that day, was *bajare*, and *Bajolardus* became the cognomen of this 'bacon-licking student' among his comrades, which he converted into *Habelardus*, 'se vantant ainsi de posséder ce qu'on l'accusait de ne pouvoir prendre.'* In the ancient writers the name is variously spelled, as Abailardus, Abaielardus, Abaular-

* *Abélard*, par M. Charles de Rémusat, Paris, 1845, p. 13. This valuable monograph contains the fullest biography of Abelard and the best analysis of his works yet published. Indeed, before M. Cousin published the works of Abelard, in 1836, every account of the philosophy of this thinker was necessarily meagre and erroneous.

dus, Abbajalarius, Baalaurdus, Belardus, and in French as Abeillard, Abayelard, Abalard, Abaulard, Abaalary, Allebart, Abulard, Beillard, Baillard, Balard, and even Esbaillart; which variations seem to imply that the old French writers were as accurate in their spelling of proper names as their descendants are in their use of English and German names.

Abelard's father joined to his knightly accomplishments a taste for literature, as literature was then understood; and this taste became so dominant in the mind of the youth, that he renounced the career of arms altogether for that of learning. Dialectics was the great science of that day, almost rivalling in importance the Theology which it served and disturbed by turns. It was an exercise of intellectual ingenuity, for which this youth manifested surprising aptitude. He travelled through various provinces disputing with all comers, like a knight-errant of philosophy, urged thereto by the goading desire of notoriety. This love of notoriety was his curse through life. At the age of twenty he came to Paris, hoping there to find a fitting opportunity of display—an arena for his powers as a disputant. He attended the lectures of William de Champeaux, the most renowned master of disputation, to whom students flocked from all the cities of Europe. The new pupil soon excited attention. The beauty of his person, the easy grace of his manner, his marvellous aptitude for learning, and still more marvellous facility of expression, soon distinguished him from the rest. The master grew proud of his pupil, loved him through this pride, and doubtless looked on him as a successor. But it soon became evident that the pupil so quick at learning did not sit there merely to learn; he was waiting for some good opportunity of display, waiting to attack his venerable master, whose secret strength and weakness he had discovered. The opportunity came; he rose up, and in the midst of all the students provoked William de Champeaux to discussion, harassed, and finally vanquished him. Rage and astonishment agitated the students; rage and terror the master. The students were indignant because they clearly saw Abelard's motive.

Abelard dates the origin of all his woes from this occasion, when he created enmities which pursued him through life; and, with a sophistication common to such natures, he attributes the enmities to envy at his ability, instead of to the real causes, namely his inordinate vanity and selfishness. For a time indeed the rupture with his master seemed successful. Although only two-and-twenty years

of age he established a school of philosophy at Melun, which became numerously attended, and spread his name far and wide. Emboldened by success, he removed his school still nearer to Paris—to Corbeil—in order, as he frankly tells us, that he might be more importunate to his old master. But his rival was still powerful, aged in science and respect. Intense application was necessary, and in the struggle Abelard's overtasked energies gave way. He was commanded by the physicians to shut up his school, and retire into the country for repose and fresh air.

In two years he returned to Paris, and saw with delight that his reputation had not been weakened by absence, but that on the contrary his scholars were more eager than ever. His old antagonist, William de Champeaux, had renounced the world, and retired to a cloister, where he opened the school of Saint-Victor, afterwards so celebrated. His great reputation, although suffering from Abelard's attacks, drew crowds. One day, when the audience was most numerous, he was startled by the appearance of Abelard among the students, come, as he said, to learn rhetoric. William was troubled, but continued his lecture. Abelard was silent until the question of 'Universals' was brought forward, and then suddenly changing from a disciple to an antagonist, he harassed the old man with such rapidity and unexpectedness of assault that William confessed himself defeated, and retracted his opinion. That retractation was the death of his influence. His audience rapidly dwindled. No one would listen to the minor points of Dialectics from one who confessed himself beaten on the cardinal point of all. The disciples passed over to the victor. When the combat is fierce between two lordly stags, the hinds stand quietly by, watching the issue of the contest, and if their former lord and master, once followed and respected, is worsted, they all without hesitation pass over to the conqueror, and henceforth follow him. Abelard's school became acknowledged as pre-eminent; and, as if to give his triumph greater emphasis, the professor to whom William de Champeaux had resigned his chair was either so intimidated by Abelard's audacity, or so subjugated by his ability, that he offered his chair to Abelard, and ranged himself among the disciples.

Abelard was not content even with this victory. Although undisputed master in dialectics, he could not hear of any other teacher without envy. A certain Anselm taught Theology at Laon with immense success; and this was enough to trouble Abelard's repose; accordingly to Laon he went, ridiculed Anselm's style,

laughed at the puerile admiration of the scholars, and offered to surpass the master in the explanation of Scripture. The scholars first laughed, then listened, and admired. Abelard departed, having excited anarchy in the school, and anguish in the heart of the old man.

His career, at this period, was brilliant. His reputation had risen above that of every living man. His eloquence and subtlety charmed hundreds of serious students, who thronged beneath the shadows of the Cathedral in ceaseless disputation, thinking more of success in dispute than of the truths involved. M. Guizot estimates these students at not less than five thousand—of course not all at the same time. Amidst these crowds, Abelard might be seen moving with imposing haughtiness of carriage, not without the careless indolence which success had given; handsome, manly, gallant-looking, the object of incessant admiration. His songs were sung in the streets, his arguments were repeated in cloisters. The multitude reverentially made way for him, as he passed; and from behind their window-curtains peeped the curious eyes of women. His name was carried to every city in Europe. The Pope sent hearers to him. He reigned, and he reigned alone.*

It was at this period that the charms and helpless position of Heloise attracted his vanity and selfishness. He resolved to seduce her; resolved it, as he confesses, after mature deliberation. He thought she would be an easy victim; and he who had lived in abhorrence of libertinage—*scortorum immunditiam semper abhorrebam*—felt that he had now attained such a position that he might indulge himself with impunity. We are not here attributing hypothetic scoundrelism to Abelard; we are but repeating his own statements. 'I thought, too,' he adds, 'that I should the more easily gain the girl's consent, knowing as I did to how great a degree she both possessed learning and loved it.' He tells us how he 'sought an opportunity of bringing her into familiar and daily intercourse with me, and so drawing her the more easily to consent to my wishes. With this view I made a proposal to her uncle, through certain of his friends, that he should receive me as an inmate of his house, which was very near to my school, on whatever terms of remuneration he chose; alleging as my reason that I found the care of a household an impediment to study, and its

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* 'Cum jam me solum in mundo superesse philosophum æstimarem.'—*Epist.* i. p. 9.

expense too burdensome.' The uncle, Fulbert, was prompted by avarice, and the prospect of gaining instruction for his niece, to consent. He committed her entirely to Abelard's charge, 'in order that whenever I should be at leisure from the school, whether by day or by night, I might take the trouble of instructing her; and should I find her negligent, use forcible compulsion. Hereupon I wondered at the man's excessive simplicity, with no less amazement than if I had beheld him entrust a lamb to the care of a famishing wolf; for in thus placing the girl in my hands for me not only to teach, but to use forcible coercion, what did he do but give full liberty to my desires, and offer the opportunity, even had it not been sought, seeing that, should enticement fail, I might use threats and stripes in order to subdue her?'*

The crude brutality of this confession would induce us to suppose it was a specimen of that strange illusion which often makes reflective and analytic minds believe that their enthusiasms and passions were calculations, had we not sufficient evidence, throughout Abelard's life, of his intense selfishness and voracious vanity. Whatever the motive, the incident is curious; history has no other such example of passionate devotion filling the mind of a woman for a dialectician. It was dialectics he taught her; since he could teach her nothing else. She was a much better scholar than he; in many respects better read. She was perfect mistress of Latin, and knew enough Greek and Hebrew to form the basis of her future proficiency. He knew nothing of Greek or Hebrew, although all his biographers, except M. Rémusat, assume that he knew them both; M. Michelet even asserting that he was the only man who did then know them.† In the study of arid dialectics, then, must we imagine Abelard and Heloise thrown together; and, in the daily communion of their minds, passion ripened, steeped in that vague, dream-like, but intense delight, produced by the contact of great intelligences; and thus, as the Spanish translator of her letters says, 'buscando siempre con pretexto del estudio los parages mas

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* See *Epist.* i.

† He knew a few terms current in the theological literature of the day, but had he known more, his ostentatious vanity would have exhibited the knowledge on all occasions. He expressly declares, moreover, that he was forced to read Greek authors in Latin versions. See Cousin's edition of the *Œuvres Inédites*, p. 43; also *Dialectica*, p. 200, where the non-existence of Latin versions is given as the reason of his ignorance of what Aristotle says in his *Physics* and *Metaphysics*.

retirados'—they sought in the still air and countenance of delightful studies a solitude more exquisite than any society. 'The books were open before us,' says Abelard, 'but we talked more of love than philosophy, and kisses were more frequent than sentences.'*

In spite of the prudential necessity for keeping this intrigue secret, Abelard's truly French vanity overcame his prudence. He had written love-songs to Heloise; and, with the egotism of a bad poet and indelicate lover, he was anxious for these songs to be read by other eyes besides those for whom they were composed; anxious that other men should know his conquest. His songs were soon bandied about the streets. All Paris was in the secret of his intrigue. That which a delicate lover, out of delicacy, and a sensible lover, out of prudence, would have hidden from the world, this coxcomb suffered to be profaned by being bawled from idle and indifferent mouths.†

At length even Fulbert became aware of what was passing under his roof. A separation took place; but the lovers continued to meet in secret. Heloise soon found herself pregnant, and Abelard arranged for her an escape to Brittany, where she resided with his sister, and gave birth to a son. When Fulbert heard of her flight, he was frantic with rage. Abelard came cringing to him, imploring pardon, recalling to him how the greatest men had been cast down by women, accused himself of treachery, and offered the reparation of marriage provided it were kept secret; because his marriage, if made known, would be an obstacle to his rising in the Church, and the mitre already glimmered before his ambitious eyes. Fulbert consented. But Heloise, with womanly self-abnegation, would not consent. She would not rob the world of its greatest luminary. 'I should hate this marriage,' she exclaimed, 'because it would be an opprobrium and a calamity.' She recalled to Abelard various passages in Scripture and ancient writers, in which wives are accursed, pointing out to him how impossible it

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* *Epist.* i. p. 11. He adds, with his usual crudity: 'Et sæpius ad sinus quam ad libros reducebantur manus.' Madame Guizot excellently indicates the distinction between his sensual descriptions and the chaster, though more passionate, language of Heloise: '*elle rappelle, mais ne détaille point.*'

† That this vanity and indelicacy are eminently French, though unhappily not exclusively French, will be admitted by all who are conversant with the life and literature of that remarkable people. It had not escaped the piercing gaze and healthy instincts of Molière, who has an admirable passage on this national peculiarity: see Arnolphe's monologue, act iii. scene iii. of *L'Ecole des Femmes.*

would be for him to consecrate himself to philosophy unless he were free; how could he study amid the noises of children and domestic troubles of a household? how much more honourable it would be for her to sacrifice herself to him! She would be his concubine. The more she humiliated herself for him, the greater would be her claims upon his love; and thus she would be no obstacle to his advancement, no impediment to the free development of his genius.

'I call God to witness,' she wrote many years afterwards, 'that if Augustus, the emperor of the world, had deemed me worthy of his hand, and would have given me the universe for a throne, the name of your concubine would have been more glorious to me than that of his empress: *carius mihi et dignius videretur tua dici meretrix quam illius imperatrix.*'

Gladly would Abelard have profited by this sublime passion; but he was a coward, and his heart trembled before Fulbert. He therefore endeavoured to answer her arguments; and she, finding that his resolution was fixed—a resolution which he very characteristically calls a bit of stupidity, *meam stultitiam*—burst into tears, and consented to the marriage, which was performed with all secrecy. Fulbert and his servants, however, in violation of their oath, divulged the secret. Whereupon Heloise boldly denied that she was married. The scandal became great; but she persisted in her denials, and Fulbert drove her from the house with reproaches. Abelard removed her to the nunnery of Argenteuil, where she assumed the monastic dress, though without taking the veil. Abelard furtively visited her.* Meanwhile Fulbert's suspicions were roused, lest this seclusion in the nunnery should be but the first step to her taking the veil, and so ridding Abelard of all impediment. Those were violent and brutal times, but the vengeance of Fulbert startled even the Paris of those days with horror. With his friends and accomplices, he surprised Abelard sleeping, and there inflicted that atrocious mutilation, which Origen in a moment of religious frenzy inflicted on himself.

In shame and anguish Abelard sought the refuge of a cloister. He became a monk. But the intense selfishness of the man would not permit him to renounce the world without also forcing Heloise to renounce it. Obedient to his commands, she took the veil;

* He adds 'Nosti . . . quid ibi tecum mea libidinis egerit intemperantia in quadam etiam parte ipsius refectorii. Nosti id impudentissimè tunc actum esse in tam reverendo loco et summæ Virgini consecrato.'—*Epist.* v. p. 69

thus once again sacrificing herself to him whom she had accepted as a husband with unselfish regret, and whom she abandoned in trembling, to devote herself henceforth without hope, without faith, without love, to her divine husband.

The gates of the convent closed for ever on that noble woman whose story continues one of pure heroism to the last; but we cannot pause to narrate it here. With her disappearance, the great interest in Abelard disappears; we shall not therefore detail the various episodes of his subsequent career, taken up for the most part with quarrels—first with the monks, whose dissoluteness he reproved, next with theologians, whose hatred he roused by the 'heresy' of reasoning. He was condemned publicly to retract; he was persecuted as a heretic; he had ventured to introduce Rationalism,—or the explanation of the dogmas of Faith by Reason,—and he suffered, as men always suffer for novelties of doctrine. He founded the convent of Paraclete, of which Heloise was the first abbess, and on the 21st of April, 1142, he expired, aged sixty-three. 'Il vécut dans l'angoisse et mourut dans l'humiliation,' says M. de Rémusat, 'mais il eut de la gloire et il fut aimé.'

§ III. Philosophy of Abelard.

It would not be difficult to fill a volume with the exposition of Abelard's philosophy; indeed, in M. de Rémusat's work a volume and a quarter are devoted to the subject without exhausting it. But the nature of this History, and the necessities of space, equally force us to be very brief. Abelard's contributions to the development of speculation may all be reduced to two points: the question of Universals, and the systematic introduction of Reason as an independent element in theology, capable not only of explaining dogmas, but of giving dogmas of its own.

'The nature of genera and species has formed perhaps the longest and most animated, and certainly the most abstract controversy which has ever agitated the human mind,' says M. de Rémusat, who adds, 'that it is also one which now seems the least likely to have interested men so deeply.' The same will, probably, one day be said of the question of Immaterialism and Materialism, a logomachy as great, as animated, and as remote from all practical results, as that of Universals, but which, from its supposed relation to religious truths, has been made the great controversy of the schools. In our day there are few speculators who do not believe

that important religious principles are indissolubly connected with the doctrine of an immaterial principle superadded to, and in nowise identical with, the brain; and this in spite of the indisputable fact that the early Christian Fathers maintained the materiality not only of the soul, but of God himself;* in spite also of the many pious moderns of unimpeachable orthodoxy who held, and hold, the doctrines stigmatized as Materialism, and who think with Occam: 'Experimur enim quod intelligimus et volumus et nolumus, et similes actus in nobis habemus; *sed quod illa sint e formâ immateriali et incorruptibili non experimur*, et omnis ratio ad hujus probationem assumpta assumit aliquod dubium.'†

Although, therefore, the intense feeling stirred by the dispute respecting Universals appears incomprehensible to us, who consider the dispute to have been a logomachy, for the most part; we may render intelligible to ourselves how such a dispute came to be so important, by considering the importance now attached to the dispute respecting an 'immaterial principle.' Idle or important, it was *the* dispute of the Middle Ages; and M. Cousin is guilty of no exaggeration in saying 'the whole Scholastic philosophy issued out of a phrase in Porphyry as interpreted by Boethius.' Here is the passage: 'Intentio Porphyrii est in hoc opere facilem intellectum ad prædicamenta præparare, tractando de quinque rebus vel vocibus, genere scilicet, specie, differentia, proprio et accidenti; quorum cognitio valet ad prædicamentorum cognitionem.'‡ In the phrase *rebus vel vocibus* he was understood to signify that things and words were mutually convertible; to discourse of one or of the other was indifferent; and the question turned upon this point: Does the word Genus, or the word Species, represent an actual *something*, existing externally,—or is it a mere *name* which designates a certain collection of individuals? The former opinion was held until Roscellinus attacked it, and brought forward the heresy

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* Tertullian wrote a work expressly to combat the immaterialism of Plato and Aristotle. One sentence will suffice to bear out what is said above respecting God: '*Quis autem negabit Deum esse corpus, etsi Deus spiritus?*' M. Guizot, in his *Leçons sur l'Hist. de la Civilisation en France*, and M. Rousselot's *Etudes sur la Philos. dans le Moyen Age*, will furnish the reader with other examples.

† We borrow the passage from Rousselot's *Etudes*, iii. 256.

‡ 'The object of Porphyry in this work is to prepare the mind for the easy understanding of the Predicaments, by treating of the five things or words, namely, genus, species, difference, property, and accident; the knowledge of which leads to the knowledge of the Predicaments.'

of Nominalism with such force of argument that, although the heresy was condemned, the logic forced its way; and Abelard, when he attacked the doctrine of Realism, taught by William de Champeaux, borrowed so much of the Nominalist argument that until quite recently he has been called a Nominalist himself. That he was not a pure Nominalist is now clear; and M. Rousselot has even made out an ingenious case for him as a Realist. But, in truth, he was entirely neither; he was something of both; he was a Conceptualist. The peculiarity of his doctrine consists in the distinction of Matter and Form applied to genus and species. 'Every individual,' he says in a very explicit passage of the treatise *De Generibus et Speciebus*, printed by M. Cousin, 'is composed of matter and form, *i. e.* Socrates from the matter of Man, and the form of Socratity; so Plato is of the same matter, namely that of man, but of different form, namely that of Platonity; and so of all other individual men. And just as the Socratity which formally constitutes Socrates is nowhere but in Socrates, so the essence of man which sustains Socratity in Socrates, is nowhere but in Socrates. The same of all other individuals. By species therefore I mean, not that essence of man which alone is in Socrates, or in any other individual, but, the whole collection which is formed of all the individuals of the same nature. This whole collection, although essentially multiple, by the Authorities is named one Species, one Universal, one Nature; just as a nation, although composed of many persons, is called one. Thus each particular essence of the collection called Humanity is composed of matter and form, namely the animal is matter, the form is however not one, but many, *i. e.* rationality, morality, bipedality, and all the other substantial attributes. And that which is said of man, namely that the part of man which sustains Socratity is not essentially the part which sustains Platonity, is true also of the Animal.* For the Animal which in me is the form of Humanity, cannot essentially be elsewhere; but there is in it something not different from the separate elements of individual animals. Hence, I call Genus the multitude of animal essences which sustain the individual species of Animal: the multitude diversified by that which forms Species. For this

* We must subjoin the original: 'Et sicut de homine dictum est, scilicet quod illud hominis quod sustinet Socratitatem, illud essentialiter non sustinet Platonitatem, ita de animali. Nam illud animal quod formam humanitatis quæ in me est, sustinet, illud essentialiter alibi non est, sed illi non differens est et singulis materiis singulorum individuorum animalis.'

latter is only composed by a collection of essences which sustain individual forms; Genus, on the contrary, is composed by a collection of the substantial differences of different Species. . . . The particular essence which forms the Genus Animal, results from a certain matter, essence of body, and substantial forms, animation and sensibility, which can only exist essentially there, although they take indifferently the forms of all species of body. This union of essences produces the universal named Animal Nature.'*

This passage will give the reader a taste of Abelard's quality when he is least tiresome; from it we see clearly enough the kind of reality which he attributed to general terms, in opposition to the Nominalists, who taught that terms were *only* terms; he said they were terms which expressed *conceptions,* and these conceptions were based on realities: as when a multitude is conceived under the form of unity, linking together all the actual resemblances existing between the individuals. This looks so very like Realism, that M. Rousselot may be pardoned for having argued at great length the paradoxical thesis of Abelard's being a Realist; but a closer examination of the treatise from which we have just cited a long passage, proves that Abelard did not deceive himself in maintaining the Realist doctrine to be erroneous from his point of view. He maintained that genus and species were not general essences existing essentially and integrally in the individuals, whose identity admitted of no other diversity than that of individual *modes,* or accidents; which was the doctrine of Realism; for, if this doctrine were true, the subject of these accidents, the substance of these modes being identical, every individual would possess the same substance, and humanity would only be one man; thus Socrates being at Athens, humanity would be at Athens; but Plato being at Thebes, humanity must then either not be at Athens, or Plato must not be humanity.

Let us quit here the question of Universals, to consider the second characteristic of Abelard's philosophy. It was he who gave the form if not the subject-matter of Scholasticism. It was he who brought Logic as an independent power into the arena of theological debate; a heresy which drew the terrors of the Church upon him: *Ponit in cœlum os suum et scrutatur alta Dei,* said St. Bernard, writing to the Pope; and the same St. Bernard let fall the terrible accusation: '*transgreditur fines quos posuerunt patres nos-*

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* *De Generibus et Speciebus,* p. 524.

tri—he has gone beyond the limits set by our forefathers!'—in all ages, in all nations, a mark of reprobation.

Supported, as he thought, by thousands of partisans, Abelard assumed an attitude of offence, almost of disdain. Unconscious of his real danger, he published the substance of his Lectures in a work called *Introductio ad Theologiam,* in which he undertook to demonstrate by Reason the dogmas of Faith, and promulgated the then audacious opinion, that all dogmas should be presented under a rational form. That this was very far from being acceptable, may be read not only in his condemnation, but also in the passage of his *Dialectica,* where he says that his rivals declared it not permissible in a Christian to treat even of Dialectics, because Dialectics was not only incapable of instructing any one in the faith, but disturbed and destroyed faith by the complication of its arguments.*

This commencement, feeble though it may have been, marks a new epoch in the development of speculation. The struggle of Reason against Authority, which began with Abelard, has not yet terminated. 'My disciples,' he says in his Introduction, 'asked me for arguments drawn from philosophy such as reason demanded, begging me to instruct them that they might understand and not merely repeat what was taught them; since no one can believe anything until he has first understood it; and it is ridiculous to preach to others what neither teacher nor pupil understand.'

Not content with this revolutionary principle, Abelard further 'transgressed the limits of his forefathers' by the composition of the treatise *Sic et Non,*† the object of which was to cite the passages of Scripture and the Fathers *pro* and *con.* upon every important topic: this collocation of contradictory statements given by the highest possible authorities was meant, as Abelard distinctly informs us, to train the mind to vigorous and healthy doubt, in fulfilment of the injunction 'Seek, and ye shall find; knock, and it shall be opened unto you.' 'Dubitando enim ad inquisitionem venimus; inquirendo veritatem percipimus; juxta quod et Veritas ipsa *Quærite,* inquit, *invenietis; pulsate, et aperietur vobis.*'‡ Whatever his intention may have been, the result of such a work was

* *Dialectica,* p. 434.

† It is printed in Cousin's edition, but with omissions. The entire work was published in Germany, 1841, under this title: *Petri Abaelardi Sic et Non; primum integrum ediderunt E. L. Henke et G. S. Lindenkohl.*

‡ Page 17 of the edition just named.

clearly foreseen by theological teachers, who regarded doubt as damnable, and would not tolerate it under the plausible aspects of intellectual gymnastics, or the love of seeking for truth. But theologians were unable to arrest the development of speculation. Doubt began; disputation waxed stronger; logic played like lambent flame around the most sacred subjects; Scholasticism entered every city in Europe, and filled it with subtle disputants.

During the centuries which succeeded, the question of Nominalism was constantly in debate; and beside it many others so remote, and, to modern apprehensions, so frivolous, that few historians boast of more than superficial acquaintance with mediæval philosophy, and few mention it without scorn. To name but one topic, what does the reader think of a debate *utrum Deus intelligat omnia alia a se per ideas eorum, an aliter?* What does he think of men wasting their energies in trying to convince each other of the true process by which God conceived ideas—discussing, with ardour and unmisgiving ingenuity, topics which are necessarily beyond all possible demonstration? Nevertheless, absurd as such discussions were, they have found, even in modern times, legitimate successors; and the laborious futility of the Schoolmen has been rivalled by the laborious futility of the German metaphysicians.

We are not here to follow step by step the long course of mediæval speculation, but may pass at once to the Arabian Philosophy as illustrated in Algazzāli.

§ III. Algazzāli.

In our ignorance of Arabian history, it would be presumptuous to assert that, until the Greeks became known to them, the Arabs had no philosophy at all of their own; but whatever they may have had, we are only repeating their own avowal in asserting, that after their acquaintance with the Grecian systems, all philosophical energy was devoted to the mastery and development of those systems. The history of their philosophy is divided into two parts: the first comprising the period of ancient thinkers, the Greeks; the second comprising the efforts of the Mussulman schools. The Greek schools were divided into two series, those which preceded and those which succeeded Aristotle.* In the first series there is scarcely a name familiar to our ears which was not familiar to

* Schmölders, *Essai sur les Ecoles Philosophiques chez les Arabes*, p. 96.

the Arabian philosophers, Orpheus and Homer included. The Seven Sages are constantly alluded to. Thales, Anaximenes, Heraclitus, in short all the great thinkers, are expounded and commented on, not, according to M. Schmölders, with any historical or critical accuracy, but at any rate sufficiently to show their acquaintance with Greek books. In the series succeeding Aristotle they are more at home. They translated every work they could procure, and studied with servile ingenuity to appropriate all the doctrines of the Stagirite. Thus it is that Arabian Philosophy lies *beside* the sphere of European development; although the Arabians played an important part in the development of European culture during the Middle Ages, and Averroes and Avicenna were long regarded as *magistri*, no sooner did Europe possess the originals from which the Arabs learned, than they neglected these interpreters, and interpreted for themselves.

The work which will form the basis of the present Section is one which has the attraction of being entirely *original*,—the history of a mind developing amid Arabian influences, and not the mere reflex of Grecian thought. It is probably owing to the originality of this treatise that it was never translated during the Middle Ages, the translators of those days caring only for Greek Philosophy; and thus, in spite of the high reputation of Algazzāli, the work was a closed book to all but Arabian scholars until 1842, when a learned German reprinted it with a translation into French.*

Algazzāli, the Light of Islam and Pillar of the Mosque, who under the names of Gazzali, Ghazail, and Algazel is frequently mentioned by writers on Arabian Philosophy, and was at one time made familiar to Europe by the attacks of his adversary Averroes, was born in the city of Tous, A. D. 1508. He was named Aboû Hâmed Mohammed, and his father was a dealer in cotton-thread (*gazzāl*), from whence he drew his name. Losing his father in early life, he was confided to the care of a Soufi. The nearest approach to what is meant by a Soufi is what we mean by Mystic. The influence of this Soufi was great. No sooner had the youth finished his studies, than he was appointed professor of theology at Bagdad, where his eloquence achieved such splendid success that all the Imams became his eager partisans. So great was the admi-

* *Essai sur les Ecoles Philosophiques chez les Arabes.* Par M. Schmölders. Paris, 1842. From my notice of this work in the *Edinburgh Review*, April 1847, I have incorporated many passages in the present Section.

ration he inspired, that the Mussulmen sometimes said, 'If all Islam were destroyed, it would be but a slight loss, provided Algazzāli's work on the "Revivification of the Sciences of Religion" were preserved.' It is this work which M. Schmölders has translated. It bears so remarkable a resemblance to the *Discours sur la Méthode* of Descartes, that had any translation of it existed in the days of Descartes, every one would have cried out against the plagiarism.

Like Descartes, he begins with describing how he had in vain interrogated every sect for an answer to the mysterious problems which 'disturbed him with a sense of things unknown;' and how he finally resolved to discard all authority, and detach himself from the opinions which had been instilled into him during the unsuspecting years of childhood. 'I said to myself,' he proceeds, 'My aim is simply to know the truth of things; consequently it is indispensable for me to ascertain what is *knowledge*. Now, it was evident to me that *certain knowledge* must be that which explains the object to be known in such a manner that no doubt can remain, so that in future all error and conjecture respecting it must be impossible. Not only would the understanding then need no efforts to be convinced of certitude, but security against error is in such close connection with knowledge, that even were an apparent proof of its falsehood to be brought forward it would cause no doubt, because no suspicion of error would be possible. Thus, when I have acknowledged ten to be more than three, if any one were to say, "On the contrary, three is more than ten; and to prove the truth of my assertion, I will change this rod into a serpent;" and if he *were* to change it, my conviction of his error would remain unshaken. His manœuvre would only produce in me admiration for his ability. I should not doubt my own knowledge.

'Then was I convinced that knowledge which I did not possess in this manner, and respecting which I had not this certainty, could inspire me with neither confidence nor assurance; and no knowledge without assurance deserves the name of knowledge.

'Having examined the state of my own knowledge, I found it divested of all that could be said to have these qualities, unless perceptions of the senses and irrefragable principles were to be considered such. I then said to myself, Now having fallen into this despair, the only hope remaining of acquiring incontestable convictions is by the perception of the senses and by necessary truths. *Their* evidence seemed to me indubitable. I began however to

examine the objects of sensation and speculation, to see if they could possibly admit of doubt. Then doubts crowded upon me in such numbers that my incertitude became complete. Whence results the confidence I have in sensible things? The strongest of all our senses is sight; and yet, looking at a shadow and perceiving it to be fixed and immovable, we judge it to be deprived of movement; nevertheless experience teaches us that, when we return to the same place an hour after, the shadow is displaced; for it does not vanish suddenly, but gradually, little by little, so as never to be at rest. If we look at the stars, they seem as small as money pieces; but mathematical proofs convince us they are larger than the earth. These and other things are judged by the senses, but rejected by reason as false. I abandoned the senses, therefore, having seen all my confidence in their truth shaken.

'Perhaps, said I, there is no assurance but in the notions of Reason: that is to say, first principles, *e. g.* ten is more than three; the same thing cannot have been created and yet have existed from all eternity; to exist and not to exist at the same time is impossible.

'Upon this the senses replied: What assurance have you that your confidence in Reason is not of the same nature as your confidence in us? When you relied on us, Reason stepped in and gave us the lie; had not Reason been there, you would have continued to rely on us. Well, may there not exist some other judge superior to Reason, who, if he appeared, would refute the judgments of Reason in the same way that Reason refuted us? The non-appearance of such a judge is no proof of his non-existence.'

These sceptical arguments Algazzāli borrowed from the Grecian sceptics, and having borrowed them, he likewise borrowed from Grecian mystics, of the Alexandrian school, the means of escape from scepticism. He looked upon life as a dream.

'I strove in vain to answer the objections. And my difficulties increased when I came to reflect upon sleep. I said to myself, During sleep you give to visions a reality and consistence, and you have no suspicion of their untruth. On awakening you are made aware that they were nothing but visions. What assurance have you that all you feel and know when awake does actually exist? It is all true as respects your condition at that moment; but it is nevertheless possible that another condition should present itself which should be to your awakened state that which your awakened state now is to your sleep; so that in respect to this higher condition your waking is but sleep.'

If such a superior condition be granted, Algazzāli asks whether we can ever attain to participation in it. He suspects that the *Ecstasy* described by the Soufis must be the very condition. But he finds himself philosophically unable to escape the consequences of scepticism: the sceptical arguments could only be refuted by demonstrations; but demonstrations themselves must be founded on first principles, if *they* are uncertain no demonstration can be certain.

'I was thus forced to return to the admission of intellectual notions as the basis of all certitude. This however was *not by systematic reasoning and accumulation of proofs, but by a flash of light which God sent into my soul.* For whoever imagines that *truth can only be rendered evident by proofs,* places narrow limits to the wide compassion of the Creator.'

Thus we see Algazzāli eluding scepticism just as the Alexandrians eluded it, taking refuge in faith. He then cast his eyes on the various sects of the faithful, whom he ranged under four classes.

I. The *Dogmatists:* those who ground their doctrine wholly upon reason.

II. The *Bastînîs,* or *Allegorists:* those who receive their doctrine from an Imam, and believe themselves sole possessors of truth.

III. The *Philosophers:* those who call themselves masters of Logic and Demonstration.

IV. The *Soufis:* those who claim an *immediate intuition,* by which they perceive the real manifestations of truth as ordinary men perceive material phenomena.

These schools he resolved thoroughly to question. In the writings of the Dogmatists he acknowledged that their aim was realized—but their aim was not his aim: 'Their aim,' he says, 'is the preservation of the Faith from the alterations introduced by heretics.' But his object was philosophical, not theological; so he turned from the Dogmatists to the Philosophers, studying their works with intense ardour, convinced that he could not refute them until he had thoroughly understood them. He did refute them, entirely to his satisfaction;* and having done so, turned to the Soufis, in whose writings he found a doctrine which required the union of action with speculation, in which virtue was a guide to knowledge. The aim of the Soufis was to free the mind from earthly considera-

* In the ninth volume of the works of Averroes there is a treatise by Algazzāli, *Destructio Philosophorum,* which contains his refutation of the philosophical schools.

tions, to purify it from all passions, to leave it only God as an object of meditation. The highest truths were not to be reached by *study*, but by *transport*—by a transformation of the soul during *ecstasy*. There is the same difference between this higher order of truth and ordinary science, as between being healthy and knowing the definition of health. To reach this state it was necessary first to purify the soul from all earthly desires, to extirpate from it all attachment to the world, and humbly direct the thoughts to our eternal home.

'Reflecting on my situation, I found myself bound to this world by a thousand ties, temptations assailing me on all sides. I then examined my actions. The best were those relating to instruction and education; and even there I saw myself given up to unimportant sciences, all useless in another world. Reflecting on the aim of my teaching, I found it was not pure in the sight of the Lord. I saw that all my efforts were directed towards the acquisition of glory to myself.'

Thus did Philosophy lead him to a speculative Asceticism, which calamity was shortly afterwards to transform into practical Asceticism. One day, as he was about to lecture to a throng of admiring auditors, his tongue refused utterance: he was dumb. This seemed to him a visitation of God, a rebuke to his vanity, which deeply afflicted him. He lost his appetite; he was fast sinking; physicians declared his recovery hopeless, unless he could shake off the sadness which depressed him. He sought refuge in contemplation of the Deity.

'Having distributed my wealth, I left Bagdad and retired into Syria, where I remained two years in solitary struggle with my soul, combating my passions and exercising myself in the purification of my heart, and in preparation for the other world.'

He visited Jerusalem, and made a pilgrimage to Mecca, but at length returned to Bagdad, urged thereto by 'private affairs' and the requests of his children, as he says, but more probably urged thereto by his sense of failure, for he confesses not to have reached the *ecstatic* stage. Occasional glimpses were all he could attain, isolated moments of exaltation passing quickly away.

'Nevertheless I did not despair of finally attaining this state. Every time that any accident turned me from it, I endeavoured quickly to re-enter it. In this condition I remained ten years. In my solitude there were revelations made to me which it is impossible for me to describe, or even indicate. Enough if, for the reader's profit, I declare that the conviction was forced upon me

that the Soufis indubitably walked in the true paths of salvation. Their way of life is the most beautiful, and their morals the purest that can be conceived.'

The first condition of Soufi purification is, that the novice purge his heart of all that is not God. Prayers are the means. The object is *absorption in the Deity*.

'From the very first, Soufis have such astonishing revelations that they are enabled, while waking, to see visions of angels and the souls of the prophets; they hear their voices, and receive their favours. Afterwards a transport exalts them beyond the mere perception of forms, to a degree which exceeds all expression, and concerning which we cannot speak without employing language that would sound blasphemous. In fact, some have gone so far as to imagine themselves to be *amalgamated with God*, others *identified with him*, and others to be *associated* with him.* All these are sinful.'

Algazzāli refuses to enter more minutely into this subject; he contents himself with the assertion that whoso knows not Ecstasy knows prophetism only by name. And what is *Prophetism?* The fourth stage in intellectual development. The first, or infantile stage, is that of pure Sensation; the second, which begins at the age of seven, is that of Understanding; the third is Reason, by means of which the intellect perceives the necessary, the possible, the absolute, and all those higher objects which transcend the Understanding.† After this comes the fourth stage, when another eye is opened by which man perceives things hidden from others—perceives all that will be—perceives things that escape the perceptions of Reason, as the objects of Reason escape the Understanding, and as the objects of Understanding escape the sensitive faculty. This is Prophetism. Algazzāli undertakes to prove the existence of this faculty:—

'Doubts respecting Prophetism must refer either to its possibility or its reality. To prove its possibility it is only necessary to prove that it belongs to the category of objects which cannot be regarded as the products of intelligence: such, for example, as Astronomy or Medicine. For whoso studies these sciences is aware that they cannot be comprehended except by Divine inspiration, with the

* How characteristic this is of mysticism in all ages may be seen in the delightful *Hours with the Mystics*, by Mr. R. A. Vaughan.

† Kant's three psychological elements, *Sinnlichkeit*, *Verstand*, *Vernunft*, are here anticipated.

assistance of God, and not by experience. Since there are astronomical indications which only appear once in a thousand years, how could they be known by experience? From this argument it is evident that it is very possible to perceive things which the intelligence cannot conceive. And this is precisely one of the properties of Prophetism, which has a myriad other properties; but these others are only perceptible during ecstasy by those who lead the life of the Soufis.'

We are now in a position to judge of Soufism, which was not, strictly speaking, a Philosophy, nor was it a Religion. No Mussulman, according to M. Schmölders, ever regarded it as either. It was simply a rule of life, carried into practice by a body of men, similar to what in Europe would have been a monastic order. The aim of Algazzāli's treatise was something more than the mere inculcation of Soufism, it was the endeavour to supply a *philosophical basis* for the rule of life; in other words, an attempt to reconcile Religion with Philosophy, or Philosophy with Religion; precisely analogous to that attempt which constitutes the whole philosophic activity of Scholasticism. There were two great epochs in the intellectual development of the Arabians: the preaching of Mahomet, and the conquest of Alexandria: the one gave them a Religion, the other gave them a Philosophy. The doctrines of the Koran were blended with those of the Neo-Platonists, and the result was that system of speculation known as Arabian Philosophy; a system different in its details, but similar in spirit and purpose to that known as Scholasticism, which blended the doctrines of Christianity with those of Grecian speculators.

§ IV. Revival of Learning.

However similar in spirit, Scholasticism could of course only accept, from the Arabian Philosophy, that portion which was derived from Greece, since Christianity necessarily replaced the Mahometan element. Europe was indebted to the Arabs for most of the principal works of Aristotle; and although it has long been the cue of historians and critics to speak contemptuously of the Arabian translations—a contempt perfectly impartial, seeing that the critics could read no Arabic—we are assured by M. Schmölders that these translations were very careful, and critical. Through the schools of Cordoba, Seville, Toledo, Valencia, Murcia, and Almeria, the Greek writers penetrated everywhere.

With the revival of learning, after the fall of Constantinople, came fresh streams of Grecian influence. The works of Plato became generally known; under Marsilio Ficino—to whom we owe the Latin translation of Plato*—a school of Platonists was formed, which continued to divide, with the school of Aristotle, the supremacy of Europe, under new forms, as before it had divided it under the form of Realism. The effect of this influx of Grecian influence, at a period when Philosophy was just emancipating itself from the absolute authority of the Church, and proclaiming the divine right of Reason to be heard on all rational topics, was to transfer the allegiance from the Church to Antiquity. To have suddenly cast off all authority would have been too violent a change; and it may on the whole be regarded as fortunate for human development that Philosophy did so blindly accept the new authority—one altogether *human*, yet without deep roots in the life of the nation, without any external constituted power, consequently very liable to disunion and disruption, and certain to give way before the necessary insurgence of Reason insisting on freedom.

There is something profoundly significant in the principle of Authority, when not exercised despotically, and something essentially anarchical in the principle of Liberty of Thought, when not restrained within due limits. Both Authority and Liberty are necessary principles, which only in misuse become paralyzing or destructive. It may be made perfectly clear to the rational mind that there can be no such thing as 'liberty of private judgment' in Mathematics, Astronomy, Physics, Chemistry, or any other science the truths of which have been established; the person ignorant of these sciences does, and must, take upon trust the statements made by those who are authorities; he cannot indulge his 'private judgment' on the matter, without forfeiting the respect of those who hear him. Does this mean that all men are bound blindly to accept what astronomers and chemists assert? No; to require such submission of the judgment, is to pass beyond the principle of Authority, and assume that of Despotism. The principle of Liberty assures entire freedom to intellectual activity, warrants the control of Authority, incites men to control it by submitting its positions to those elementary tests by which it was itself originally constituted. If I have made a series of experiments which have led to the disclosure of an

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* In many respects our best guide to Plato's meaning where he is most obscure. It is printed in Bekker's edition.

important truth, your liberty of private judgment is mere anarchy if it assert itself in denying the truth simply out of your own preconceptions; but it is healthy freedom if it assert itself in denying the truth after having submitted my authority to its original tests (those experiments, namely, which gave it authority), and after detecting some error in my experimentation, or some inaccuracy in my induction. The authoritative statement of Sir Charles Bell, repeated by every other anatomist, respecting the separate functions of the anterior and posterior columns of the spinal chord, was one which permitted no liberty of private judgment, but did permit liberty of private verification; and when M. Brown-Séquard repeated the original experiments and proved the former conclusions to be erroneous,* his authoritative statement replaced that of previous anatomists, and will continue to replace it, until it has undergone a similar defeat through the process of verification.

If this is a correct view, it will enable us to understand the long continuance of Aristotle's authority, which coerced the minds of men as the authority of one confessedly a master in his art, and one whose positions would not easily be brought to the test of verification. Hence, as Bayle says, the method employed was first to prove every thesis by authority, and next by arguments; the proofs by authority were passages of Aristotle; the arguments went to show that these passages, rightly interpreted, meant what the thesis meant.

Other causes contributed to foster this reverence for Authority; only one cause could effectually destroy it, and that was the rise of positive Science, which by forcing men to verify every step they took, led them into direct antagonism with the ancients, and made them choose between the new truth and the old dogma. As Campanella—one of the reforming thinkers—acutely saw, 'the reforms already made in philosophy must make us expect its complete change; and whoever denies that the Christian mind will surpass the Pagan mind, must also deny the existence of the New World, the planets and the stars, the seas, the animals, the colonies, and the modern sects of the new cosmography.'† It does not come within our purpose here to trace the rise and development of Science; we must therefore pass at once to Giordano Bruno, whom we have selected as the type of the philosophical insurgents against the authority of Aristotle and the Church.

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* See *Mémoires de la Société de Biologie.* 1855.

† Quoted by M. Renouvier, *Manuel de Philos. Moderne*, p. 7.

§ V. Giordano Bruno.*

On the 17th of February, 1600, a vast concourse of people was assembled in the largest open space in Rome, gathered together by the irresistible sympathy which men always feel with whatever is terrible and tragic in human existence. In the centre stood a huge pile of faggots; from out its logs and branches rose a stake. Crowding round the pile were eager and expectant faces, men of various ages and of various characters, but all for one moment united in a common feeling of malignant triumph. Religion was about to be avenged: a heretic was coming to expiate on that spot the crime of open defiance to the dogmas proclaimed by the Church —the crime of teaching that the earth moved, and that there was an infinity of worlds: the scoundrel! the villain! the blasphemer! Among the crowd might be seen monks of every description, especially Dominicans, who were anxious to witness the punishment of an apostate from their order; wealthy citizens were jostling ragged beggars,—young and beauteous women, some of them with infants at their breasts, were talking with their husbands and fathers,—and playing about amidst the crowd, in all the heedlessness of childhood, were a number of boys, squeezing their way, and running up against scholars pale with study, and bearded soldiers glittering with steel.

Whom does the crowd await? Giordano Bruno—the poet, philosopher, and heretic—the teacher of Galileo's heresy—the friend of Sir Philip Sidney, and open antagonist of Aristotle. Questions pass rapidly to and fro among the crowd; exultation is on every face, mingled with intense curiosity. Grave men moralize on the power of Satan to pervert learning and talent to evil: Oh, my friends, let us beware!—let us beware of learning! let us beware of everything! By-standers shake significant heads. A hush comes over the crowd. The procession solemnly advances, the soldiers peremptorily clearing the way for it. 'Look, there he is—there, in the centre! How calm—how haughty and stubborn! (women whisper, 'How handsome!') His large eyes are turned towards us, serene, untroubled. His face is placid though so pale. They offer him the crucifix; he turns aside his head—he *refuses to kiss it!* 'The heretic!' They show him the image of Him who died upon

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* In this Section I have altered and abridged an essay of my own in the *British Quarterly Review*.

the cross for the sake of the living truth—he refuses the symbol! A yell bursts from the multitude.

They chain him to the stake. He remains silent. Will he not pray for mercy? Will he not recant? Now the last hour is arrived—will he die in his obstinacy, when a little hypocrisy would save him from so much agony? It is even so: he is stubborn, unalterable. They light the faggots; the branches crackle; the flame ascends; the victim writhes—and now we see no more. The smoke envelopes him; but not a prayer, not a plaint, not a single cry escapes him.—In a little while the wind has scattered the ashes of Giordano Bruno.

The martyrdom of Bruno has preserved his name from falling into the same neglect as his writings. Most well-read men remember his name as that of one who, whatever his errors might have been, perished a victim of intolerance. But the extreme rarity of his works, aided by some other causes into which it is needless here to enter, has, until lately, kept even the most curious from forming any acquaintance with them. The rarity of the writings made them objects of bibliopolic luxury: they were the black swans of literature. Three hundred florins were paid for the *Spaccio,* in Holland, and thirty pounds in England. Jacobi's mystical friend, Hamann, searched Italy and Germany in vain for the dialogues *De la Causa* and *De l' Infinito.* But in 1830, Herr Wagner, after immense toil, brought out his valuable edition of the Italian works, and since then students have been able to form some idea of the Neapolitan thinker.*

Giordano Bruno was born at Nola, in La Terra di Lavoro, a few miles from Naples, and midway between Vesuvius and the Mediterranean.† The date of his birth is fixed as 1550—that is to say, ten years after the death of Copernicus,—whose system he was to espouse with such ardour,—and ten years before the birth of our own illustrious Bacon. Tasso well says:

'La terra
Simili a sè gli abitator' produce;'

and Bruno was a true Neapolitan child—as ardent as its volcanic soil, burning atmosphere, and dark thick wine (*mangia guerra*)—as capricious as its varied climate. There was a restless energy which

* *Opere di Giordano Bruno, Nolano, ora per la prima volta raccolte e pubblicate da Adolfo Wagner.* 2 vols., Leipzig, 1830.

† For the biographic details I am mainly indebted to the valuable work of M. Christian Bartholmess, entitled *Jordano Bruno,* 2 vols., Paris, 1848.

fitted him to become the preacher of a new crusade—urging him to throw a haughty defiance in the face of every authority in every country,—an energy which closed his wild adventurous career at the stake lighted by the Inquisition. He was also distinguished by a rich fancy, a varied humour, and a chivalrous gallantry, which constantly remind us that the athlete is an Italian, and an Italian of the sixteenth century. Stern as was the struggle, he never allowed the grace of his nature to be vanquished by its vehemence. He went forth as a preacher; but it was as a preacher young, handsome, gay, and worldly—as a poet, not as a fanatic.

The first thing we hear of him is the adoption of the Dominican's frock. In spite of his ardent temperament, so full of vigorous life, he shuts himself up in a cloister,—allured, probably, by the very contrast which such a life offered to his own energetic character. Bruno in a cloister has but two courses open to him: either all that affluent energy will rush into some stern fanaticism, and, as in Loyola, find aliment in perpetual self-combat, and in bending the wills of others to his purposes; or else his restless spirit of inquiry, stimulated by avidity for glory, will startle and irritate his superiors. It was not long ere the course was decided. He began to doubt the mystery of transubstantiation. Nay more: he not only threw doubt upon the dogmas of the Church, he had also the audacity to attack the pillar of all faith, the great authority of the age—Aristotle himself. The natural consequences ensued—he was feared and persecuted. Unable to withstand his opponents, he fled. Casting aside the monkish robe, which clothed him in what he thought a falsehood, he fled from Italy at the very moment when Montaigne, having finished the first part of his immortal Essays, entered it, to pay a visit to the unhappy Tasso, then raving in an hospital.

Bruno was now an exile, but he was free; and the delight he felt at his release may be read in several passages of his writings, especially in the sonnet prefixed to *L'Infinito*:

> 'Uscito di prigione angusta e nera,
> Ove tanti anni error stretto m' avvinse:
> Quà lascio la catena, che mi cinse,
> La man di mia nemica invida e fera,' etc.

He was thirty years of age when he began his adventurous course through Europe—to wage single-handed war against much of the falsehood, folly, and corruption of his epoch. Like his great prototype, Xenophanes, who wandered over Greece, a rhapsodist of

philosophy, striving to awaken mankind to a recognition of the Deity whom they degraded by their dogmas, and like his own unhappy rivals, Campanella and Vanini, Bruno became the knight-errant of truth, ready to combat all comers in its cause. His life was a battle without a victory. Persecuted in one country, he fled to another—everywhere sowing the seeds of revolt, everywhere shaking the dynasty of received opinion. It was a strange time,—to every earnest man, a sad and almost hopeless time. The Church was in a pitiable condition—decaying from within, and attacked from without. The lower clergy were degraded by ignorance, indolence, and sensuality; the prelates, if more enlightened, were enlightened only as epicures and pedants, swearing by the Gods of Greece and Rome, and laboriously imitating the sonorous roll of Ciceronian periods. The Reformation had startled the world, especially the ecclesiastical world. The Inquisition was vigilant and cruel; but among its very members were sceptics. Scepticism, with a polish of hypocrisy, was the general disease. It penetrated almost everywhere—from the cloister to the cardinal's palace. Scepticism, however, is only a transitory disease. Men *must* have convictions. Accordingly, in all ages, we see scepticism stimulating new reforms; and reformers were not wanting in the sixteenth century. Of the Lutheran movement it is needless here to speak. The sixteenth century marks its place in history as the century of revolutions: it not only broke the chain which bound Europe to Rome, it also broke the chain which bound philosophy to Scholasticism and Aristotle. It set human reason free; it proclaimed the liberty of thought and action. In the vanguard of its army, we see Telesio, Campanella, and Bruno, men who must always excite our admiration and our gratitude for their cause and for their courage. They fell fighting for freedom of thought and utterance—the victims of a fanaticism the more odious because it was not the rigour of belief, but of *pretended* belief. They fought in those early days of the great struggle between science and prejudice, when Galileo was a heretic, and when the implacable severity of dogmatism baptized in blood every new thought born into the world.

One spirit is common to all these reformers, however various their doctrines: that spirit is one of unhesitating opposition to the dominant authority. It is the crisis of the Middle Ages—the modern era dawns there. In the fifteenth century men were occupied with the newly-awakened treasures of ancient learning: it was a century of erudition; the past was worshiped at the expense of

the present. In art, in philosophy, and in religion, men sought to restore the splendours of an earlier time. Brunelleschi, Michael Angelo, Raphael, disdaining the types of Gothic art, strove to recall once more the classic type. Marsilio Ficino, Mirandola, Telesio, and Bruno, discarding the subtleties and disputes of Scholasticism, endeavoured to reproduce Pythagoras, Plato, and Plotinus. In religion, Luther and Calvin, avowedly rising against Papal corruptions, laboured to restore the Church to its primitive simplicity. Thus the new era seemed retrograde. It is often so. The recurrence to an earlier time is the preparation for a future. We cannot leap far, leaping from the spot where we stand; we must step backwards a few paces to acquire momentum.

Giordano Bruno ceaselessly attacked Aristotle. In so doing he knew that he grappled with the Goliah of the Church. Aristotle was a synonym for reason. An anagram was made of his name, 'Aristoteles: *iste sol erat.*' His logic and physics, together with the Ptolemaic system of astronomy, were then considered as inseparable portions of the Christian creed. In 1624—a quarter of a century after Bruno's martyrdom—the Parliament of Paris issued a decree banishing all who publicly maintained theses against Aristotle; and in 1629, at the urgent remonstrance of the Sorbonne, decreed that to contradict the principles of Aristotle was to contradict the Church! There is an anecdote recorded somewhere of a student, who, having detected spots in the sun, communicated his discovery to a worthy priest: 'My son,' replied the priest, 'I have read Aristotle many times, and I assure you there is nothing of the kind mentioned by him. Go rest in peace; and be certain that the spots which you have seen are in your eyes, and not in the sun.' When Ramus solicited the permission of Beza to teach in Geneva, he was told, 'the Genevese have decreed once for all, that neither in logic, nor in any other branch of knowledge, will they depart from the opinions of Aristotle—*ne tantillum quidem ab Aristotelis sententiâ deflectere.*' It is well known that the Stagirite narrowly escaped being canonized as a Saint. Are you for or against Aristotle? was *the* question of philosophy; and the piquant aspect of this ἀριστοτελεομαχία is the fact that both parties were often ignorant of the real opinions of the Stagirite; attributing to him indeed doctrines the very reverse of what a more ample knowledge of his writings has shown to have been his.

Bruno, as we said, took his stand opposite to the Aristotelians. Pythagoras, Plato, and Plotinus were his teachers. Something of

temperament may have originated this; for Bruno undoubtedly belongs to that class of thinkers in whom logic is but the handmaid of Imagination and Fancy. To him the Aristotle of that age was antipathetic. The Aristotelians taught that the world was finite, and the heavens incorruptible. Bruno declared the world to be infinite, and subject to an eternal and universal revolution. The Aristotelians proclaimed the immobility of the earth: Bruno proclaimed its rotation. Such open dissidence could of course only enrage the party in power. It would have been sufficiently audacious to promulgate such absurdities—*horrenda prorsus absurdissima*—as the rotation of the earth; but to defy Aristotle and ridicule his logic, could only proceed from insanity, or impiety. So Bruno had to fly.

To Geneva he first directed his steps. But there the power which had proved stronger than the partisans of Servetus, was still dominant. He made his escape to Toulouse; there he raised a storm among the Aristotelians, such as compelled him to fly to Paris. Behold him then in Paris, the streets of which were still slippery with the blood of the Eve of St. Bartholomew. One expects to see him butchered without mercy; but, by some good fortune, he obtains the favour of Henry III., who not only permits him to lecture at the Sorbonne, but offers to admit him as a salaried professor, if Bruno will but attend Mass. Is it not strange that at a time when attendance at Mass was so serious a matter,—when the echoes of that lugubrious cry, *la Messe ou la mort!* which had resounded through those narrow murky streets, must have been still ringing in men's ears,—Bruno, in spite of his refusal, not only continued to lecture, but became exceedingly popular? Since Abelard had captivated the students of Paris with his facile eloquence and startling novelties, no teacher had been so enthusiastically received as Bruno. Young, handsome, eloquent, and facetious, he charmed by his manner no less than by his matter. Adopting by turns every form of address—rising into the aerial altitudes of imagination, or descending into the kennel of obscenity and buffoonery—now grave, prophetlike, and impassioned—now fierce and controversial—now fanciful and humorous—he threw aside all the monotony of professional gravity, to speak to them as a man. He did not on this occasion venture openly to combat the prejudices and doctrines of the age; that was reserved for his second visit, after he had learned in England to speak as became a free and earnest man.

To England let us follow him. On the misty banks of our noble Thames, he was rudely initiated into the brutality of the English character; but he was amply compensated by his reception at the Court of Elizabeth, where a friendly welcome awaited all foreigners —especially Italians. Nor was his southern heart cold to the exquisite beauty and incomparable grace of our women. England was worth visiting; and he had reason to refer with pride to 'questo paese Brittannico a cui doviamo la fedeltà ed amore ospitale.' It was in England he published the greater part of his Italian works. It was here perhaps that the serenest part of his life was spent. Patronized by the Queen ('l'unica Diana qual è tra voi, qual che tra gli astri il sole,' as he calls her), he had the glory and the happiness to call Sir Philip Sidney friend.

In the high communion of noble minds, in the interchange of great thoughts and glorious aspirations, another than Bruno might have been content to leave the world and all its errors in peace; but he had that within him which would not suffer him to be at rest. He could not let the world wag on its way, content to smile on its errors. He had a mission—without the cant of a mission. He was a soldier, and had his battles to fight. In the society of Sir Philip Sidney, Sir Fulke Greville, Dyer, Harvey, and most probably of Antonio Perez and Shakspeare's Florio, Bruno *might* have discussed with calmness every question of philosophy,—that is, had he been of an epicurean turn—had he not been Bruno. As it was, lured by his passion for publicity—by his vanity, no less than by his love of truth—he rushed into the arena,

'Confident as is the falcon's flight.'

If we attribute to him motives not altogether pure—if we see as much ostentation as devotion in this conduct, let it be remembered, that in this life the great aims of humanity are worked out by *human* means, wherein the impure and selfish are as much vital elements as the noble. In the great mechanism there are numberless trivial wheels, and littleness is often the *accessory* spring of some heroic act. This is no concession to the school of Rochefoucauld. That school makes the great mistake of attributing the splendour of the sun to its spots,—of deriving the greatness of human nature from its littleness. A selfish impulse will often mingle with the unselfish impulses which prompt an heroic act. We have only to reflect on the numerous instances of selfish impulse *unaccompanied* by any heroism, to be assured that if selfishness and disinterestedness may be

found conjoined in the mingled woof of human nature, it in nowise alters the fact of disinterestedness, it in nowise lessens the worthiness of heroism. What philosophy is that which sees *only* vanity in martyrdom, *only* love of applause in the daring proclamation of truth? Gold without dross is not to be found in the earth; but is it therefore copper?

Let us follow Bruno's course with other feelings than those of a short-sighted philosophy. It was not very long after his arrival in England (1583) that Leicester, then Chancellor of Oxford, gave that splendid *fête* in honour of the County Palatine Albert de Lasco, of which the annals of Oxford and the works of Bruno have preserved some details. In those days a foreigner was 'lionized' in a more grandiose style than modern Amphitryons attempt. It was not deemed sufficient to ask the illustrious stranger to 'breakfast;' there were no 'dinners' given in public, or at the club. The age of tournaments had passed away; but there were still the public discussions, which were a sort of passage-of-arms between the knights of intellect. And such a tourney had Leicester prepared in honour of the Pole. Oxford called upon her doughty men to brighten up their arms,—that is to say, to shake the dust from their volumes of Aristotle,—and all comers were challenged. Bruno stepped into the arena. Oxford chose her best men to combat for Aristotle and Ptolemy. On that cause her existence seemed to depend. Her statutes declared that the Bachelors and Masters of Arts who did not faithfully follow Aristotle were liable to a fine of five shillings for every point of divergence, or for every fault committed against the *Organon*. Bruno wittily called Oxford the *widow* of sound learning —'la vedova di buone lettere.'

The details of this 'wit combat' are unknown to us. Bruno declares that fifteen times did he stop the mouth of his pitiable adversary, who could only reply by abuse.* But there is considerable *forfanterie* about the Neapolitan, and such statements must be received with caution. That he created a 'sensation' we have no

* 'Andate in Oxonia e fatevi raccontar le cose intravenute al Nolano quando pubblicamente disputò con que' dottori in teologia in presenza del Principe Alasco Polacco, et altri de la nobilità inglese! Fatevi dire come si sapea rispondere a gli argomenti, come restò per quindici sillogismi quindici volte qual pulcino entro la stoppa quel povero dottor, che come il corifeo de l' accademia ne puosero avanti in questa grave occasione! Fatevi dire con quanta incivilità e discortesia procedea quel porco, e con quanta pazienza et umanità quell' altro, che in fatto mostrava essere Napoletano nato et allevato sotto più benigno cielo!'—*La Cena de le Ceneri: Opp. Ital.* ii. 179.

doubt; his doctrines were sufficiently startling. We also find him, on the strength of that success, soliciting permission of the Oxford Senate to profess openly. With his usual arrogance he styles himself, in this address, as a 'doctor of a more perfect theology, and professor of a purer wisdom,' than was there taught. Strange as it may appear, permission was granted; probably because he had the patronage of Elizabeth. He lectured on cosmology, and on the immortality of the soul: a doctrine which he maintained, not upon the principles of Aristotle, but upon those of the Neo-Platonists, who regarded this life as a brief struggle, a sort of agony of death, through which the soul must pass ere it attains to the splendour of existence in the eternal and universal life. In the deep unquenchable desire which is within us to unite ourselves with God, and to quit this miserable sphere for the glorious regions of eternity, is the written conviction of our future existence. No doubt he preached this doctrine with stirring eloquence; but it must have sounded very heterodox in the ears of that wise conclave—styled by Bruno 'a constellation of pedants, whose ignorance, presumption, and rustic rudeness would have exhausted the patience of Job,'—and they soon put an end to his lectures.*

We have already intimated the protection which Elizabeth accorded him, and which he repaid by adulation, extravagant enough, but which was then the current style in speaking of royalty; and it should not be forgotten that this praise of a Protestant Queen was not among the least of his crimes in the eyes of his accusers. Still, even Elizabeth could not protect a heretic; and Bruno's audacious eloquence roused such opposition that he was forced to quit England. He returned to Paris, once more to court the favour of the *Quartier Latin*. He obtained permission to open a public disputation on the physics of Aristotle. For three successive days did this dispute continue, in which the great questions of nature, the universe, and the rotation of the earth were discussed. Bruno had thrown aside the veil, and presented his opinions naked to the gaze. His impetuous onslaught upon established opinions produced the natural result: he was forced again to fly.

We next find him in Germany, carrying the spirit of innovation into its august universities. In July, 1586, he matriculated as *theologiæ doctor Romanensis* in the university of Marburg, in Hesse; but permission to teach philosophy was refused him *ob arduas causas*.

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* Vide *Cena de le Ceneri*.

Whereupon he insulted the Rector in his own house, created a disturbance, and insisted that his name should be struck off from the list of members of the University. He set off for Würtemberg. His reception in this centre of Lutheranism was so gratifying, that he styled Würtemberg the Athens of Germany. 'Your justice,' he writes to the Senate, 'has refused to listen to the insinuations circulated against my character and my opinions. You have with admirable impartiality permitted me to attack with vehemence that philosophy of Aristotle which you prize so highly.' For two years did he teach there with noisy popularity, yet on the whole with tolerable prudence in not speaking against the peculiar views of Lutheranism. He even undertook a defence of Satan; but whether in that spirit of pity which moved Burns, or whether in the spirit of buffoonery which delights to play with awful subjects, we have no means of ascertaining. He did not offend his audience, in whatever spirit he treated the subject.

Here, then, in Würtemberg, with admiring audiences and free scope for discussion, one might fancy he would be at rest. Why should he leave so enviable a position? Simply because he was not a man to rest in ease and quiet. He was possessed with the spirit of a reformer, and this urged him to carry his docrines into other cities. Characteristic of his audacity is the next step he took. From Würtemberg he went to Prague; from the centre of Lutheranism to the centre of Catholicism! In this he had reckoned too much on his own powers. He met with neither sympathy nor support in Prague. He then passed on to Helmstadt, where his fame having preceded him, the Duke of Brunswick conferred upon him the honourable charge of educating the hereditary Duke. Here again, if he had consented to remain quiet, he might have been what the world calls 'successful;' but he was troubled with convictions—things so impedimental to success!—and these drew down upon him a sentence of excommunication. He justified himself, indeed, and the sentence was removed: but he was not suffered to remain in Helmstadt; so he passed to Frankfort, and there in quiet, brief retirement published three of his Latin works. Here a blank occurs in his annals. When next we hear of him he is at Padua.

After an absence of ten years, the wanderer returns to Italy. In his restless course, he has traversed Switzerland, France, England, and Germany; his hand against every man, and every man's hand against him. Heretic and innovator, he has irritated the

clergy without securing the protection of philosophers. He has sought no protection but that of truth. That now he should choose Padua above all places, must ever excite our astonishment. Padua, where Aristotle reigns supreme! Padua, which is overshadowed by Venice and the Inquisition! Was he weary of life, that he thus marched into the camp of his enemy? or did he rely on the force of his convictions and the vigour of his eloquence to triumph even in Padua? None can say. He came—he taught—he fled. Venice received him,—but it was in her terrible prison. Lovers of coincidences will find a piquant illustration in the fact that at the very moment when Bruno was thrown into prison, Galileo opened his course of mathematics at Padua; and the six years in which Galileo occupied that mathematical chair, were the six years Bruno spent in miserable captivity.

Bruno's arrest was no sooner effected than intimation of it was sent to the Grand Inquisitor San Severina, at Rome, who ordered that the prisoner should be sent to him, under escort, on the first opportunity. Thomas Morosini presented himself before the *Savi* of Venice, and demanded, in the name of his Eminence, that Bruno should be delivered up to him. 'That man,' said he, 'is not only a heretic, but an heresiarch. He has written works in which he highly lauds the Queen of England and other heretical princes. He has written diverse things touching religion, which are contrary to the faith.' The *Savi*, for some reason or other, declined to give up their prisoner, saying the matter was too important for them to take a sudden resolution. Was this mercy? Was it cruelty? In effect, it was cruelty; for Bruno languished six years in the prisons of Venice, and only quitted them to perish at the stake. Six long years of captivity—worse than any death. To one so ardent, solitude itself was punishment. He wanted to be among men, to combat, to argue, to live; and he was condemned to the fearful solitudes of that prison, without books, without paper, without friends. Such was the repose which the weary wanderer found on his native soil.

His prison doors were at length opened, and he was removed to Rome, there to undergo a tedious and fruitless examination. Of what use was it to call upon him to retract his opinions? The attempt to convince him was more rational; but it failed. The tiresome debate was needlessly prolonged. Finding him insensible to their threats and to their logic, they brought him, on the 9th of February, to the palace of San Severino; and there, in the presence

of the cardinals and most illustrious theologians, he was forced to kneel and receive the sentence of excommunication. That sentence passed, he was handed over to the secular authorities, with a recommendation of a 'punishment as merciful as possible, and without effusion of blood'—*ut quam clementissimè et citra sanguinis effusionem puniretur*,—the atrocious formula for burning alive.

Calm and dignified was the bearing of the victim during the whole of this scene. It impressed even his persecutors. On hearing his sentence, one phrase alone disturbed the unalterable serenity of his demeanour. Raising his head with haughty superiority, he said, 'I suspect you pronounce this sentence with more fear than I receive it.' A delay of one week was accorded to him, in the expectation that fear might force a retractation; but the week expired, and Bruno remained immovable. He perished at the stake; but he died in the martyr spirit, self-sustained and silent, welcoming death as the appointed passage to a higher life.

'Fendo i cieli e a l'infinito m'ergo.'

Bruno perished the victim of intolerance. It is impossible to read of such a punishment without strong indignation and disgust. There is, indeed, no page in the annals of mankind which we would more willingly blot out, than those upon which fanaticism has written its bloody history. Frivolous as have often been the pretexts for shedding blood, none are more abhorrent to us than those founded upon religious differences. Surely the question of religion is awful enough in itself! Men have the deepest possible interest in ascertaining the truth of it: and if they cannot read the problem aright by the light of their own convictions, will it be made more legible by the light of an *auto-da-fé?* Tolerance is still far from being a general virtue; but what scenes of struggle, of violence, and of persecution has the world passed through, before even the present modicum of tolerance could be gained! In the sixteenth century, free thought was a crime. The wisest men were bitterly intolerant; the mildest, cruel. Campanella tells us that he was fifty times imprisoned, and seven times put to the torture, for daring to think otherwise than those in power. It was indeed the age of persecution. That which made it so bloody was the vehemence of the struggle between the old world and the new—between thought and established dogma—between science and tradition. In every part of Europe—in Rome itself—men uprose to utter their new doctrines, and to shake off the chains which

enslaved human intellect. It was the first great crisis in modern history, and we read its progress by the bonfires lighted in every town. The glare of the stake reddened a sky illumined by the fair auroral light of Science.

Did Bruno deserve to die? According to the notions of that age, he certainly did; though historians have, singularly enough, puzzled themselves in the search after an adequate motive for so severe a punishment. He had praised heretical princes; he had reasoned philosophically on matters of faith—properly the subjects of theology; he had proclaimed liberty of thought, and investigation; he had disputed the infallibility of the Church in science; he had propagated such heresies as the rotation of the earth, and the infinity of worlds; he had refused to attend Mass; he had repeated many buffooneries then circulating, which threw contempt upon sacred things; finally, he had taught a system of Pantheism, which was altogether opposed to Christianity. He had done all this; and whoever knows the sixteenth century, will see that such an innovator had no chance of escape. Accordingly, the flames (as Scioppius sarcastically wrote in describing the execution to a friend) 'carried him to those worlds which he imagined.'

'As men die, so they walk among posterity,' is the felicitous remark of Monckton Milnes; and Bruno, like many other men, is better remembered for his death than for anything he did while living. The flames which consumed his body have embalmed his name. He knew it would be so—'La morte d'un secolo fa vivo in tutti gli altri.'

Considered as a system of philosophy, we cannot hesitate in saying that Bruno's has only an historical, not an intrinsic value. Its condemnation is written in the fact of its neglect. But taken historically, his works are very curious, and still more so when we read them with a biographical interest; for they not only illustrate the epoch, but exhibit the man,—exhibit his impetuosity, recklessness, vanity, imagination, buffoonery, his thoroughly Neapolitan character, and his sincere love of truth. Those who wish to see grave subjects treated with dignity, will object to the license he allows himself, and will have no tolerance for the bad taste he so often displays. But we should rather look upon these works as the rapid productions of a restless athlete—as the improvisations of a full, ardent, but irregular mind, in an age when taste was less fastidious than it has since become. If Bruno mingled buffooneries and obscenities with grave and weighty topics, he therein only

follows the general license of that age; and we must extend to him the same forgiveness as to Bembo, Ariosto, Tansillo, and the rest. Plato himself is not wholly exempt from the same defect.

In adopting the form of dialogue, Bruno also followed the taste of his age. It is a form eminently suited to polemical subjects; and all his works were polemical. It enabled him to ridicule by turns the pedants, philosophers, and theologians; and to enunciate certain doctrines which even his temerity would have shrunk from, had he not been able to place them in the mouth of another. He makes his dialogues far more entertaining than works of metaphysics usually are; and this he does by digressions, by ridicule, by eloquence, and a liberal introduction of sonnets. Sometimes his very vivacity becomes wearisome. The reader is stunned and bewildered by the remorseless torrent of substantives and epithets which pours from his too prolific pen. There is nobody to rival him, but Rabelais, in this flux of words.* His great butts are the clergy, and the philosophers. He reproaches the former with ignorance, avarice, hypocrisy, and the desire to stifle inquiry and prolong the reign of ignorance. The philosophers he reproaches with blind adherence to authority, with stupid reverence for Aristotle and Ptolemy, and with slavish imitation of antiquity. It should be observed that he does not so much decry Aristotle, as the idolatry of Aristotle.† Against the pedantry of that pedantic age he is always hurling his thunders. 'If,' says he, in one place, characterizing the pedant, 'he laughs, he calls himself Democritus; if he weeps, it is with Heraclitus; when he argues, he is Aristotle; when he combines chimeras, he is Plato; when he stutters, he is Demosthenes.' That Bruno's scorn sprang from no misology, his own varied erudition proves. But while *he* studied the ancients to extract from them such eternal truths as were buried amidst a mass

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* To give the reader a taste of this quality, we will cite a sentence from the dedicatory epistle to *Gli Eroici Furori*: 'Che spettacolo, o Dio buono! più vile e ignobile può presentarsi ad un occhio di terso sentimento, che un uomo cogitabundo, afflitto, tormentato, triste, maninconioso, per divenir or freddo, or caldo, or fervente, or tremante, or pallido, or rosso, or in mina di perplesso, or in atto di risoluto, un, che spende il miglior intervallo di tempo destillando l'elixir del cervello con mettere scritto e sigillar in pubblici monumenti, quelle continue torture, que' gravi tormenti, que' razionali discorsi, que' fatuosi pensieri, e quelli amarissimi studi, destinati sotto la tirannide d'una indegna imbecille stolta e sozza sporcaria?' Thus it continues for some fifty lines more!—*Opp. Ital.* ii. 299.

Vide *Opp. Ital.* ii. 67, where this is explicitly stated.

of error, *they*, the pedants, only studied how to deck themselves in borrowed plumes.

Turning from manner to matter, we must assign to Bruno a place in the history of philosophy, as a successor of the Neo-Platonists, and the precursor of Spinoza, Descartes, Leibnitz, and Schelling. That Spinoza and Descartes were actually conversant with the writings of Giordano Bruno does not distinctly appear. Yet it is not to be disputed that Bruno anticipated Spinoza in his conception of the *immanence* of the Deity, in his famous *natura naturans* and *natura naturata*, and in his pantheistic theory of evolution. He also anticipated Descartes' famous criterium of truth, viz. that whatever is clear and evident to the mind, and does not admit of contradiction, must be true; and in his proclamation of Doubt as opposed to Authority, he thus insists upon Doubt as the starting-point: '*Chi vuol perfettamente giudicare deve saper spogliarsi de la consuetudine di credere, deve l' una e l' altre contradittoria esistimare egualmente possibile, e dismettere a fatto quell' affezione di cui è imbibeto da natività.*'* Leibnitz was avowedly acquainted with Bruno's works, and derived therefrom his theory of monads. Schelling makes no secret of his obligations.

There is another merit in Bruno which should not be overlooked, that, namely, of giving a strong impulse to the study of *Nature*. Occupied with Syllogisms about entities and quiddities, the philosophy of the Middle Ages had missed the great truth that 'man is the minister and interpreter of nature.' Philosophy taught that the interpretation could proceed only from *within;* that men were to look into their own minds to analyze, subdivide, and classify their own ideas, instead of looking forth into Nature, and patiently observing her processes.† Bruno was one of the first to call men out into the free air. With his poetical instinct he naturally looked to Nature as the great book for man to read. He deified Nature; and looked upon the Universe as the garment of God, as the incarnation of the divine activity. Let not this be misunderstood, however. If Bruno embraced the Copernican theory, and combated the general physics of his day, he is not on that account to be mis-

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* *De l' Infinito Universo e Mondi: Opp. Ital.* ii. 84.

† It is of them Telesio energetically says: 'Sed veluti cum Deo de sapientiâ contendentes decertantesque, mundi ipsius principia et causas ratione inquirere ausi, et quæ non invenerant, inventa ea sibi esse existimantes, volentesque, veluti suo arbitratu, mundum affluxere.'—*De Rerum Naturâ, in Proœm.*

taken for a man of scientific Method. He espoused the correct view of the earth's sphericity and rotation; but he did so on the faith of his metaphysical theories, not on rigorous induction.

Bruno's creed was Pantheism. God was the Infinite Intelligence, the Cause of causes, the Principle of all life and mind; the great Activity, whose action we name the Universe. But God did not *create* the universe; he *informed* it with life—with being. He *is* the universe; but only as the cause is the effect, sustaining it, *causing* it, but not limited by it. He is self-existing, yet so essentially active as incessantly to manifest himself as a Cause. Between the supreme Being and the inferior beings dependent upon him, there is this distinction: He is absolutely simple, without parts. He is one whole, identical and universal; whereas the others are mere individual parts, distinct from the great Whole. Above and beyond the visible universe there is an Infinite Invisible,—an immovable, unalterable Identity, which rules over all diversity. This Being of Beings, this Unity of Unities, is God: 'Deus est monadum monas, nempe entium entitas.'

Bruno says, that although it is impossible to conceive nature separated from God, we can conceive God separated from nature. The infinite Being is the essential centre and substance of the universe, but he is above the essence and substance of all things: he is *superessentialis, supersubstantialis.* Thus we cannot conceive a thought independent of a mind, but we can conceive a mind apart from any one thought. The universe is a thought of God's mind —nay more, it is the infinite activity of his mind. To suppose the world finite is to limit his power. 'Wherefore should we imagine that the Divine activity (*la divina efficacia*) is idle? Wherefore should we say that the Divine goodness, which can communicate itself *ad infinitum,* and infinitely diffuse itself, is willing to restrict itself? Why should his infinite capacity be frustrated—defrauded of its possibility to create infinite worlds? And why should we deface the excellence of the Divine image, which should rather reflect itself in an infinite mirror, as his nature is infinite and immense?'*

Bruno admits the existence of only one intelligence, and that is God. *Est Deus in nobis.* This intelligence, which is perfect in God, is less perfect in inferior spirits; still less so in man; more and more imperfect in the lower gradations of created beings. But

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* *De l' Infinito: Opp. Ital.* ii. 24.

all these differences are differences of degree, not of kind. The inferior order of beings do not understand themselves, but they have a sort of language. In the superior orders of beings, intelligence arrives at the point of self-consciousness—they understand themselves, and those below them. Man, who occupies the middle position in the hierarchy of creation, is capable of contemplating every phasis of life. He sees God above him—he sees around him traces of the divine activity. These traces, which attest the immutable order of the universe, constitute the soul of the world. To collect them, and connect them with the Being whence they issue, is the noblest function of the human mind. Bruno further teaches that, in proportion as man labours in this direction, he discovers that these traces, spread abroad in nature, do not differ from the *ideas* which exist in his own mind.* He thus arrives at the perception of the identity between the soul of the world and his own soul, both as reflections of the Divine intelligence. He is thus led to perceive the identity of Subject and Object, of Thought and Being.

Such is the faint outline of a doctrine, to preach which Bruno became a homeless wanderer and a martyr; as he loftily says, 'Con questa filosofia l' anima mi s' aggrandisce, *e mi si magnifica l' intelletto.*' If not original, this doctrine has at any rate the merit of poetical grandeur. In it deep thoughts, wrestling with imperfect language, do get some sort of utterance. As a system, it is more imaginative than logical; but to many minds it would be all the more acceptable on that account. Coleridge used to say, and with truth, that imagination was the greatest faculty of the philosopher; and Bruno said, 'Philosophi sunt quodammodo pictores atque poetæ. . . . Non est philosophus nisi fingit et pingit.' Little as the dull man of science may be aware of it, the great faculty of imagination is indispensable even to his science: it is the great telescope with which we look into the infinite. But in metaphysics imagination plays a still greater part: it there reigns as a queen.

The works of Bruno are mostly in Italian, Latin having been happily reserved by him for the logical treatises. The volumes which we owe to the honourable diligence and love of philosophy

* 'Elp.: What is the purpose of the senses?—Fil.: Solely to excite the reason; to indicate the truth, but not to judge of it. Truth is in the sensible object as in a mirror; in the reason, as a matter of argument; in the intellect, as a principle and conclusion; but in the mind it has its true and proper form.' —*De l' Infinito*, p. 18.

of Adolph Wagner, open with the comedy, *Il Candelajo*, which was adapted to the French stage under the title of *Boniface le Pédant*, from which Cyrano de Bergerac took his *Pédant Joué*,—a piece which in its turn was plundered by Molière, who, with charming wit and candour, avows it: 'Ces deux scènes (in Cyrano) étaient bonnes; elles m'appartenaient de plein droit; *on reprend son bien partout où on le trouve.*'* According to Charles Nodier, Molière was indebted to Bruno for several scenes; but it is difficult to settle questions of plagiarism. Bruno's comedy is long, full of absurd incidents and Neapolitan buffoonery, and might have suggested a good deal to such a prolific mind as Molière's. In it he has exhibited 'the amorousness of one old man named Bonifacio, the sordid avarice of another named Bartolomeo, and the pedantry, not less sordid, of a third named Manfurio.' Ladies of vacillating virtue, soldiers, sailors, and scamps concert together to deceive these three old men, and wring money from their sensuality, their avarice, and their superstition. Bonifacio, desperately in love with Vittoria, is nevertheless alarmed at the enormous expense necessary to make his addresses acceptable. He had recourse to Scaramure, a reputed magician, who sells him a wax figure, which he is to melt, and thus melt the obdurate heart of his fair one. After a succession of disasters, Bonifacio is seized by pretended police, who force from him a heavy ransom. Bartolomeo becomes the dupe of Cencio, an impostor, who sells him a receipt for making gold. Manfurio, the pedant, is beaten, robbed, and ridiculed throughout. The sensualism and niggardliness of Bonifacio, and the pedantry of Manfurio, are

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* This is, perhaps, the wittiest of all the variations of the 'pereant male qui ante nos nostra dixissent.' The Chevalier D'Aceilly's version is worth citing:—

'Dis-je quelque chose assez belle?
L'antiquité tout en cervelle
Prétend l'avoir dite avant moi.
C'est une plaisante donzelle!
Que ne venait-elle après moi?
J'aurais dit la chose avant elle!

While on this subject, we cannot resist Piron's lines:—

'Ils ont dit, il est vrai, presque tout ce qu'on pense.
Leurs écrits sont des vols qu'ils nous ont faits d'avance.
Mais le remède est simple; il faut faire comme eux,
Ils nous ont dérobés; dérobons nos neveux.
Un démon triomphant m'élève à cet emploi:
Malheur aux écrivains qui viendront après moi!'

La Metromanie.

hit off with true comic spirit; and the dialogue, though rambling and diffuse, is enlivened by *lazzi*—not always the most decent, it is true—and crowded with proverbs. Dramatic art there is none: the persons come on and talk; they are succeeded by fresh actors, who, having talked, also retire to give place to others. The whole play leaves a very confused impression. The hits at alchemy and pedantry were, doubtless, highly relished in those days.

It is very strange to pass from this comedy to the work which succeeds it in Wagner's edition, *La Cena de le Ceneri*. In five dialogues he combats the hypothesis of the world's immobility; proclaims the infinity of the universe, and warns us against seeking its centre or circumference. He enlarges on the difference between appearances and reality in celestial phenomena; argues that our globe is made of the same substance as the other planets, and that everything which *is*, is living, so that the world may be likened to a huge animal.* In this work he also answers his objectors, who bring against his system the authority of Scripture, exactly in the same way as modern geologists answer the same objection, viz. by declaring that the revelation in the Bible was a moral not a physical revelation. It did not pretend to teach science, but, on the contrary, adopted ordinary notions, and expressed itself in the language intelligible to the vulgar.† In this work there are some digressions more than usually interesting to us, because they refer to the social condition of England during Elizabeth's reign.

The two works, *De la Causa* and *De l'Infinito*, contain the most matured and connected exposition of his philosophical opinions. As our space will not admit of an analysis, we must refer to that amply given by M. Bartholmess.‡ The *Spaccio de la Bestia Trionfante* is the most celebrated of all his writings. It was translated by Toland, in 1713, who printed only a very few copies, as if wishing it to fall into the hands of only a few choice readers. The very title

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* An idea borrowed from Plato, who, in the *Timæus*, says, Οὕτως οὖν δὴ κατὰ λογὸν τὸν εἰκότα δεῖ λέγειν τόνδε τὸν κόσμον ζῶον ἔμψυχον ἔννουν τε τῇ ἀληθείᾳ διὰ τὴν τοῦ θεοῦ γενέσθαι πρόνοιαν.—p. 26, ed. Bekker. Compare also *Politicus*, p. 273. Bruno may have taken this directly from Plato, or he might have learned it from the work of his countryman, Telesio, *De Rerum Naturâ*.

† 'Secondo il senso volgare et ordinario modo di comprendere e parlare.' The whole of the early portion of Dialogue 4 (in which this distinction is maintained) is worth consulting.—*Opere*, i. 172 *sq*.

‡ Vol. ii. pp. 128–154.

has been a sad puzzle to the world, and has led to the strangest suppositions. The 'Triumphant Beast,' which Bruno undertakes to expel, is none other than this: ancient astronomy disfigured the heavens with animals as constellations, and under guise of expelling these, he attacks the great beast (superstition) whose predominance causes men to believe that the stars influence human affairs. In his *Cabala del Cavallo Pegaseo*, he sarcastically calls the ass 'la bestia trionfante viva,' and indites a sonnet in praise of that respectable quadruped:

'Oh sant' asinità, sant' ignoranza,
Santa stoltizia, e pia divozione,
Qual sola puoi far l' anima sì buone
Ch' uman ingegno e studio non l'avanza!' etc.

The *Spaccio* is an attack upon the superstitions of the day,—a war against ignorance, and 'that orthodoxy without morality, and without belief, which is the ruin of all justice and virtue.' Morality Bruno fancifully calls 'the astronomy of the heart;' but did not even Bacon call it 'the *Georgics* of the mind'? The *Spaccio* is a strange medley of learning, imagination, and buffoonery; and on the whole, perhaps the most tiresome of all his writings. M. Bartholmess, whose admiration for Bruno greatly exceeds our own, says of it: 'The mythology and symbolism of the ancients is there employed with as much tact as erudition. The fiction that the modern world is still governed by Jupiter and the court of Olympus, the mixture of reminiscences of chivalry, and the marvels of the middle ages, with the tales and traditions of antiquity—all those notions which have given birth to the philosophy of mythology, of religions, and of history—the Vicos and the Creuzers—this strange medley makes the *Spaccio* so interesting. The philosopher there speaks the noble language of a moralist. As each virtue in its turn appears to replace the vices which disfigure the heavens, it learns from Jupiter all it has to do, all it has to avoid: all its attributes are enumerated and explained, and mostly personified in the allegorical vein; all the dangers and excesses it is to avoid are characterized with the same vigour. Every page reveals a rare talent for psychological observation, a profound knowledge of the heart, and of contemporary society. The passions are subtly analyzed and well painted. That which still more captivates the thoughtful reader is the sustained style of this long fiction, which may be regarded as a sort of philosophic sermon. Truth and wisdom, justice and candour, take the place in the future now occupied

by error, folly, and falsehood of every species. In this last respect the *Spaccio* has sometimes the style of the Apocalypse.'

Without impugning the justice of this criticism, we must add, that the *Spaccio* taxes even a bookworm's patience, and ought to be read with a liberal license in skipping.

Perhaps of all his writings, *Gli Eroici Furori* is that which would most interest a modern reader, not curious about the philosophical speculations of the Neapolitan. Its prodigality of sonnets, and its mystic exaltation, carry us at once into the heart of that epoch of Italian culture when poetry and Plato were the great studies of earnest men. In it Bruno, avowing himself a disciple of Petrarch, proclaims a Donna more exalted than Laura, more adorable than all earthly beauty: that Donna is the imperishable image of Divine Perfection. It is unworthy of a man, he says, to languish for a woman; to sacrifice to her all those energies and faculties of a great soul, which might be devoted to the pursuit of the Divine. Wisdom, which is truth and beauty in one, is the idol adored by the genuine hero. Love woman if you will, but remember that you are also a lover of the Infinite. Truth is the food of every heroic soul; hunting for Truth the only occupation worthy of a hero.* The reader of Plato will trace here a favourite image; and was it not Berkeley who defined Truth as the cry of all, but the game few run down?

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* *Vide*, in particular, the fine passage, *Opp. Ital.* ii. 406–7.

FIRST EPOCH.

FOUNDATION OF THE INDUCTIVE METHOD.

§ I. The Life of Bacon.

FRANCIS BACON was born on the 22nd January, 1561. Mr. Basil Montagu, the laborious and affectionate (we had almost said idolatrous) biographer of Bacon, wishes us to believe that the family was ancient and illustrious; and favours us with rhetorical flourishes about Bacon retiring to the 'halls of his ancestors.' This is somewhat different from the story of Bacon's grandfather having kept the sheep of the Abbot of Bury.*

But although we can claim for Bacon no illustrious ancestry, we must not forget his excellent parentage. His father, Sir Nicholas, was generally considered as ranking next to the great Burleigh as a statesman. His mother, Anne, daughter of Sir Anthony Cooke, 'was distinguished both as a linguist and as a theologian. She corresponded in Greek with Bishop Jewel, and translated his *Apologia* from the Latin so correctly, that neither he nor Bishop Parker could suggest a single alteration.'†

His health was very delicate, which made him sedentary and reflective. Of his youth we know little, but that little displays the reflective tendency of his mind. At the age of twelve he discussed the point as to how a juggler could tell the card of which a man thought: he at first ascribed it to a confederacy between the juggler and the servants, till he at last discovered the law of the mind on which the trick depends. We hear also of his leaving his playfellows to examine the cause of an echo which he had observed in a vault. At thirteen he was entered at Trinity College, Cambridge, where he soon felt a profound contempt for the course of study

* See this question of lineage, and a great many other curious points, satisfactorily settled in an article on the Lives of Bacon, *London Review*, Jan. 1836.

† *Edinb. Review*, July 1837, p. 9. This is the brilliant article on Bacon, by Macaulay, which has excited so much attention. It is reprinted in his *Essays*.

pursued there, and an inveterate scorn for Aristotle and his followers. It is said that he there planned his *Novum Organum;* but this is highly improbable. What he did was perhaps to sketch some new scheme of philosophical study, originated by his contempt for that in vogue. There must however be a wide difference between the sketch of a boy, prompted by contempt for reigning opinions, and the wise maturity of his greatest work, the fruit of a life's meditations.

On leaving Cambridge, he visited Paris, Poitiers, and other parts of France, from whence he was recalled on the sudden death of his father. 'Being returned from travaile,' says Dr. Rowley, 'he applyed himself to the study of the Common Law, which he took upon him to be his profession; in which he obtained to great excellency, though he made that (as himself said) but as an accessory, and not as his principall study.'

In 1590 he sat in Parliament as Member for Middlesex. He soon became distinguished as an orator and as a debater. We have the testimony of an admirable judge to assure us that Bacon's oratory was worthy of his other powers. Ben Jonson thus writes: 'There happened, in my time, one noble speaker, who was full of gravity in his speaking. His language, where he could spare or pass by a jest, was nobly censorious. No man ever spoke more neatly, more pressly, more weightily, or suffered less emptiness, less idleness, in what he uttered. No member of his speech but consisted of his own graces. His hearers could not cough or look aside from him without loss. He commanded when he spoke, and had his judges angry or pleased at his devotion.'*

A grave biographical question, namely that of Bacon's political and moral conduct, must be passed over by us without a word of comment, because the question is too complicated and critical for any succinct narrative.† Let us pass on to the year 1616, when Sir Francis Bacon was sworn of the Privy Council; and in March, 1617, on the retirement of Lord Brackley, was appointed Keeper of the Great Seal. His administration was anything but pure.

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* Ben Jonson, *Underwoods*. In the *Discoveries*, Ben also speaks admiringly and affectionately of him.

† In the former edition, Mr. Macaulay's view of this question was adopted; but on the eve of the appearance of that long-promised edition of Bacon's works, in which Mr. Spedding is to give the results of his exhaustive study of this question, it seems desirable not to repeat statements which may turn out erroneous when all the evidence is produced.

He was the tool of Buckingham, who was altogether unscrupulous. On his own account, too, he accepted large presents from persons engaged in Chancery suits. His enemies reckoned his gains in this way at a hundred thousand pounds: an immense sum in those days, and probably exaggerated. His works had spread his fame throughout Europe. He had also been created Baron Verulam; and subsequently Viscount St. Alban's. We have every reason to believe that he valued this title more highly than that of the author of the *Instauratio Magna;* but, as Mr. Macaulay remarks, posterity, in defiance of royal letters-patent, has obstinately refused to degrade Francis Bacon into Viscount St. Alban's.

In the height of this prosperity a terrible reverse was at hand. He was accused of corruption, and was impeached. His remorse and dejection of mind were dreadful. 'During several days he remained in his bed, refusing to see any human being. He passionately told his attendants to leave him—to forget him—never again to name his name—never to remember that there had been such a man in the world.' The charges against him were such, that the King, impotent to save him, advised him to plead guilty. He did so. The sentence he received was severe: a fine of forty thousand pounds, and to be imprisoned in the Tower during the King's pleasure. He was declared incapable of holding any office in the State, or of sitting in Parliament, and was banished for life from the verge of the Court.

This sentence was not executed. He was sent indeed to the Tower, but at the end of the second day he was released. His fine was remitted by the Crown. He was soon allowed to present himself at Court; and in 1624 the rest of his sentence was remitted. He was at liberty to sit in the House of Lords, and was summoned to the next Parliament. He did not however attend: age, infirmity, and perhaps shame, prevented him.

In his retirement he devoted himself to literature; and amongst other works published his wonderful treatise *De Augmentis,* which, though only an expansion of his *Advancement of Learning,* may nevertheless be regarded as a new work.*

'The great apostle of experimental philosophy,' says Mr. Macaulay, 'was destined to be its martyr. It had occurred to him that

* 'I find upon comparison that more than two-thirds of this treatise are a version, with slight interpolation or omission, from the *Advancement of Learning,* the remainder being new matter.'—Hallam, *History of Literature of Europe,* iii. 169.

snow might be used with advantage for the purpose of preventing animal substances from putrefying. On a very cold day, early in spring of the year 1626, he alighted from his coach near Highgate, to try the experiment. He went into a cottage, bought a fowl, and with his own hands stuffed it with snow. While thus engaged, he felt a sudden chill, and was so much indisposed that it was impossible for him to return to Gray's Inn. After an illness of about a week, he expired on the morning of Easter-day, 1626. His mind appears to have retained its strength and liveliness to the end. He did not forget the fowl which had caused his death. In the last letter that he ever wrote, with fingers which, as he said, could not steadily hold a pen, he did not omit to mention that the experiment of the snow had succeeded excellently well.'

Bacon, when dying, did not disguise from himself the mournful fact, that if he had thought profoundly he had acted unworthily. Knowing at once his errors and his greatness, he said, 'For my name and memory, I leave it to men's charitable speeches, and to foreign nations and to the next age.' His confidence was well placed. Leniently as we cannot but think him to have been treated by his contemporaries, posterity has been still more gracious; and the reason is felicitously expressed by Mr. Macaulay: 'Turn where we will, the trophies of that mighty intellect are full in view. *We are judging Manlius in sight of the Capitol.*'

§ II. Bacon's Method.

Bacon is commonly styled the Father of Experimental Philosophy. Was he the first great experimentalist? No. Was he the most successful experimentalist? No. Was he the discoverer of some of those great laws, the application of which is the occupation of succeeding generations—was he a Copernicus, a Galileo, a Kepler, a Torricelli, a Harvey, or a Newton? No.

He owes this title to his Method, as will be understood after the following sketch, in which we shall follow Professor Playfair's exposition in his *Dissertation on the Progress of Physical Science,* prefixed to the *Encyclopædia Britannica.*

Before laying down the rules of his Method, Bacon proceeds to enumerate the causes of error—the *Idols,* as he terms them, in his figurative language, or false divinities, to which the mind had so long been accustomed to bow.* He considered this enumeration

* Mr. Hallam was the first to point out the mistake which all modern

as the more necessary, that the same idols were likely to return, even after the reformation of science.

These idols he divides into four classes, viz. :—

Idola Tribûs	Idols of the Tribe.
Idola Specûs	Idols of the Den.
Idola Fori	Idols of the Forum.
Idola Theatri	Idols of the Theatre.

1. The *Idols of the Tribe* are the causes of error founded on human nature in general. 'The mind,' he observes, 'is not like a plane mirror, which reflects the images of things exactly as they are; it is like a mirror of an uneven surface, which combines its own figure with the figures of the objects it represents.'

Among the idols of this class we may reckon the propensity which there is in all men to find a greater degree of order, simplicity, and regularity, than is actually indicated by observation. Thus as soon as men perceived the orbits of the planets to return into themselves, they immediately supposed them to be perfect circles, and the motion in those circles to be uniform; and to these hypotheses the astronomers and mathematicians of all antiquity laboured incessantly to reconcile their observations.

The propensity which Bacon has here characterized may be called the *spirit of system*.

2. The *Idols of the Den* are those which spring from the peculiar character of the individual. Besides the causes of error common to all mankind, each individual has his own dark cavern, or den, into which the light is imperfectly admitted, and in the obscurity of which a tutelary idol lurks, at whose shrine the truth is often sacrificed.

Some minds are best adapted to mark the differences of things, others to catch at the resemblances of things. Steady and profound understandings are disposed to attend carefully, to proceed slowly, and to examine the most minute differences; while those that are sublime and active are ready to lay hold of the slightest resemblances. Each of these easily runs into excess; the one by catching continually at distinctions, the other at affinities.

3. The *Idols of the Forum* are those which arise out of the intercourse of society, and those also which arise from language.

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writers have made respecting the meaning of the word Idol, as used by Bacon; which does not mean *idol*, but *false appearance* (εἴδωλον). See the passage in Hallam's *Lit. of Europe*, iii. 194–6.

Men believe that their thoughts govern their words; but it also happens by a certain kind of reaction that their words frequently govern their thoughts. This is the more pernicious, that words, being generally the work of the multitude, divide things according to the lines most conspicuous to vulgar apprehensions. Hence, when words are examined, few instances are found in which, if at all abstract, they convey ideas tolerably precise and defined.

4. The *Idols of the Theatre* are the deceptions which have arisen from the dogmas of different schools.

As many systems as existed, so many representations of imaginary worlds had been brought upon the stage. Hence the name of *Idola Theatri.* They do not enter the mind imperceptibly like the other three; a man must labour to acquire them, and they are often the result of great learning and study.

After these preliminary discussions Bacon proceeds, in the Second Book of his *Organum,* to describe and exemplify the nature of induction.

The first object must be to prepare a history of the phenomena to be explained, *in all their modifications and varieties.* This history is to comprehend not only all such facts as spontaneously offer themselves, but all *the experiments instituted for the sake of discovery,* or for any of the purposes of the useful arts. It ought to be composed with great care; the facts accurately related and distinctly arranged; their authenticity diligently examined; those that rest on doubtful evidence, though not rejected, yet noted as uncertain, with the grounds of the judgment so formed. This last is very necessary, for facts often appear incredible only because we are ill-informed, and cease to appear marvellous when our knowledge is further extended. This record of facts is *Natural History.*

The Natural History being prepared of any class of phenomena, the next object is to discover, by a comparison of the different facts, the *cause* of these phenomena, or, as Bacon calls it, the *form.* The form of any quality in a body is something convertible with that quality; that is, where it exists the quality exists: thus, if transparency in bodies be the thing inquired after, the *form* of it is something found wherever there is transparency. Thus *form* differs from *cause* in this only: we call it form or essence when the effect is a permanent quality; we call it *cause* when the effect is a change or an event.

Two other subjects, subordinate to *forms,* but often essential to the knowledge of them, are also occasionally subjects of investiga-

tion. These are the latent process, *latens processus;* and the latent schematism, *latens schematismus.* The former is the secret and invisible progress by which sensible changes are brought about, and seems in Bacon's acceptation to involve the principle since called the *law of continuity,* according to which no change however small can be effected but in *time.* To know the relation between the time and the change effected in it would be to have a perfect knowledge of the latent process. In the firing of a cannon, for example, the succession of events during the short interval between the application of the match and the expulsion of the ball, constitutes a latent process of a very remarkable and complicated nature, which however we can now trace with some degree of accuracy.

The latent schematism is that invisible structure of bodies on which so many of their properties depend. When we inquire into the constitution of crystals, or into the internal structure of plants, etc., we are examining into the latent schematism.

In order to inquire into the form of anything by induction, having brought together all the facts, we are to begin with considering what things are thereby *excluded* from the number of possible forms. This conclusion is the first part of the process of induction. Thus, if we are inquiring into the quality which is the cause of transparency in bodies; from the fact that the diamond is transparent, we immediately exclude rarity or porosity as well as fluidity from these causes, the diamond being a very solid and dense body.

Negative instances, or those where the *form* is wanting, to be also collected.

That glass when pounded is not transparent is a negative fact when the form of transparency is inquired into; also that collections of vapours have not transparency. The facts thus collected, both negative and affirmative, should, for the sake of reference, be reduced to tables.

Bacon exemplifies his Method on the subject of Heat; and though his collection of facts is imperfect, his method of treating them is extremely judicious,* and the whole disquisition highly interesting.

After a great many exclusions have been made, and left but few principles common to every case, one of these is to be assumed as the cause; and by reasoning from it synthetically we are to try if

* This is Playfair's judgment; a different opinion will presently be quoted from John Mill.

it will account for the phenomena. So necessary did this exclusive process appear to Bacon that he says, 'It may perhaps be competent to angels or superior intelligences to determine the form or essence directly, by affirmations from the first consideration of the subject; but it is certainly beyond the power of man, to whom it is only given to proceed at first by negatives, and in the last place to end in *affirmatives*, after the exclusion of everything else.'

There is, however, great difference in the value of facts. Some of them show the thing sought for in the highest degree, some in the lowest; some exhibit it simple and uncombined, in others it appears confused with a variety of circumstances. Some facts are easily interpreted, others are very obscure, and are understood only in consequence of the light thrown on them by the former. This led Bacon to his consideration of *Prerogative Instances*, or the comparative value of facts as means of discovery. He enumerates twenty-seven different species; but we must content ourselves with giving only the most important.

I. *Instantiæ solitariæ:* which are either examples of the same quality existing in two bodies otherwise different, or of a quality differing in two bodies otherwise the same. In the first instance the bodies differ in all things but one; in the second they agree in all but one. Thus if the cause or *form* of colour be inquired into, *instantiæ solitariæ* are found in crystals, prisms, drops of dew, which occasionally exhibit colour, and yet have nothing in common with the stones, flowers, and metals which possess colour permanently, except the colour itself. Hence Bacon concludes that colour is nothing else than a modification of the rays of light produced in the first case by the different degrees of incidence; and second by the texture or constitution of the surface of bodies. He may be considered as very fortunate in fixing on these examples, for it was by means of them that Newton afterwards found out the composition of light.

II. The *instantiæ migrantes* exhibit some property of the body passing from one condition to another, either from less to greater or from greater to less; arriving nearer perfection in the first case, or verging towards extinction in the second.

Suppose the thing inquired into were the cause of whiteness in bodies; an *instantia migrans* is found in glass, which entire is colourless, but pulverized becomes white. The same is the case with water unbroken or dashed into foam.

III. The *instantiæ ostensivæ* are the facts which show some par-

ticular property in its highest state of power and energy, when it is either freed from impediments which usually counteract it, or is itself of such force as entirely to repress those impediments.

If the weight of air were inquired into, the Torricellian experiment, or the barometer, affords an *ostensive instance*, where the circumstance which conceals the weight of the atmosphere in common cases, namely the pressure of it in all directions, being entirely removed, that weight produces its full effect, and sustains the whole column of mercury in the tube.

IV. The *instances* called *analogous* or *parallel* consist of facts between which a resemblance or analogy is visible in some particulars, notwithstanding great diversity in all the rest. Such are the telescope and microscope compared to the eye. It was the experiment of the camera obscura which led to the discovery of the formation of images of external objects in the bottom of the eye by the action of the crystalline lens, and other humours of which the eye is formed.

V. *Instantiæ comitatûs:* examples of certain qualities which always accompany one another. Such are flame and heat: flame being always accompanied by heat, and the same degree of heat in a given substance being always accompanied with flame.

Hostile instances, or those of perpetual separation, are the reverse of the former. Thus transparency and malleability in solids are never combined.

VI. The *instantia crucis.* When in any investigation the understanding is placed *in æquilibrio,* as it were, between two or more causes, each of which accounts equally well for the appearances as far as they are known, nothing remains to be done, but to look out for a fact which can be explained by one of these causes and not by the other. Such facts perform the office of a cross, erected at the separation of two roads, to direct the traveller which to take: hence called *crucial instances.*

The *experimentum crucis* is of such weight in matters of induction, that in all those branches of science where it cannot be resorted to (an experiment being out of our power and incapable of being varied at pleasure) there is often a great want of conclusive evidence.

§ III. The Spirit of Bacon's Method.

We may now resume the question of Bacon's claim to the title of Father of Experimental Science. That which distinguishes his conception of philosophy from all previous conceptions is the systema-

tization of graduated Verification, as the sole Method of research. Others before him, notably Albertus Magnus, had insisted on some parts of the experimental Method; his great predecessor, and namesake, Roger Bacon had, in the *Opus Majus*, insisted on experience as the truest guide, and had distributed the causes of error under four heads (Authority, Custom, Vulgar Prejudice, and False Science), but no one had co-ordinated into a compact body of doctrine all the elements of the Inductive Method; and it is in this co-ordination that Bacon's great merit lies. Roger Bacon had said that 'experience alone gives accurate knowledge. Reasoning concludes, but establishes nothing; even mathematical demonstration gives no complete and certain conviction without this sanction. But this experimental science is entirely unknown to the many. It has three grand prerogatives relatively to the other kinds of knowledge. The first is, that experiment proves and verifies by its investigations the highest propositions which the other sciences can present. The second is, that this method, which alone merits the name of *mistress of speculative knowledge*, can alone attain to those sublime truths which other sciences cannot reach; in experimental truths the mind must not seek for the reason of things before the testimony of facts, nor reject those facts because it cannot justify them by argument. The third prerogative is so peculiar to this method that it is independent of its relations with the others: it consists in two points, namely, in the knowledge of the future, the present, and the past, and in the admirable operations in which it surpasses judicial astrology.'* Many—from Socrates downwards—had insisted on Induction; but the Induction they conceived was that which Bacon calls *inductio per enumerationem simplicem*, and which consists in 'ascribing the character of general truths to all propositions which are true in every instance that we happen to know of:' an induction perpetually made in the loose latitude of common talk, and in the less pardonable laxity of common literature. It is the *natural and instinctive* action of the mind, and is thus distinguished from the *circumspect* Method of Science. The real merit of Bacon's concep-

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* This passage, translated from M. Rousselot's *Études*, iii. 189, is not properly Bacon's, but an abstract of the doctrines developed and exemplified in the sixth part of the *Opus Majus*, pp. 445–477 of the London edition, 1733. The four causes of error are mentioned in p. 2 of the same edition: 'Fragilis et indignæ auctoritatis exemplum, consuetudinis diuturnitas, vulgi sensus imperiti, et propriæ ignorantiæ occultatio cum ostentatione sapientiæ apparentis.'

tion was his accurate detection of this natural source of error, and his insistance on the wider and more circumspect Method of Verification.

He did not content himself with telling men to make observations and experiments: he told them *how* observations and experiments ought to be made. He did not content himself with stating the proper mode of investigation to be that of Induction founded upon facts: he distinguished proper from improper inductions—the 'interrogation' from the 'anticipation' of Nature.

He did this, and he did more. His Method may be said to have two parts: the one, that precise system of rules we have just quoted; the other, that wise and pre-eminently scientific spirit which breathes through his works. The latter is expressed in wise and weighty aphorisms which form perpetual texts for philosophic writers, and reveal the magnificence and profundity of his intellect. It is in these he shows how completely he saw through the false methods of his day, and how justly he is entitled the Father of Positive Science.

These aphorisms form, as we have said, perpetual texts. They are quoted on all occasions when Method is treated of. We cannot however resist quoting a half-dozen of them here, because of their exceeding value, and of their fitness as illustrations of his greatness:—

I. Man, the minister and interpreter of Nature, can act and understand in as far as he has, either in fact or in thought, observed the order of Nature; more he can neither know nor do.

II. The real cause and root of almost all the evils in science is this: *that, falsely magnifying and extolling the powers of the mind,* we seek not its real helps.

III. There are two ways of searching after and discovering truth: the one, from sense and particulars, rises directly to the most general axioms, and resting upon these principles, and their unshaken truth, finds out intermediate axioms, and this is the method in use; but the other raises axioms from sense and particulars *by a continued and gradual ascent,* till at last it arrives at the most general axioms, which is the true way, but hitherto untried.

IV. The understanding, when left to itself, takes the first of these ways; for the mind *delights in springing up to the most general axioms, that it may find rest;* but after a short stay there, *it disdains experience,* and these mischiefs are at length increased by logic, for the ostentation of disputes.

V. The natural human reasoning we, for the sake of clearness,

call the anticipation of nature, as being a rash and hasty thing; and the reason duly exercised upon objects, we call the interpretation of nature.

VI. It is false to assert that human sense is the measure of things, since all perceptions, both of sense and mind, are *with relation to man, and not with relation to the universe*;* but the human understanding is like an unequal mirror to the rays of things, which, *mixing its own nature with the nature of things, distorts and perverts them.*

We need only consider these half-dozen aphorisms to see the *positive* tendency of his speculations; and the greater the attention we bestow on his writings, the more is this fact pressed on our notice. His mind was antipathetic to all metaphysics. Neither the ingenuities of logicians, nor the passionate earnestness of theologians, in that age of logicians and theologians, could lure him from his path. 'He lived in an age,' says Mr. Macaulay, 'in which disputes on the most subtle points of divinity excited an intense interest throughout Europe, and nowhere more than in England. He was placed in the very thick of the conflict. He was in power at the time of the Synod of Dort; and must for months have been daily deafened with talk about election, reprobation, and final perseverance; yet we do not remember a line in his works from which it can be inferred that he was either a Calvinist or an Arminian. While the world was resounding with the noise of a disputatious theology and a disputatious philosophy, the Baconian School, like Allworthy seated between Thwackum and Square, preserved a calm neutrality, half scornful, half benevolent, and, content with adding to the sum of practical good, left the war of words to those who liked it.'

It may not at once be apparent how eminently scientific a spirit is shown in Bacon's separation of Science from Theology; but a slight reflection will convince us that, at such an epoch, such a conception was wonderful. The persecution of Galileo by the Church, and his recantation, were fresh in every one's memory; they suffice to show that Religion was still considered the arbiter of Philosophy and Science; nor is this notion yet extinct. The objections raised against the geologists still operate as a powerful obstacle to the universal acceptation of the science; and similar objections constantly

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* This is Dr. Shaw's translation. The original is 'sunt ex analogiâ hominis, non ex analogiâ universi,' which is intelligible and expressive enough, but difficult to render.

obstruct our scientific progress in other departments. This tendency is frequently deplored; perhaps it might be checked in some degree if it were shown to violate a fundamental canon of all sound philosophy, a canon which may be thus expressed: *No speculation should be controlled by an order of conceptions not essentially presupposed by it.* For example, every one feels the absurdity of controlling Poetry by Mathematics; because Poetry in no sense presupposes Mathematics, and derives no assistance from them; but Physics can be controlled by Mathematics, because in Physics there is an essential dependence on Mathematics. We cannot control a chemical speculation by any physiological laws; but conversely we can, and do, control physiological speculations by chemical laws. The canon, thus expounded, is readily applied to the old disputes between Religion and Science. Theology belongs to a totally different order of conceptions from that of Science. Its aims are different, its methods are different, its proofs are different. Only in so far as Theology comes into the circle of other sciences, can it be legitimately controlled by them; for instance, when Theology rests any claims on historical evidence, *then, and to that extent,* must it be controlled by historical criticism; when it rests any claim on scientific evidence, then and to that extent, must it submit to scientific control; just as Poetry, if dealing at all with Mathematical problems, must do so correctly, or submit to the criticism of mathematicians. But when the Church declares against Galileo; when the perhaps well-meaning but certainly unwise declaimers of the present day oppose Geology on theological grounds, the error is of the same nature as that of a poet who should assail Mathematics on poetical grounds. There can be no fair disputes between Theology and Science. Each pursues its own path; the one may push aside the other; they cannot argue, for they have no common ground. In Theology there may be disputes, as between Catholic and Protestant, Lutheran and Zuinglian, Presbyterian and Quaker, because all proceed from the same starting-point, all invoke the same evidence; and in Science there may be disputes, as between Chemists, Geologists, and Physiologists, because, all employing the same methods, the same kind of evidence, there is common ground for them to fight on. But what a dissonance of words, expressive of no less dissonance in ideas, in the phrases 'Lutheran Botany' and 'Presbyterian Optics,' 'Catholic Chemistry' and 'Evangelical Anatomy'! Yet it is clear that if Theology is to interfere with and control the speculations of Science, the various theological sects may also control it according to

their various views. We therefore see in Bacon's rigorous separation of the two disparate paths of inquiry a profoundly philosophical tendency. He took another and far greater step when he emphatically proclaimed that Physics was 'the mother of all the sciences.' That this was greatly in advance of his age may be gathered from the fact of its to this day remaining a heresy; the notion of ethics and politics having the same methods, and being susceptible of the same treatment as physics, is by the majority looked upon as fanciful, if not absurd.

Speaking of the causes of errors in preceding philosophers, Bacon says, 'A second cause of very great moment is that through all those ages wherein men of genius and learning principally or even moderately flourished, the smallest part of human industry has been spent upon natural philosophy, though this ought to be esteemed as the great mother of the sciences; for all the rest, if torn from this root, may perhaps be polished and formed for use, but can receive little increase. . . .

'But let none expect any great promotion of the sciences, especially in their effective part, *unless natural philosophy be drawn out to particular sciences; and again, unless these particular sciences be brought back again to natural philosophy.* From this defect it is that astronomy, optics, music, many mechanical arts, and what seems stranger, *even moral and civil philosophy and logic,* rise but little above their foundations, and only skim over the varieties and surfaces of things, viz. because after these particular sciences are formed and divided off, they are no longer nourished by natural philosophy, which might give them strength and increase; and therefore no wonder if the sciences thrive not, when separated from their roots.'*

It was in consequence of his having so profoundly penetrated the very nature of science that Bacon was able 'to lay down the rules for the conduct of experimental inquiries, before any such inquiries had yet been instituted. The power and compass of a mind which could form such a plan beforehand, and trace not merely the outline, but many of the most minute ramifications of sciences which did not yet exist, must be an object of admiration to all succeeding ages.'†

In his separation of Science from Metaphysics and Theology, and in his conception of Physics as the mother of all the sciences, we

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* *Novum Organum*, i. Aph. 79, 80. † Playfair.

see the eminently *positive* spirit of his works; and this makes him so entirely a modern. He was indeed thoroughly opposed to antiquity, and epigrammatically exposed the fallacy of undue reverence. 'The opinion which men entertain of antiquity is a very idle thing,' said he, 'and almost incongruous to the word; for the old-age and length of days of the world should in reality be accounted antiquity, and ought to be attributed to our own times, not to the youth of the world which it enjoyed among the ancients; for that age, though with respect to us it be ancient and greater, yet with regard to the world it was new and less.'*

He bore testimony to the genius of several of the ancients, while he declared that their genius availed them nothing, because wrongly employed; adding, in his usual happy style, 'a cripple in the right way may beat a racer in the wrong one. Nay, the fleeter the racer is, who has once missed his way, the farther he leaves it behind.' 'We have an example,' he says, 'in Aristotle, who corrupted natural philosophy with Logic, . . . being all along more solicitous how men might defend themselves by answers, and advance something that should be *positive in words*, than to *come at the inward truth of nature*. . . . It is true his books of animals, problems, and other pieces, make frequent use of experiments; but then he first pronounced without their assistance, and *did not duly consult experience in forming his degrees and axioms;* but after he had passed judgment according to his own humour, he winds experience round, and leads her captive to his own opinions. . . . Another great reason of the slow progress of the sciences is this: that it is impossible to proceed well in a course where the end is not rightly fixed and defined. Now, the true and genuine end of the sciences is no other than to enrich human life with new inventions and new powers. . . . Fruits and discoveries of works are as the vouchers and securities for the truth of philosophies. But from the philosophies of the Greeks, and their descents through particular sciences, now for the space of so many years scarce a single experiment can be produced tending to accommodate or improve the state of man, that may be justly attributed to the speculations and doctrines of their philosophy. . . . Therefore, since the end of the sciences has not

* It is a point of some interest to ascertain from whom Bacon got the aphorism he frequently quotes: 'Antiquity the youth of the world.' The *idea* is in Seneca, and is thus expressed by Roger Bacon: 'Quanto juniores tanto perspicaciores, quia juniores, posteriores successione temporum, ingrediuntur labores priorum.'—*Opus Majus*, pars i. cap. 6. p. 9.

hitherto been well defined by any one, we need not wonder if men have erred and wandered in the things subservient to the proper end. Again, if this end had been rightly proposed, yet men *have chosen a very wrong and impassable way to proceed in.* And it may strike any one with astonishment who duly considers it, that no mortal should hitherto have taken care to open and prepare *a way for the human understanding,* from sense and a well-conducted experience; but that all things should be left either to the darkness of tradition, the giddy agitation and whirlwind of argument, or else to the uncertain waves of accident, or a vague and uninformed experience. Let any one soberly consider what the way is which men have accustomed themselves to, in the inquiry and discovery of anything, and he will doubtless find that the manner of invention most commonly used is simple and unartful: or on no other than this, viz. when a person goes upon an inquiry, in the first place he searches out and peruses what has been said upon it by others; in the next place adds his own thoughts thereto; and lastly, with great struggle of the mind, solicits and invokes, as it were, his own spirit to deliver him oracles; which is a method entirely destitute of foundation, and rolls wholly upon opinions. Others may call in the assistance of logic; but this is wholly a nominal assistance, for logic does not discover the principles and capital axioms upon which arts are built, but only such as seem agreeable thereto; and when men are curious and earnest with it, to procure proofs, and discover principles or first axioms, it refers them to faith, or puts them off with this trite and common answer—that every artist must believe in his own art.'

Dugald Stewart* well says, 'that the idea of the *object* of physical science (which may be justly regarded as the groundwork of Bacon's *Novum Organum*) differs essentially from what was entertained by the ancients, according to whom "Philosophy is the science of *causes.*" If indeed by *causes* they had meant merely the constant forerunners or antecedents of events, the definition would have coincided nearly with the statement which I have given. But it is evident that by *causes* they meant such antecedents as were *necessarily* connected with the effects, and from the knowledge of which the effects might be foreseen and demonstrated. And it was owing to this confusion of the proper objects of Physics and Meta-

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* In the excellent Chapter on Induction, *Philos. of Mind,* vol. ii. ch. iv. sect. 1.

physics that, neglecting the observation of facts exposed to the examination of their senses, they vainly attempted, by synthetical reasoning, to deduce, as necessary consequences from their supposed causes, the phenomena and laws of nature.'

Dugald Stewart also quotes Aristotle's express declaration that to know the *physical cause* is also to know the *efficient cause;* and observes, that from this disposition to confound *efficient* with *physical* causes may be traced the greater part of the theories recorded in the history of philosophy. It is this which has given rise to the attempts, both in ancient and modern times, to account for all the phenomena of moving bodies by *impulse;* and it is this also which has suggested the simpler expedient of explaining them by the agency of *minds* united with the particles of matter. To this last class of theories may also be referred the explanations of physical phenomena by such causes as sympathies, antipathies, nature's horror of a vacuum, etc., and other phrases borrowed by analogy from the attributes of animated beings.

It was Bacon's constant endeavour, as it has been the cause of his enduring fame, to teach men the real object of Science, and the scope of their faculties, and to furnish them with a proper Method whereon these faculties might be successfully employed. He thus not only stands clearly out in history as the exponent of the long-agitated antagonism to all the ancient and scholastic thinkers, but also as the exponent of the rapidly increasing tendency towards positive science. He is essentially modern. All his predecessors, even in their boldest attacks upon ancient philosophy, were themselves closely allied to the spirit of that which they opposed. Ramus is the child of Aristotle, though he raised his hand against his father. But Bacon was modern in culture, in object, and in method. He attacked the ancient philosophy without having thoroughly understood it: he attacked it because he saw that a method which conducted great intelligences to such absurd conclusions as those then in vogue must necessarily be false.

'Whence can arise,' he asks, 'such vagueness and sterility in all the physical systems, which have hitherto existed in the world? It is not certainly from anything in nature itself; for the *steadiness and regularity of the laws by which it is governed clearly mark them out as objects of precise and certain knowledge.*

'Neither can it arise from any want of ability in those who have pursued such inquiries, many of whom have been men of the highest talent and genius of the ages in which they lived; and it

can therefore arise from nothing else but the perverseness and *insufficiency of the methods which have been pursued.* Men have sought to make a world from their own conceptions, and to draw from their own minds all the materials which they employed; but if, instead of doing so, they had consulted experience and observation, they would have had facts, and not opinions, to reason about, and might have ultimately arrived at the knowledge of the laws which govern the material world.

'As things are at present conducted, a sudden transition is made from sensible objects and particular facts to *general propositions, which are accounted principles,* and round which, as round so many fixed poles, disputation and argument continually revolve. From the propositions thus hastily assumed, all things are derived by a *process compendious and precipitate,* ill suited to discovery, but wonderfully accommodated to debate.

'The way that promises success is the reverse of this. It requires that we should *generalize slowly,* going *from particular things* to those that are *but one step more general;* from those to others of still *greater extent,* and so on to such as are *universal.* By such means we may hope to arrive at principles, not vague and obscure, but luminous and well-defined, such as Nature herself will not refuse to acknowledge.'

In this pregnant passage he has clearly enough pointed out the position which his philosophy was to occupy. 'Many other philosophers,' as Professor Macvey Napier remarks, 'both ancient and modern, had referred to observation and experiment in a cursory way, as furnishing the materials of physical knowledge; but no one before him had attempted to *systematize the true method of discovery;* or to prove that the inductive is the *only* method by which the genuine office of philosophy can be exercised, and its genuine ends accomplished. It has sometimes been stated that Galileo was, at least, in an equal degree with Bacon, the father of the Inductive Logic; but it would be more correct to say that his discoveries furnished some fortunate illustrations of its principles. To explain these principles was no object of his; nor does he manifest any great anxiety to recommend their adoption with a view to the general improvement of science. The Aristotelian disputant, in his celebrated *Dialogues,* is made frequently to appeal to observation and experiment; but the interlocutor, through whom Galileo himself speaks, nowhere takes occasion to distinguish between the flimsy inductions of the Stagirite in regard to the objects

in dispute, and those which he himself had instituted, or to hint at the very different complexion which philosophy must assume, according as the one kind or the other is resorted to.'*

§ IV. Was the Method New and Useful?

Bacon's Method, and the scientific spirit which animates his works, have been indicated in the foregoing pages. His philosophical importance is to be measured by that Method and that spirit; not by any scientific discoveries. A mind so richly stored could not fail to illustrate his writings with manifold graces of style, and with pregnant aphorisms. Accordingly, his Method having been established, and been superseded, having done its work nothing remains for our profit but these very graces and aphorisms. The great reformer may excite our admiration, *historically;* his Method excites no admiration for its present intrinsic value. We have a more perfect Method; the processes of scientific investigation are better understood; but we are never in communion with his vast and penetrating intellect without acknowledging his greatness; for his remarks are often as applicable now as they were when first written. Hence the frequency of quotations from Bacon; and these quotations, as Dr. Whewell observes, are more frequently made by metaphysical, ethical, and even theological writers, than they are by the authors of works on Physics. For the present generation, then, whatever the value of Bacon's works, Bacon's Method is useless. Some modern writers have asserted that it was always useless; and this assertion has been supported by arguments so plausible, that they demand attention.

The objections made to Bacon's Method are of three kinds. 1st. It was nothing new; 2nd. It was useless as a guide to investigation; 3rd. It was already latent in the scientific spirit then abroad, and must have been elicited by some one, sooner or later.

'It was nothing new.' This is a very frequent objection, and is urged by the Count Joseph de Maistre and Mr. Macaulay. The former has written a long chapter to prove that Bacon's Induction is nothing more than the Induction of Aristotle; and Mr. Macaulay, who adopts the same opinion, devotes several vivacious pages to show that everybody unconsciously practises this inductive Method. M. de Maistre's *Examen de la Philosophie de Bacon* is a vehement attack, written with the celebrated author's usual vivacity, but

* *On the Scope and Influence of the Philos. Writings of Bacon:* Trans. of the Royal Society of Edinburgh, 1818.

with more than his usual arrogance and vehemence. As there are many things in Bacon hasty, inexact, or partaking of the prejudices and errors of his age, his antagonist is at no loss to find matter for ridicule; but when he treats of Bacon's Method and Spirit as contemptible puerilities, he only excites a smile in the dispassionate reader. His arguments against Bacon's Method are, first, that Aristotle had analyzed it before him; secondly, that Induction is only one form of the Syllogism.

It is true that Aristotle told us what Induction was; but it is not true that he analyzed it, as Bacon has done; nor did he ever pronounce it to be *the* Method of inquiry: on the contrary, it only served him as *one* of the means of ascertaining truth, and was not so important in his eyes as the Syllogism. Bacon asserts Induction to be the only Method; and has no words too strong to express his scorn of the Syllogism 'which may catch the assent, but lets the things slip through.' Dugald Stewart observes that we might as well declare that the ancients had anticipated Newton because they too used the word 'attraction,' as that Aristotle anticipated Bacon because he too speaks of 'Induction.'* This is, however, going too far the other way. In our Chapter on the Stagirite we have indicated the relation in which the two conceptions stand to each other.

M. de Maistre says that Induction and Syllogism are the same. 'At bottom, what is Induction? Aristotle clearly saw it: *It is a syllogism without the middle term*—ἔστι δὲ ὁ τοιοῦτος συλλογισμὸς τῆς πρώτης καὶ ἀμέσου προτάσεως. (*Anal. Prior.* ii. 12.) What does it signify whether I say, *Every simple being is indestructible by nature; now my soul is a simple being, therefore*, etc.; or whether I say directly, *My soul is simple, therefore it is indestructible.* In either case it is the syllogism which is virtually in the induction, as it is in the enthymem.'

Now it is quite true that every induction may be thrown into the form of a syllogism by supplying the major premiss; and it is this which led Archbishop Whately to conclude that Induction itself is but a peculiar case of ratiocination, and that the universal type of all reasoning is the syllogism. We cannot but agree with John Mill in holding precisely the reverse opinion, and believing that ratiocination itself is resolvable into Induction.† Be this as it may, M. de Maistre has afforded us an illustration of the difference between Aristotle and Bacon in the very passage quoted.

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* *Philos. of Mind*, vol. ii. ch. iv. sect. 2.

† See *System of Logic*, vol. i. pp. 372–3.

If every induction can be thrown into the form of a syllogism, by supplying the major premiss, it is in the way this major premiss is established that we must seek the real difference between the Syllogistic and Inductive Methods: and that difference is the difference between *à priori* and *à posteriori*. Every one who has read Bacon knows that his scorn for the Syllogism is not scorn for it as a *form of ratiocination*, but as a *means of investigation*. He objects to our proceeding to deduce from an axiom not accurately and inductively obtained, consequences which may very well be contained in the axiom, although having no relation to the truth of things. 'The axioms in use, being derived from slender experience and a few obvious particulars, are generally applied in a corresponding manner; no wonder they lead not to new particulars.'* Again: 'Syllogism consists of propositions, propositions of words, and words are the signs of notions; therefore, if our *notions, the basis of all*, are confused, and *over-hastily taken from things*, nothing that is built upon them can be firm; *whence our only hope rests upon genuine Induction*.'†

Nothing can be more explicit. Bacon very well knew the difference between his Method and that of the Aristotelians; and he very well expressed this difference. To turn round upon him and say all Induction is itself but Syllogism, is mere evasion. He was not giving a logical analysis of the mind; he was warning men against long-standing errors, and pointing out to them the path of truth.

Mr. Macaulay's arguments are of a different stamp. To us they are only ingenious and plausible; yet so ingenious and so plausible as to gain many followers. They are mostly true as far as they go, but do not appear to us to go to the real point. We shall select the main parts of his opposition:—

'The inductive method has been practised ever since the beginning of the world, by every human being. It is constantly practised by the most ignorant clown, who by this method is led to the conclusion, that if he sows barley he shall not reap wheat. A plain man finds his stomach out of order. He never heard of Lord Bacon's name. But he proceeds in the strictest conformity with the rules laid down in the second book of the *Novum Organum*, and satisfies himself that mince-pies have done the mischief. "I ate mince-pies on Monday and Wednesday, and was kept awake by

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* *Novum Organum*, Aph. 25. † *Ibid.*, Aph. 14.

indigestion all night." This is the *comparentia ad intellectum instantiarum convenientium.* "I did not eat any on Tuesday and Friday, and I was quite well." This is the *comparentia instantiarum in proximo quæ natura data privantur.* "I ate very sparingly of them on Sunday, and was very slightly indisposed in the evening. But on Christmas-day I almost dined on them, and was so ill that I was in some danger." This is the *comparentia instantiarum secundum magis et minus.* "It cannot be the brandy which I took with them; for I have drunk brandy for years, without being the worse for it." This is the *rejectio naturarum.* We might easily proceed, but we have already sufficiently explained our meaning.'

The answer to this is, that Induction being the process of all reasoning, of course so long as men have reasoned they have reasoned inductively. But there is simple and incautious Induction, and there is cautious methodical Induction,—instinct and science; in ordinary cases, men pursue the induction *per enumerationem simplicem;* in scientific investigations they must pursue a very different method; and at the time Bacon wrote, almost all philosophical and scientific speculations were vitiated by the incorrect method.

'Those who object to the importance of Bacon's precepts in philosophy,' says Mr. Hallam, 'that mankind have practised many of them immemorially, are rather confirming their utility than taking off much from their originality, in any fair sense of the term. Every logical method is built on the common faculties of human nature, which have been exercised since the creation, in discerning—better or worse—truth from falsehood, and inferring the unknown from the known. That men might have done this more correctly is manifest from the quantity of error into which, from want of reasoning well on what came before them, they have habitually fallen. In experimental philosophy, to which the more special rules of Lord Bacon are generally referred, there was a notorious want of that very process of reasoning which he supplied.'* 'Nothing can be more certain,' as Professor Napier observes, 'than that Bacon rests the whole hopes of his philosophy on the *novelty* of his logical precepts; and that he uniformly represents the ancient philosophers, particularly Aristotle, as having been wholly regardless of the inductive method in their physical inquiries. Bacon does not indeed say that the ancient philosophers never employed them-

* *Hist. of Lit. of Europe,* iii. 182.

selves in observing Nature; but he maintains that there is a wide difference between observation, as it was employed by them, and the art of observing for the purposes of philosophical discovery.'*

Men in Bacon's time reasoned like the facetious judge in Mr. Macaulay's anecdote, 'who was in the habit of jocosely propounding, after dinner, a theory, that the cause of the prevalence of Jacobinism was the practice of bearing three names. He quoted, on the one side, Charles James Fox, Richard Brinsley Sheridan, John Horne Tooke, John Philpot Curran, Samuel Taylor Coleridge, Theobald Wolfe Tone. These were *instantiæ convenientes*. He then proceded to cite instances *absentiæ in proximo*—William Pitt, John Scott, William Wyndham, Samuel Horsley, Henry Dundas, Edmund Burke. He might have gone on to instances *secundum magis et minus*. The practice of giving children three names has been for some time a growing practice, and Jacobinism has also been growing. The practice of giving children three names is more common in America than in England. In England we have still a King and a House of Lords; but the Americans are Republicans. The *rejectiones* are obvious. Burke and Wolfe Tone were both Irishmen; therefore the being an Irishman is not the cause. In this way our inductive philosopher arrives at what Bacon calls the *vintage*, and pronounces that having three names is the cause of Jacobinism.'

This is a very good theory for a jocular one; but we are surprised to find so acute a writer as Mr. Macaulay speaking of it in the terms he does: 'Here is an induction corresponding with Bacon's analysis, and ending in a monstrous absurdity. In what then does this induction differ from the induction which leads us to the conclusion that the presence of the sun is the cause of our having more light by day than by night? The difference evidently is, *not in the kind of instances, but in the number of instances*; that is to say, the difference is not in that part of the process for which Bacon has given precise rules, but in a circumstance for which no precise rule can possibly be given. If the learned author of the theory about Jacobinism had enlarged either of the tables a little, his system would have been destroyed. The names of Tom Paine and William Windham Grenville would have been sufficient to do the work.'

We especially dissent from the clause printed in italics, which

* *Dissertation on the Scope and Influence of Bacon's Writings*, p. 13. See also a passage to the same effect in Herschel's *Discourse*, pp. 113, 114, which we do not quote, because the work is in everybody's hands.

seem to us at variance with all sound Induction. It is precisely the *kind* of instances adduced in the theory, which makes the theory absurd. The whole theory is a gross example of 'causation inferred from casual conjunction, without any presumption arising from known properties of the supposed agent: which is the characteristic of empiricism.' Although in this theory there has been a certain superficial elimination employed, yet that elimination is obviously too incomplete for any satisfactory result. Mr. Macaulay subsequently asks, What number of instances is sufficient to justify belief? After how many experiments would Jenner have been justified in believing vaccination to be a safeguard against the smallpox? We answer that the *number* of instances depends on the *kind* of instances, and on the *theory* which presides over their collection. In proportion as the facts adduced are complex, must the theory which would explain them be consistent with all other known truths, before the facts themselves can have any significance.

Bacon's originality is in no way affected by proving that all men at all times, when they reasoned correctly, reasoned inductively. Moreover, in Bacon's particular department, men had notoriously pursued a wrong Method.* They were not *aware* of the necessity, which he declared there was in all investigations, to proceed upon a *graduated and successive Induction.* Bacon first made them aware of this; and, as Dr. Whewell says, 'the truly remarkable circumstance is to find this recommendation of a continuous advance from observation, by limited steps, through successive gradations of generality, given at a time when speculative men in general had only just begun to perceive that they must begin their course from experience in some way or other. . . . In catching sight of this principle, and in ascribing to it its due importance, Bacon's sagacity, so far as I am aware, wrought unassisted and unrivalled.'†

The second question now presents itself. Was the method useful as a guide in investigation? Many persons have declared it to be useless. Mr. Macaulay is of the same opinion. He says, with

* And this in spite of the warning so emphatically given three centuries before Francis Bacon, by his great namesake Roger Bacon: 'Sine experientiâ nihil sufficienter sciri potest. Duo enim sunt modi cognoscendi, scilicet per argumentum et experimentum. Argumentum concludit et facit nos concludere quæstionem, sed non certificat neque removet dubitationem, ut quiescat animus in intuitu veritatis, nisi eam inveniat viâ experientiæ.'—*Opus Majus*, pars vi. cap. i.

† *Philos. of Inductive Sciences*, ii. 395, 396.

great truth, 'By stimulating men to the discovery of *new* truth, Bacon stimulated them to employ the inductive method—the only method by which truth can be discovered. By stimulating men to the discovery of *useful* truth, he furnished them with a motive to perform the inductive process well and carefully. His predecessors had been anticipators of Nature. They had been content with first principles, at which they had arrived by the most scanty and slovenly induction. And why was this? It was, we conceive, because their philosophy proposed to itself no practical end, because it was merely an exercise of the mind. A man who wants to contrive a new machine, or a new medicine, has a strong motive to observe patiently and accurately, and to try experiment after experiment; but a man who merely wants a theme for disputation, or declamation, has no such motive.'

Now in this passage, as it seems to us, the very merit we are claiming for Bacon is conceded. We are told that Bacon stimulated men to employ the Inductive Method—the only method by which new truth could be discovered. Who pointed out the futility of anticipating Nature?—Bacon. Who exposed the 'scanty and slovenly induction' of the Schoolmen?—Bacon. His merit is not simply that of stimulating men to the discovery of new lands, but of also affording them chart and compass wherewith to discover the new lands. There were several eminent men, his predecessors and contemporaries, who all rose up against the ancient systems, and stimulated men to the discovery of useful truth; but these men, although all of them constantly insisted upon observation and experiment, had no glimpse, or only a very partial and confused glimpse, of the Inductive Method. So that when Mr. Macaulay says, 'It was not by furnishing philosophers with rules for performing the inductive process well, but by furnishing them with a motive for performing it well, that he conferred so vast a benefit on society,' we believe he is contradicted, on all sides, by history. The *motive* had been given by many—indeed, one may say that it was a tendency of the age; the *rules* had been devised by no one but himself. These rules, it is true, were far from perfect; but they constitute the beginning, and form the basis of the more perfect structure which successors have erected. Mr. Macaulay's argument receives its force solely from what we cannot but regard as his misconception of the Baconian Induction. That Induction he declares to be daily performed by every man; but this is confounding ordinary Induction, with scientific Induction. It is confounding

a simple inference, with a long and complicated process of inference. It is confounding what Bacon incessantly and emphatically distinguishes, viz. *Induction* with the *Inductive Method;* and this confusion has probably influenced him in the selection of his illustrations. None of the things he has named require a complicated process of reasoning for their discovery. If a man wants to make a shoe, he needs inductions, but is certainly in no need of the Inductive Method; if he wants to discover a law of Nature, the Inductive Method is indispensable. Mr. Macaulay will not maintain that the ordinary man, who wishes to find out a law of Nature, proceeds in his inquiry by a graduated and successive Induction from particulars to generals, and from generals to those which are still more general; and this without 'anticipation' of Nature—without rash and hasty leaping from one particular to some extreme generality. In fact, although *Induction,* as the type of reasoning, must be carried on by every reasoning animal, yet so far is the *Inductive Method* from being the ordinary process of ordinary men, that we know of scarcely any process *so contrary* to the natural bias of the mind. Bacon has more than once alluded to this bias, which makes us judge hastily, and on the slenderest evidence. Indeed, the Inductive Method requires a constant and watchful repression of our natural tendency to 'anticipate,' and endeavour, by a short cut, to abridge the long journey which conducts us to the Truth.

But while we think Mr. Macaulay underrates the importance of the inductive rules, we quite agree with him that Bacon overrated their importance. 'Our method of discovery in science,' so runs one of his aphorisms, 'is of such a nature that there is not much left to acuteness and strength of genius, but all degrees of genius and intellect are brought nearly to the same level.'* This is contradicted by every two men engaging in scientific pursuits. In proportion to the effectiveness of the instrument, will the original superiority make itself more manifest. Place axes in the hands of two men commissioned to make a clearing in the forest, and the stronger man will be at a greater advantage than he was before. Moreover the Method, however excellent when followed, cannot force men to follow it: the natural bias of the mind is against it. Mr. Macaulay therefore is perfectly right in preferring the spirit of Bacon's Method to the rules given in the second book of the *Organum.*

* *Novum Organum,* i. Aph. 61.

There is however another reason why the spirit is preferable to the rules; and that reason is the incompleteness of those rules. The radical defect of Bacon's method lies in its being *inductive*, and not also *deductive*. He was so deeply impressed with a sense of the insufficiency of the Deductive Method alone, which he saw his contemporaries pursuing, and which he knew to be the cause of the failure of his predecessors, that he bestowed all his attention on the Inductive Method. His want of mathematical knowledge had also no small share in this error. Although however it may be justly said that he did not sufficiently exemplify the Deductive Method, it is not correct to say that he entirely neglected it. Those who assert this, forget that the second part of the *Novum Organum* was never completed. In the second part it was his intention to treat of Deduction, as is plain from the following passage: 'The indications for the interpretation of Nature include two general parts. The first relates to the raising of Axioms from experience; and the second, to the *deducing or deriving of new experiments from Axioms* (de ducendis aut derivandis experimentis novis ab axiomatibus).'* We here see that he comprehended the twofold nature of the method; but inasmuch as he did not publish the second part of his *Organum*, we may admit the remark of Professor Playfair, that 'in a very extensive department of physical science, it cannot be doubted that investigation has been carried on, not perhaps more easily, but with a less frequent appeal to experience, than the rules of the *Novum Organum* would seem to require. In all physical inquiries where mathematical reasoning has been employed, after a few principles have been established by experience, a vast multitude of truths, equally certain with the principles themselves, have been deduced from them by the mere application of geometry and algebra. . . . The strict method of Bacon is therefore only necessary where the thing to be explained is new, and where we have no knowledge, or next to none, of the powers employed.'†

His deficiency in mathematical knowledge caused him to overlook the equal importance of Deduction and Induction:—'Bacon has judiciously remarked, that the *axiomata media* of every science principally constitute its value. The lowest generalizations, until explained by and resolved into the middle principles, of which they are the consequences, have only the imperfect accuracy of empirical laws; while the most general laws are *too* general, and include too

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* *Novum Organum*, ii. Aph. 10.

† *Dissertation*, pp. 58, 61.

few circumstances to give sufficient indication of what happens in individual cases, where the circumstances are almost always immensely numerous. In the importance therefore which Bacon assigns, in every science, to the middle principles, it is impossible not to agree with him. But I conceive him to have been radically wrong in his doctrine respecting the mode in which these *axiomata media* should be arrived at; although there is no one proposition in his works for which he has been so extravagantly eulogized. He enunciates, as a universal rule, that induction should proceed from the lowest to the middle principles, and from the those to the highest, never reversing that order, and consequently leaving no room for the discovery of new principles by way of deduction at all. It is not to be conceived that a man of Bacon's sagacity could have fallen into this mistake, if there had existed in his time, among the sciences which treat of successive phenomena, one single deductive science, such as mechanics, astronomy, optics, acoustics, etc., now are. In those sciences, it is evident that the higher and middle principles are by no means derived from the lowest, but the reverse. In some of them, the very highest generalizations were those earliest ascertained with any scientific exactness; as, for example (in mechanics), the laws of motion. Those general laws had not indeed at first the acknowledged universality which they acquired after having been successfully employed to explain many classes of phenomena to which they were not originally seen to be applicable; as when the laws of motion were employed in conjunction with other laws to explain deductively the celestial phenomena. Still the fact remains, that the propositions which were afterwards recognized as the most general truths of the science, were, of all its accurate generalizations, those earliest arrived at.

'Bacon's greatest merit therefore cannot consist, as we are so often told that it did, in exploding the vicious method pursued by the ancients, of flying to the highest generalizations for it, and deducing the middle principles from them, since this is neither a vicious nor an exploded method, but the universally accredited method of modern science, and that to which it owes its greatest triumphs. The error of ancient speculation did not consist in making the largest generalizations first, but in making them without the aid or warrant of rigorous inductive methods, and applying them deductively without the needful use of that important part of the deductive method termed verification.'*

* Mill's *System of Logic*, ii. 524–6.

This passage certainly lays bare the weakness of Bacon's Method; and does so, we believe, for the first time. But we cannot entirely concur in the concluding paragraph. Although Bacon did not perhaps see the real importance of the Deductive Method, he did see the futility of the Deductive Method employed before his time; and he saw moreover that the cause lay in the want of 'verification'—in the want of 'the aid or warrant of rigorous inductive methods:' this we must think his greatest merit, as we think his imperfect conception of the Deductive Method his greatest imperfection.

There is also another potent reason why the merely Inductive Method should not have contributed to any great discoveries; and we must again borrow from the *System of Logic* the passage wherein this is exhibited:—

'It has excited the surprise of philosophers that the detailed system of inductive logic has been turned to so little direct use by subsequent inquirers,—having neither continued, except in a few of its generalities, to be recognized as a theory, nor having conducted, in practice, to any great scientific results. But this, though not unfrequently remarked, has scarcely received any plausible explanation; and some indeed have preferred to assert that all rules of induction are useless, rather than suppose that Bacon's rules are grounded upon an insufficient analysis of the inductive process. Such however will be seen to be the fact, as soon as it is considered that Bacon entirely overlooked plurality of causes. All his rules tacitly imply the assumption, so contrary to all we know of Nature, that a phenomenon cannot have more than one cause.'*

In another passage, too long for extract, the same author points out a capital error in Bacon's view of the inductive philosophy, viz. his supposition that the principle of elimination—that great logical instrument which he had the immense merit of first bringing into use—was applicable in the same sense, and in the same unqualified manner, to the investigation of *co-existences*, as to that of the *successions of phenomena*.†

In conclusion, it may be said that Bacon's conception of a scientific Method was magnificent, as far as it went; but in consequence of certain deficiencies, owing principally to the want of any established science as a model, the Method he laid down was only *indirectly* useful. If it did not produce great discoveries, it certainly did exercise an important influence on the minds of those who were

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* *System of Logic*, ii. 373.

† *Ibid.*, ii. 127 *et seq.*

afterwards to make great discoveries. 'The way to prove that Bacon's writings were powerful agents in the advancement of physical knowledge,' says Professor Napier, 'is to prove that they produced these effects (viz. the overthrow of existing methods—stimulus given to experimental inquiry—and ingenious views and principles requisite for such inquiry); and the proof that such effects were actually produced by them, must necessarily be derived from the testimony of those who early experienced, or became otherwise acquainted with, their operation.' And the greater part of his instructive Essay is devoted to this proof. The proofs are numerous and decisive, gathered not only from the English and French writers, but also from Italian and German.

And now the last question presents itself, Was not Bacon's Method latent in the scientific spirit of the age? Yes; just as much as the invention of the steam-engine was latent in the knowledge and tendencies of the age of Watt. What does invention mean more than the finding what others are still seeking? were it not hidden somewhere, no one could find it. Let no one therefore endeavour to rob a great man of his fame by declaring that the thing found was lying ready to be found, and would have sooner or later been found by some one. Yes, by some one who had eyes to see what his fellow-men could not see: by some other *great* man. How was it that Bacon's immediate predecessors and contemporaries did not detect this latent method? It was lying there as open for inspection to them as to him. Why did he alone find it? Because he alone was competent to find it.

It is very true that in his day, and previously, great discoveries had been made; and as they only could be made upon a true Method, the Method was implied in them. But this is no argument against Bacon's originality. 'Principles of evidence,' says Mr. Mill, 'and theories of method, are not to be constructed *à priori*. The laws of our rational faculty, like those of every other natural agency, are only learnt by seeing the agent at work. The earlier achievements of science were made without the conscious observance of any scientific method; and we should never have known by what process truth is to be ascertained if we had not previously ascertained truths.' And if we consider for a moment the extreme paucity of ascertained truths in science at the time Bacon wrote, it will enhance our admiration of his marvellous sagacity, to see him do so much with such poor materials; as Playfair says, 'the history of human knowledge points out nobody of whom it can be said

that, placed in the situation of Bacon, he would have done what Bacon did,—no man whose prophetic genius would enable him to delineate a system of science which had not yet begun to exist.'

Bacon is a great subject, and one as attractive as great; but our object here has been solely to exhibit his Method, and to indicate its historical position. We have done nothing but point out the grounds upon which his fame, as the father of Experimental Philosophy, is built. His Method alone engaged us, because by it alone he claims a place in this history. We have not dwelt upon his errors; neither have we dwelt upon the wondrous and manifold excellences of that mind which Mr. Macaulay has so felicitously compared to the tent the fairy Peribanou gave to Prince Ahmed:—'Fold it, and it seemed the toy for the hand of lady: spread it, and the armies of powerful Sultans might repose beneath its shade.'

SECOND EPOCH.

FOUNDATION OF THE DEDUCTIVE METHOD.

CHAPTER I.

DESCARTES.

§ I. Life of Descartes.

JUST at the close of the sixteenth century, 1596, there was born in Touraine, of Breton parents, a feeble sickly child, named René Descartes Duperron. A few days after his birth, a disease of the lungs carried off his mother. The sickly child grew to be a sickly boy; and, till the age of twenty, his life was always despaired of.

That boy was one the world could ill afford to lose. Few who saw him creeping on the path, which his companions galloped along like young colts, would have supposed that the boy, whose short dry cough and paleness seemed to announce an early grave, was shortly to become one of the world's illustrious leaders whose works would continue, centuries after their appearance, to be studied, quoted, and criticized. His masters loved him. He was a pupil of promise; and in his eighth year had gained the title of the Young Philosopher, from his avidity to learn, and his constant questioning.

His education was confided to the Jesuits. This astonishing body has many evils laid to its door, but no one can refuse to it the praise of having been ever ready to see and apply the value of education. In the college of La Flèche the young Descartes was instructed in mathematics, physics, logic, rhetoric, and the ancient languages. He was an apt pupil; learned quickly, and was never tired of learning.

Was the food supplied by the Jesuits nutritious? M. Thomas remarks, 'There is an education for the ordinary man; for the man of genius there is no education but what he gives himself; the

second generally consists in destroying the first.' And so it was with Descartes, who, on leaving La Flèche, declared that he had derived no other benefit from his studies than that of a conviction of his utter ignorance, and a profound contempt for the systems of philosophy in vogue. The incompetence of philosophers to solve the problems they occupied themselves with,—the anarchy which reigned in the scientific world, where no two thinkers could agree upon fundamental points,—the extravagance of the conclusions to which some accepted premisses led, determined him to seek no more to slake his thirst at their fountains.

'And that is why, as soon as my age permitted me to quit my preceptors,' he says, 'I entirely gave up the study of letters; and resolving to seek no other science than that which I could find in myself, or else in the great book of the world, I employed the remainder of my youth in travel, in seeing courts and camps, in frequenting people of diverse humours and conditions, in collecting various experiences, and above all in endeavouring to draw some profitable reflection from what I saw. For it seemed to me that I should meet with more truth in the reasonings which each man makes in his own affairs, and which if wrong would be speedily punished by failure, than in those reasonings which the philosopher makes in his study, upon speculations which produce no effect, and which are of no consequence to him, except perhaps that he will be more vain of them the more remote they are from common sense, because he would then have been forced to employ more ingenuity and subtlety to render them plausible.'*

For many years he led a roving unsettled life; now serving in the army, now making a tour; now studying mathematics in solitude, now conversing with scientific men. One constant purpose gave unity to those various pursuits. He was elaborating his answers to the questions which perplexed him; he was preparing his Method.

When only three-and-twenty he conceived the design of a reformation in philosophy. He was at that time residing in his winter quarters at Neuburg, on the Danube. His travels soon afterwards commenced, and at the age of thirty-three he retired into Holland, there in silence and solitude to arrange his thoughts into a consistent whole. He remained there eight years; and so completely

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* *Discours de la Méthode*, p. 6 of the convenient edition of M. Jules Simon. Paris, 1844.

did he shut himself from the world, that he concealed from his friends the very place of his residence.

When the results of this meditative solitude were given to the world, in the shape of his celebrated *Discourse on Method,* and his *Meditations* (to which he invented replies), the sensation produced was immense. It was evident to all men that an original and powerful thinker had arisen; and although of course this originality could not but rouse much opposition, from the very fact of being original, yet Descartes gained the day. His name became European. His controversies were European quarrels. Charles I. of England invited him over, with the promise of a liberal appointment; and the invitation would probably have been accepted, had not the civil war broken out. He afterwards received a flattering invitation from Christina of Sweden, who had read some of his works with great satisfaction, and wished to learn from himself the principles of his philosophy. He accepted it, and arrived in Stockholm in 1649. His reception was most gratifying, and the Queen was so pleased with him as earnestly to beg him to remain with her, and give his assistance towards the establishment of an academy of sciences. But the delicate frame of Descartes was ill fitted for the severity of the climate, and a cold, caught in one of his morning visits to Christina, produced inflammation of the lungs, which put an end to his existence. Christina wept for him, had him interred in the cemetery for foreigners, and placed a long eulogium upon his tomb. His remains were subsequently (1666) carried from Sweden into France, and buried with great ceremony in St. Geneviève du Mont.

Descartes was a great thinker; but having said this we have almost exhausted the praise we can bestow upon him as a man. In disposition he was timid to servility. When promulgating his proofs of the existence of the Deity, he was in evident alarm lest the Church should see something objectionable in them. He had also written an astronomical treatise; but hearing of the fate of Galileo, he refrained from publishing, and always used some chicane in speaking of the world's movement. He was not a brave man; nor was he an affectionate man. But he was even-tempered, placid, and studious not to give offence. In these, as in so many other points, he resembles his illustrious rival, Francis Bacon; but his name has descended spotless to posterity, while Bacon's has descended darkened with more spots than time can efface. It would be hard to say how much difference of *position* had to do with this

difference of moral purity. Had Bacon lived in his study, we should have only praises for his name.

§ II. The Method of Descartes.

There have been disputes as to Bacon's claim to the title of Father of Experimental Science; but no one disputes the claim of Descartes to the title of Father of Modern Philosophy. Ontology and Psychology are still pursued upon his Method; and his speculations are still proudly referred to, by most Continental thinkers, as perfect, or almost perfect, examples of that Method.

In his Dedication of the *Meditations* to the Sorbonne, he says:—'I have always thought that the two questions, of the existence of God, and the nature of the soul, were the chief of those which ought to be demonstrated rather by philosophy than by theology; for although it is sufficient for us, the faithful, to believe in God, and that the soul does not perish with the body, it certainly does not seem possible ever to persuade the infidels to any religion, nor hardly to any moral virtue, unless we first prove to them these two things by natural reason.' Extraordinary language, which shows how completely Philosophy had gained complete independence.

But if Philosophy is to be independent,—if Reason is to walk alone, in what direction must she walk? Having relinquished the aid of the Church, there were but two courses open: the one, to tread once more in the path of the ancients, and to endeavour by the ancient Methods to attain the truth; or else to open a new path, to invent a new Method. The former was barely possible. The spirit of the age was deeply imbued with a feeling of opposition against the ancient Methods; and Descartes himself had been painfully perplexed by the universal anarchy and uncertainty which prevailed. The second course was therefore chosen.

Uncertainty was the disease of the epoch. Scepticism was widespread, and even the most confident dogmatism could offer no criterium of certitude. This want of a criterium we saw leading, in Greece, to Scepticism, Epicureanism, Stoicism, the New Academy, and finally leading the Alexandrians into the province of faith, to escape from the dilemma. The question of a criterium had long been the vital question of philosophy. Descartes could get no answer to it from the doctors of his day. Unable to find firm ground in any of the prevalent systems; distracted by doubts; mistrusting the conclusions of his own understanding; mistrusting

the evidences of his senses, he determined to make a *tabula rasa*, and reconstruct his knowledge. He resolved to examine the premisses of every conclusion, and to believe nothing but upon the clearest evidence of reason; evidence so convincing, that he could not by any effort refuse to assent to it.

He has given us the detailed history of his doubts. He has told us how he found that he could plausibly enough doubt of everything, except of his own existence. He pushed his scepticism to the verge of self-annihilation. There he stopped: there, in Self, in his Consciousness, he found at last an irresistible Fact, an irreversible Certainty.

Firm ground was discovered. He could doubt the existence of the external world, and treat it as a phantasm; he could doubt the existence of God, and treat the belief as a superstition; but of the existence of his thinking, doubting mind, no sort of doubt was possible. He, the doubter, existed, if nothing else existed. The existence that was revealed in his own Consciousness was the primary Fact, the first indubitable certainty. Hence his famous *Cogito, ergo Sum;* I think, therefore I am.

It is somewhat curious, and, as an illustration of the frivolous verbal disputes of philosophers, not a little instructive, that this celebrated *Cogito, ergo Sum* should have been frequently attacked for its logical imperfection. It has been objected, from Gassendi downwards, that to say, 'I think, *therefore* I am,' is a begging of the question, since existence has to be *proved* identical with thought. Certainly, if Descartes had intended to prove his own existence by reasoning, he would have been guilty of the *petitio principii* Gassendi attributes to him; viz. that the major premiss, 'that which thinks exists,' is assumed, not proved. But he did not intend this. What was his object? He has told us that it was to find a starting-point from which to reason,—to find an irreversible certainty. And where did he find this? In his own Consciousness. Doubt as I may, I cannot doubt of my own existence, because my very doubt reveals to me a something which doubts. You may call this an assumption, if you will: I point out the fact as one above and beyond all logic; which logic can neither prove nor disprove; but which must always remain an irreversible certainty, and as such a fitting basis of philosophy.*

I exist. No doubt can darken such a truth; no sophism can

* See his replies to the third and fifth series of Objections, affixed to his *Meditations*.

confute this clear principle. This is a certainty, if there be none other. This is the basis of all science. It is in vain to ask for a proof of that which is self-evident and irresistible. I exist. The *consciousness* of my existence is to me the assurance of my existence.

Had Descartes done no more than point out this fact, he would have no claim to notice here; and we are surprised to find many writers looking upon this *Cogito, ergo Sum,* as constituting the great idea in his system. Surely it is only a statement of universal experience—an epigrammatic form given to the common-sense view of the matter. Any clown would have told him that the assurance of his existence was his consciousness of it; but the clown would not have stated it so well. He would have said: I know I exist, because I *feel* that I exist.

Descartes therefore made no discovery in pointing out this fact as an irresistible certainty. The part it plays in his system is only that of a starting-point. It makes *Consciousness* the basis of all truth; there is none other possible. Interrogate Consciousness, and its clear replies will be Science. Here we have a new basis and a new philosophy introduced. It was indeed but another shape of the old formula, 'Know thyself,' so differently interpreted by Thales, Socrates, and the Alexandrians: but it gave that formula a precise signification, a thing it had before always wanted. Of little use could it be to tell man to know himself. How is he to know himself? By looking inwards? We all do that. By examining the nature of his thoughts? That had been done without success. By examining the *process* of his thoughts? That too had been accomplished, and the logic of Aristotle was the result.

The formula needed a precise interpretation; and that interpretation Descartes gave. Consciousness, said he, is the basis of all knowledge; it is the only ground of absolute certainty. Whatever it distinctly proclaims must be true. The process, then, is simple: examine your Consciousness, and its clear replies. Hence the vital portion of his system lies in this axiom, *all clear ideas are true:* whatever is clearly and distinctly conceived is true. This axiom he calls the foundation of all science, the rule and measure of truth.*

The next step to be taken was to determine the rules for the

* 'Hâc igitur detectâ veritate simul etiam invenit omnium scientiarum fundamentum: ac etiam omnium aliarum veritatum mensuram ac regulam; scilicet, quicquid tam clarè ac distinctè percipitur quàm istud verum est.'—*Princip. Phil.* p. 4.

proper detection of these ideas; and these rules he has laid down as follows:—

I. Never to accept anything as true, but what is *evidently* so; to admit nothing but what so clearly and distinctly presents itself as true that there can be no reason to doubt it.

II. To divide every question into as many separate questions as possible; that each part being more easily conceived, the whole may be more intelligible.—(Analysis.)

III. To conduct the examination with order, beginning by that of objects the most simple, and therefore the easiest to be known, and ascending little by little up to knowledge of the most complex. —(Synthesis.)

IV. To make such exact calculations, and such circumspections, as to be confident that nothing essential has been omitted.

Consciousness being the ground of all certainty, everything of which you are clearly and distinctly conscious must be true; everything which you clearly and distinctly conceive exists, if the idea of it involves existence.

In the four rules, and in this view of Consciousness, we have only half of Descartes' system: the psychological half. It was owing, we believe, to the exclusive consideration of this half that Dugald Stewart was led (in controverting Condorcet's assertion that Descartes had done more than either Galileo or Bacon towards experimental philosophy) to say that Condorcet would have been nearer the truth if he had pointed him out as the Father of the Experimental Philosophy of the Mind. Perhaps the title is just; but Condorcet's praise, though exaggerated, was not without good foundation.

There is, in truth, another half of Descartes' system; equally important, or nearly so: we mean the Mathematical or Deductive Method. His eminence as a mathematician is universally recognized. He was the first to make the grand discovery of the application of Algebra to Geometry; and he made this at the age of twenty-three. The discovery that geometrical curves might be expressed by algebraical numbers, though highly important in the history of mathematics, only interests us here by leading us to trace his philosophical development. We see him deeply engrossed in mathematics; we see him awakening to the conviction that mathematics were capable of a still further simplification, and of a far more extended application. Struck as he was with the certitude of mathematical reasoning, he began applying the principles of

mathematical reasoning to the subject of metaphysics. His great object was, amidst the scepticism and anarchy of his contemporaries, to found a system which should be solid and convincing. He first wished to find a basis of certitude—a starting-point: this he found in Consciousness. He next wished to find a method of certitude: this he found in mathematics.

'Those long chains of reasoning,' he tells us, 'all simple and easy, which geometers use to arrive at their most difficult demonstrations, suggested to me that all things which came within human knowledge must follow each other in a similar chain; and that provided we abstain from admitting anything as true which is not so, and that we always preserve in them the order necessary to deduce one from the other, there can be none so remote to which we cannot finally attain, nor so obscure but that we may discover them.'* From these glimpses of the twofold nature of Descartes' Method, it will be easy to see into his whole system. The psychological and mathematical Methods are inseparable, Consciousness being the only ground of certitude, mathematics the only method of certitude.

We may say therefore that the Deductive Method was now completely constituted. The whole operation of philosophy henceforth consisted in deducing consequences. The premisses had been found; the conclusions alone were wanting. This was held to be true of physics no less than of psychology. Thus, in his *Principia*, he announces his intention of giving a short account of the principal phenomena of the world, not that he may use them as reasons to prove anything; for he adds, 'we desire to *deduce effects from causes, not causes from effects*, but only in order that out of the innumerable effects which we learn to be capable of resulting from the same causes, we may determine our minds to consider some rather than others.'†

Such being the Method of Descartes, our readers will hear with surprise that some French writers have declared it to be the same

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* *Discours de la Méthode*, p. 12.

† *Principia Philos.* pars iii. p. 51. The phrase, 'cupimus enim rationes effectuum à causis, non autem è contrario causarum ab effectibus deducere,' may be said to express the nature of his method, as opposed to the method of Bacon. When M. Jules Simon said, 'The commencement of philosophy for Descartes is Doubt; that alone is all his entire method—*cela seul est toute sa Méthode*' (Introduction prefixed to his edition of Descartes, p. 3), he mistakes, as it seems to us, the whole purpose of Descartes' artificial scepticism: besides, how can a Doubt be a Method?

Method as that laid down by Bacon; and this surprise will be heightened on learning that M. Victor Cousin is one of those writers. He says, 'Let us now see what our Descartes has done. He has established in France the same Method that England has endeavoured to attribute exclusively to Bacon; and he has established it with less grandeur of imagination in style, but with the superior precision which must always characterize one who, not content with laying down rules, puts them himself in practice, and gives the example with the precept.'* M. Cousin then quotes the four rules we quoted from Descartes; and seeing in them Analysis and Synthesis, which he believes constitutes the sole Method of Bacon, declares that the two Methods are one. Such a statement requires no refutation; nor indeed would it have been noticed, did it not afford an illustration of the loose way in which the term Method is employed by many writers.

Bacon was the reverse side of the medal of Descartes. Bacon's deficiencies lay in that department where Descartes was greatest—in mathematics. Hence Bacon's over-valuation of Induction, and neglect of Deduction; hence also Descartes' over-valuation of Deduction, and neglect of Induction. Both cultivated Physics; but Bacon made it the basis of all the sciences; Descartes made it a mere illustration of his principles. The one argued from effects to causes—from the known to the unknown; the other deduced effects from causes—explaining phenomena by noumena—explaining that which presented itself to the senses by that which was intuitively known. Both separated religion from philosophy; but Bacon declared the problems of religion and ontology insoluble by reason, and therefore beyond the province of science; Descartes declared them soluble *only* by reason, and that it was the first object of philosophy to solve them.

Besides these and other points of difference, there were also several points of resemblance, owing to the resemblance of their positions as reformers. They both overvalued their Methods, which they declare will enable all men to philosophize with equal justness. 'It is not so essential to have a fine understanding,' says Descartes, 'as to apply it rightly. Those who walk slowly make greater progress, if they always follow the right road, than those who run swiftly, but run on a wrong one.' This is precisely the thought of Bacon: 'A cripple in the right path will beat a racer

* *Hist. de la Phil.*, leçon iii. p. 91, ed. Bruxelles, 1840.

in the wrong one.' But both these thinkers assume that the racer will *choose* the wrong path: whereas, if their Methods are adopted, the finer understanding must always surpass the duller in the discovery of truth.

Before quitting this subject, we must remark on the essentially metaphysical nature and tendency of the Method of Descartes, even when employed on Physics; and for this purpose we cannot do better than borrow the admirable language of Fontenelle in his parallel between Descartes and Newton. 'Tous deux géomètres excellents ont vu la nécessité de transporter la géométrie dans la physique . . . Mais l'un, prenant un vol hardi, a voulu se placer à la source de tout, se rendre maître des premiers principes par quelques idées claires et fondamentales, pour n'avoir plus qu'à descendre aux phénomènes de la nature comme à des conséquences nécessaires; l'autre, plus timide ou plus modeste, a commencé sa marche par s'appuyer sur les phénomènes pour remonter aux principes inconnus, résolu de les admettre, quels que les pût donner l'enchaînement des conséquences. L'un part de ce qu'il entend nettement pour trouver la cause de ce qu'il voit; l'autre part de ce qu'il voit pour en trouver la cause, soit claire, soit obscure.'

§ III. Application of the Method.

To prove the existence of God was the first application of Descartes' Method; not, as some say, to prove his own existence; for that neither admitted of *logical* proof nor of disproof: it was a primary fact.

Interrogating his Consciousness, he found that he had the idea of God, understanding, by God, a substance infinite, eternal, immutable, independent, omniscient, omnipotent. This, to him, was as certain a truth as the truth of his own existence. I exist: not only do I exist, but exist as a miserably imperfect, finite being, subject to change—greatly ignorant, and incapable of creating anything. In this, my Consciousness, I find by my finitude that I am not the All; by my imperfection, that I am not perfect. Yet an infinite and perfect being must exist, because infinity and perfection are implied, as correlatives, in my *ideas* of imperfection and finitude. God therefore exists: his existence is clearly proclaimed in my Consciousness, and can no more be a matter of doubt, when fairly considered, than my own existence. The conception of an infinite being proves his real existence; for if there

is not really such a being, *I* must have made the conception; but if I could make it, I can also unmake it, which evidently is not true; therefore there must be, externally to myself, an archetype from which the conception was derived.

'The ambiguity in this case,' it has been remarked,* 'is the pronoun *I*, by which in one place is to be understood my *will*, in another *the laws of my nature*. If the conception, existing as it does in my mind, had no original without, the conclusion would unquestionably follow that *I* had made it—that is, the laws of my nature must have spontaneously evolved it; but that my *will* made it would not follow. Now, when Descartes afterwards adds that I cannot unmake the conception, he means that I cannot get rid of it by an act of my will, which is true, but is not the proposition required. That what some of the laws of my nature have produced, other laws, or the same laws in other circumstances, might not subsequently efface, he would have found it difficult to establish.'

His second demonstration is the weakest of the three. Indeed, it is the only one not irrefragable, upon his principles. The third demonstration is peculiarly Cartesian, and may be thrown into this syllogism:—

> All that we clearly and distinctly conceive as contained in anything, is true of that thing.
>
> Now we conceive, clearly and distinctly, that the existence of God is contained in the idea we have of him.
>
> *Ergo,*
>
> God exists.

Having demonstrated the existence of God, he had to prove the distinction between body and soul. This, to him, was easy. The fundamental attribute of Substance must be extension, because we can abstract from Substance all the qualities except extension. The fundamental attribute of Mind is thought, because by this attribute Mind is revealed to itself. Now, according to one of his logical axioms, two substances are really distinct when their ideas are complete, and in no way imply each other. The ideas, therefore, of extension and thought being distinct, it follows that Substance and Mind are distinct in essence.

We need not pursue our analysis of his metaphysical notions further. We only stop to remark on the *nature* of his demonstrations of God and the soul. It is, and was, usual to prove the exist-

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* Mill's *System of Logic*, ii. 447.

ence of God from what is called the 'evidence of design.' Descartes neither started from design, nor from motion, which must have a mover: he started from the *à priori* ideas of perfection and infinity; his proof was in the clearness of his idea of God. His Method was that of definition and deduction. To define the idea of God, and hence to construct the world—not to contemplate the world, and thence infer the existence of God—was the route he pursued. Is it not eminently the procedure of a mathematician? and of a mathematician who has taken Consciousness as his starting-point?

Descartes' speculations are beautiful exemplifications of his Method; and he follows that Method, even when it leads him to the wildest conclusions. His physical speculations are sometimes admirable (he made important discoveries in optics), but mostly fanciful. The famous theory of vortices deserves a mention here, as an example of his Method.

He begins by banishing the notion of a *vacuum*, not, as his contemporaries said, because Nature has a horror of vacuum, but because, the essence of Substance being extension, wherever there is extension there is Substance, consequently empty space is a chimera. The substance which fills all space must be assumed as divided into equal angular parts. Why must this be assumed?—Because it is the most simple, therefore the most natural supposition. This substance being set in motion, the parts are ground into a spherical form; and the corners thus rubbed off, like filings or sawdust, form a second and more subtle kind of substance. There is, besides, a kind of substance, coarser and less fitted for motion. The first kind makes luminous bodies, such as the sun and fixed stars; the second makes the transparent substance of the skies; the third kind is the material of opaque bodies, such as earth, planets, etc. We may also assume that the motions of these parts take the form of revolving circular currents, or *vortices*. By this means the matter will be collected to the centre of each vortex, while the second or subtle matter surrounds it, and by its centrifugal effort constitutes light. The planets are carried round the sun by the motion of this vortex, each planet being at such a distance from the sun as to be in a part of the vortex suitable to its solidity and mobility. The motions are prevented from being exactly circular and regular by various causes. For instance, a vortex may be pressed into an oval shape by contiguous vortices.*

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* We have followed Dr. Whewell's exposition of this theory, as given by

Descartes, in his physics, adopted a method which permitted him to set aside the *qualities* and the *substantial forms* (which others were seeking), and to consider only the relations of number, figure, and motion. In a word, he saw in physics only mathematical problems. This was premature. Science, in its infancy, cannot be carried on by the deductive Method alone: such a process is reserved for its maturity.

But this deductive Method, though premature, was puissant. Science is forced to employ it, and Bacon's greatest error was in not sufficiently acknowledging it. Hence we may partly account for the curious fact that Bacon, with his cautious Method, made no discoveries, while Descartes, with his premature Method, made important discoveries. Of course the greater physical knowledge of Descartes, and the greater attention bestowed by him upon physics, had something to do with this; but his Method also assisted him, precisely because his discoveries were of a kind to which the mathematical method was strictly applicable.

That Descartes had read Bacon there is no doubt. He has himself praised Bacon's works as leaving nothing to be desired on the subject of *experience;* but he perceived Bacon's deficiency, and declared that we are 'liable to collect many *superfluous* experiences of particulars, and not only superfluous but false,' if we have not ascertained the truth *before* we make these experiences. In other words, experiment should be the verification of an *à priori* conception; whereas Bacon teaches us to form our conceptions from experiment.

We have said enough to make the Method of Descartes appreciable. His position is that of founder of the Deductive Method on the basis of Consciousness. His scholars may be divided into the mathematical cultivators of Physics, and the deductive cultivators of Philosophy. By the first he was speedily surpassed, and his influence on them can only be regarded as an impulsion. By the second he was *continued:* his principles were unhesitatingly accepted, and only developed in a somewhat different manner.

His philosophical Method subsists in the present day. It is the Method implicitly or explicitly adopted by most metaphysicians in their speculations upon ontological subjects. Is it a good Method?

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him, *Hist. of Ind. Sciences*, ii. p. 134. The curious reader will do well however to turn to Descartes' own exposition in the *Principia Philosophiæ*, where it is illustrated by diagrams.

The question is of the highest importance: we will endeavour to answer it.

§ IV. Is the Method true?

In the Dedicatory Epistle prefixed to his *Meditations,* Descartes declares that his demonstrations of the existence of God, etc., 'equal, or even surpass, in certitude the demonstrations of geometry.' Upon what does he found this belief? He founds it upon the very nature of certitude. Consciousness is the basis of all certitude. Whatever I am distinctly conscious of, I must be certain of; all the ideas which I find in my Consciousness, as distinctly conceived, must be true. The belief I have in my existence is derived from the fact of my Consciousness: I *think,* therefore I *exist.* Now as soon as I conceive a truth with distinctness, I am irresistibly led to believe in it; and if that belief is so firm that I can never have any reason to doubt that which I believe, I have all the certitude that can be desired.

Further: we have *no knowledge whatever of anything external to us except through the medium of ideas.* The consequence is, says Descartes, that *whatever we find in the ideas must necessarily be in the external things.*

It is only in our minds that we can seek whether things exist, or not. There cannot be more reality in an effect than in a cause. The external thing, being the cause of the idea, must therefore possess as much reality as the idea, and *vice versâ.* So that whatever we conceive as existent, exists.

This is the basis on which Descartes' system is erected; if this basis be rotten, the superstructure must fall. If the root is vitiated, the tree will bear no fruit. No thinker, except Spinoza, has so clearly, so frankly stated his criterium. Let us then accept the challenge which it offers, since an opportunity is now afforded of bringing together in a narrow field the defenders and antagonists of philosophy.

If Descartes is wrong—if Consciousness is not the ultimate ground of Certitude, embracing both objective and subjective—if ideas are not the internal copies of external things—then must Philosophy be content to relinquish all claim to certitude, and find refuge again in Faith.

And Descartes *is* wrong. The very Consciousness to which he appeals, convicts him. There is this fallacy in his system: Consciousness is the ultimate ground of certitude, *for me;* if I am con-

scious that I exist, I cannot doubt that I exist; if I am conscious of pain, I must be in pain. This is self-evident. But what ground of certitude can my Consciousness afford respecting things which are *not me?* How does the principle of certitude apply? How far does it extend? It can only extend to things which relate *to me*. I am conscious of all that passes within *myself;* but I am not conscious of what passes in *not-self:* all that I can possibly know of the *not-self* is in its *effects upon me*.

Consciousness is therefore 'cabin'd, cribb'd, confined' to *me*, and to what passes within *me;* so far does the principle of certitude extend, and no farther. Any other ideas we may have, any knowledge we may have respecting *not-self*, can only be founded on *inferences*. Thus, I burn myself in the fire: I am conscious of the sensation; I have certain and immediate knowledge of that. But I can only be certain that a change has taken place in my consciousness; when from that change I *infer* the existence of an external object (the fire), my inference *may* be correct, but I have obviously shifted my ground; Consciousness—my principle of certitude—forsakes me here: I go out of myself to infer the existence of something which is not-self. My knowledge of the sensation was *immediate*, indubitable. My knowledge of the object is *mediate*, uncertain.

Directly therefore we leave the ground of Consciousness for that of inference, avenues of doubt are opened. Other inferences can be brought to bear upon any one inference to illustrate or to refute it. The mathematical certainty which Descartes attributed to these inferences becomes a great uncertainty. He says we only know things through the medium of ideas. We will accept the proposition as unquestionable. But then he also says that, in consequence of this, *whatever we find in the ideas must necessarily be true of the things*. The reason is, that as ideas are caused in us by objects, and as every effect must have as much reality as the cause—the effect being *equal* to the cause—so must ideas have the same reality as things. But this is a double fallacy. In the first place, an effect is not *equal to* its cause; it is a mere consequent of an antecedent, having no such relation as *equality* whatever. In the second place, the use of the term 'reality' is ambiguous. Unquestionably an effect *really* exists; but reality of existence does not imply *similarity of modes* of existence. The burn occasioned by a fire is as *real* as the fire; but it in no way *resembles* the fire.

So when Descartes says that what is true of ideas must be true

of things, he assumes that the mind is a *passive* recipient—a mirror, in which things reflect themselves. This is altogether fallacious; the mind is an *active* co-operator in all sensation—sensation is a *consciousness of changes operated in ourselves,* not a *consciousness of the objects causing those changes.* In truth, so far from our being able to apprehend the nature of things external to us, there is an impenetrable screen for ever placed before our eyes, and that impenetrable screen is the very Consciousness upon which Descartes relies. When placed in contact with external objects, they operate upon us; their *operations* we know, *themselves* we cannot know; precisely because our knowledge of them is *mediate,* and the medium is our Consciousness. Into whatever regions we wander, we carry with us this Consciousness, by means of which, indeed, we know, but all we know, is—*ourselves.*

Knowledge is composed of Ideas. Ideas are the joint product of mind on the one hand, and of external causes on the other; or rather we may say that Ideas are the products of mind excited by external causes. Upon what principles of inference (since we are here on the ground of inference) can you infer that the ideas excited are *copies* of the exciting causes—that the ideas excited apprehend the whole nature of the causes? The cause of the fallacy is in that very strong disposition to give objectivity to a law of the mind; in consequence of which we often hear people declare that something they are asserting is 'involved in the idea.'

There is one mode of escape left for those who believe in the validity of ontological speculations: namely, to assert the existence of *Innate Ideas,* or—as the theory is generally stated in modern times—of *Necessary Truths* independent of all experience. If the idea of God, for example, be innate in us, it is no longer a matter of inference, but of Consciousness; and on such an hypothesis Descartes is correct in believing that the certainty of this idea equals the certainty of geometry.

But some maintain that he did not assert the existence of Innate Ideas, though, from its having been a doctrine maintained by his followers, it is usually attributed to him. Dugald Stewart quotes the following passage from Descartes in reply to his adversaries, who accused him of holding the tenet of Innate Ideas:—'When I said that the idea of God is innate in us, I never meant more than this, that *Nature has endowed us with a faculty by which we may know God;* but I have never either said or thought that such ideas had an actual existence, or even that they were a *species* distinct

from the faculty of thinking. . . . Although the idea of God is so imprinted on our minds that every person has within himself the faculty of knowing Him, it does not follow that there may not have been various individuals who have passed through life without making this idea a distinct object of apprehension; and, in truth, they who think they have an idea of a plurality of Gods have no idea of God whatever.'

From this it would appear that he did not hold the doctrine of Innate Ideas. But we must venture to dissent from the conclusion drawn by Dugald Stewart on the strength of such a passage; against that passage we will bring another equally explicit (we could bring fifty, if necessary), which asserts the existence of Innate Ideas. 'By the word *idea*,' he says, 'I understand all that can be in our thoughts; and I distinguish three sorts of ideas:—*adventitious*, like the common idea of the sun; *framed* by the mind, such as that which astronomical reasoning gives of the sun; and *innate*, as the idea of God, mind, body, a triangle, and generally *all those which represent true immutable and eternal essences*.'* This last explanation is distinct; and it is all that the serious antagonists of Innate Ideas have ever combated. If Descartes, when pressed by objections, gave different explanations, we may attribute that to the want of a steady conception of the vital importance of Innate Ideas in his system. The fact remains that Innate Ideas form the necessary groundwork of the Cartesian doctrine.

Although the theory of Innate Ideas may, in its Cartesian form, be said to be exploded, it does really continue to be upheld, under a new form. A conviction of the paramount necessity of some such groundwork for metaphysical speculation has led to the modern theory of *Necessary Truths*. This plausible theory has been adopted by Dr. Whewell in his *Philosophy of the Inductive Sciences*; but his arguments have been completely shattered by John Mill on the one hand, and by Sir John Herschel on the other.†

The basis of all modern ontological speculations lies in assumption that we have *ideas independent of experience*. Experience can only tell us of ourselves, or of phenomena; of noumena it can tell us nothing. That we have no ideas independent of experience has been clearly enough established in the best schools of psychology;

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* *Lettres de Descartes*, liv.

† *System of Logic*, book ii. ch. v.; and *Quarterly Review*, June, 1841; indeed, Dr. Whewell's arguments had been anticipated and refuted by Locke long before. See *Essay*, book iv. ch. 6, 7.

but the existence of metaphysical speculation proves that the contrary opinion still finds numerous upholders.*

The fundamental question then of modern Philosophy was this, Have we any Ideas independent of Experience? And the attempts to solve it will occupy the greater portion of our history. Before entering upon it we must exhibit the Method of Descartes, pushed to its ultimate conclusions in Spinoza.†

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* See the question discussed further on: Epoch VIII. § v.

† The best modern works on Descartes, apart from regular Histories of Philosophy, are M. Francisque Boullier's *Histoire et Critique de la Révolution Cartésienne*, Paris, 1842; M. Ch. Renouvier's *Manuel de la Philos. Moderne*, Paris, 1841; and Feuerbach's *Geschichte der neuern Philosophie*, Leipzig, 1847. The best edition of Descartes' works is that by Victor Cousin, in eleven vols., 8vo, Paris, 1826. M. Jules Simon has also published a cheap and convenient edition, in one volume, of the *Discourse on Method*, the *Meditations*, and the *Treatise on the Passions*, Paris, 1844. Both of these have been excellently translated into English (Edinburgh, 1853).

CHAPTER II.

SPINOZA.

§ I. Spinoza's Life.

EARLY in the seventeenth century, on a fair evening of summer, a little Jewish boy was playing with his sisters on the Burgwal of Amsterdam, close to the Portuguese synagogue. His face was mild and ingenuous; his eyes were small, but bright, quick, and penetrative; and the dark hair floated in luxuriant curls over his neck and shoulders. Noticeable, perhaps, for his beauty and joyousness, the little boy played amongst the active citizens of that active town. The Dutch then occupied the thoughtful attention of all Europe. After having first conquered for themselves firm footing on this earth, by rescuing their country from the sea, they had thrown off the oppressive yoke of Spain; and had now conquered for themselves a freedom from a far greater tyranny, the tyranny of thought.

Amsterdam was noisy with the creaking of cordage, the bawling of sailors, and the busy trafficking of traders. The Zuyder Zee was crowded with vessels laden with precious stores from all quarters of the globe. The canals which ramify that city, like a great arterial system, were blocked up with boats and barges: the whole scene was vivid with the greatness and the littleness of commerce. Heedless of all this turmoil, as unheeded in it—heedless of all those higher mysteries of existence, the solution of which was hereafter to be the endeavour of his life—untouched by any of those strange questions which a restless spirit cannot answer, but which it refuses to have answered by others—heedless of everything but his game, the little boy played merrily with his sisters. That boy was Benedict Spinoza.

It is a pleasant thing to think of Spinoza as a boy, playing at boyish games. He has for so long been the bugbear of theologians and timid thinkers; he has for so long been looked upon as a monster, an atheist, and (to add to the horror) a Jewish atheist; and looked upon, even by those who were not so aghast at the consequences of his system, as nothing more than a frigid logician,

that we dwell with singular pleasure on any more *human* aspect of his character. We hope, ere we have done, to convince the reader that this rigorous logician was a wise, virtuous, and affectionate man.

His parents were honest merchants of Amsterdam, who had settled there in company with a number of their brethren, on escaping the persecution to which all Jews were subject in Spain. The young Baruch* was at first destined to commerce; but his passion for study, and the precocity of his intellect, made his parents alter their resolution in favour of a rabbinical education: a resolution warranted by sickliness of constitution which had increased his love of study. The sickly child is mostly thoughtful: he is thrown upon himself and his own resources; he suffers, and asks himself the cause of his pains, asks himself whether the world suffers like him; whether he is one with nature, and subject to the same laws, or whether he is apart from it, and regulated by distinct laws. From these he rises to the awful questions—Why? Whence? and Whither?

The education of the Jews was almost exclusively religious, the Old Testament and the Talmud forming their principal studies. Spinoza entered into them with a fanatical zeal, which, backed as it was by remarkable penetration and subtlety, won the admiration of the Chief Rabbin Saul Levi Morteira, who became his guide and instructor. Great indeed were the hopes entertained of this youth, who at fourteen rivalled almost all the doctors in the exactitude and extent of his biblical knowledge. But these hopes were turned to fears, when they saw that young and pertinacious spirit pursue his undaunted inquiries into whatever region they conducted him, and found him putting difficulties to them which they, Rabbins and philosophers, were unable to solve.

Spinoza was to be deterred neither by threats nor by sophistications. He found in the Old Testament no mention of the doctrine of immortality: there was complete silence on the point.† He made no secret of his opinions; and two of his schoolfellows, irri-

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* Baruch was Spinoza's Hebrew name, which he himself translated into Latin as Benedictus; from which some have erroneously supposed that he embraced Christianity, whereas he only renounced Judaism.

† On this silence Warburton endeavoured to establish the divinity of the Legation of Moses; and Bishop Sherlock has exerted considerable ingenuity in explaining the discrepancy which sceptics had seized hold of as an argument in their favour.

tated at his intellectual superiority, or else anxious to curry favour with the Rabbins, reported his heresy with the usual fertility of exaggeration. Summoned to appear before the Synagogue, he obeyed with a gay carelessness, conscious of his innocence. His judges, finding him obstinate in his opinions, threatened him with excommunication: he answered with a sneer. Morteira, informed of the danger, hastened to confront his rebellious pupil; but Spinoza remained as untouched by his rhetoric as he was unconvinced by his arguments. Enraged at this failure, Morteira took a higher tone, and threatened him with excommunication, unless he at once retracted. His pupil was irritated, and replied in sarcasms. The Rabbin then impetuously broke up the assembly, and vowed 'only to return with the thunderbolt in his hand.'

In anticipation of the threatened excommunication, Spinoza wisely withdrew himself from the Synagogue—a step which profoundly mortified his enemies, as he thereby rendered futile all intimidations which had been employed against him, particularly the otherwise terrible excommunication; for what terror could such a sentence inspire in one who voluntarily absented himself from the society which pretended to exclude him?

Dreading his ability, and the force of his example, the Synagogue made him an offer of an annual pension of a thousand florins, if he would only consent to be silent, and assist from time to time at their ceremonies. Spinoza, indignant at such an attempt to palter with his conscience, refused it with scorn. One evening, as he was coming out of the theatre, where he had been relaxing his overtasked mind, he was startled by the fierce expression of a dark face, thrust eagerly before his. The glare of bloodthirsty fanaticism arrested him; a knife gleamed in the air, and he had barely time to parry the blow. It fell upon his chest, but, fortunately deadened in its force, only tore his coat. The assassin escaped. Spinoza walked home thoughtful.*

The day of excommunication at length arrived; and a vast concourse of Jews assembled to witness the awful ceremony. It began by the solemn and silent lighting of a quantity of black wax candles, and by opening the tabernacle wherein were deposited the Books of

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* Some of the biographers contradict Bayle's statement of the assassination being attempted as Spinoza was leaving the theatre, and declare that he was coming from the Synagogue; but they forget that he had entirely renounced going there, and this was the probable motive of the assassin.

the Law of Moses. Thus were the dim imaginations of the faithful prepared for all the horror of the scene. Morteira, the ancient friend and master, now the fiercest enemy of the condemned, was to order the execution of the sentence. He stood there, pained, but implacable; the people fixed their eager eyes upon him. High above, the chanter rose and chanted forth, in loud lugubrious tones, the words of execration; while from the opposite side another mingled with these curses the thrilling sounds of the trumpet; and now the black candles were reversed, and were made to melt drop by drop into a huge tub filled with blood. This spectacle—a symbol of the most terrible faith—made the whole assembly shudder; and when the final *Anathema Maranatha!* were uttered, and the lights all suddenly immersed in the blood, a cry of religious horror and execration burst from all; and in that solemn darkness, and to those solemn curses, they shouted Amen, Amen!

Thus was the young truth-seeker expelled from his community, his friends and relations forbidden to hold intercourse with him. Like the young and energetic Shelley, who afterwards imitated him, he found himself an outcast in this busy world, with no other guides through its perplexing labyrinths than sincerity and self-dependence. Two or three new friends soon presented themselves; men who warred against their religion as he had warred against his own; and a bond of sympathy was forged out of a common injustice. Here again we trace a resemblance to Shelley, who, discountenanced by his relations, sought amongst a few sceptical friends to supply the affections he was thus deprived of. Like Spinoza, he too had only sisters, with whom he had been brought up. No doubt, in both cases, the consciousness of sincerity, and the pride of martyrdom, were great sustainments in this combat with society. They are always so; and it is well that they are so, or the battle would never be fought; but they never entirely replace the affections. Shut out from our family, we may seek a brotherhood of apostasy; but these new and precarious intellectual sympathies are small compensation for the loss of the emotional sympathies, with all their links of association, and all their memories of childhood.

Spinoza must have felt this, and, to fill the void of his yearning heart, he sought the daughter of his friend and master, Van den Ende, as his wife.

This Van den Ende had some influence on Spinoza's life. He was a physician in Amsterdam, who conducted a philological semi-

nary with such success, that all the wealthy citizens sent him their sons; but it was afterwards asserted, that to every dose of Latin he added a grain of atheism. He undertook to instruct Spinoza in Latin, and to give him board and lodging, on condition that he should subsequently aid him in instructing his scholars. This Spinoza accepted with joy; for although master of the Hebrew, German, Spanish, Portuguese (and of course Dutch) languages, he had long felt the urgent necessity of Latin.

Van den Ende had a daughter; her personal charms were equivocal, but she was thoroughly versed in Latin, and was an accomplished musician. The task of teaching young Benedict generally fell to her: and as a consequence the pupil soon became in love with the tutor. We often picture this courtship as a sort of odd reverse of Abelard and Heloise. Spinoza, we fancy, not inattentive to the instruction, but the more in love with it coming from so soft a mouth: not inattentive, yet not wholly absorbed. He watches her hand as it moves along the page, and longs to squeeze it. While 'looking out' in the dictionary, their hands touch—and he is thrilled; but the word is *found*, nevertheless. The lesson ended, he ventures on a timid compliment, which she receives with a kind smile; but the smile is lost, for the bashful philosopher has his eyes on the ground; when he raises them, it is to see her trip away to household duties, or to another pupil: and he looks after her sighing. But, alas for maidenly discernment! our female Abelard was more captivated by the showy attractions of a certain Kerkering, a young Hamburg merchant, who had also taken lessons in Latin and love from the fair teacher; and who, having backed his pretensions by the more potent seductions of pearl necklaces, rings, etc., quite cast poor Benedict into the shade, who then turned from love to philosophy.

His progress in Latin had however been considerable; he read it with facility, and found it invaluable in his philosophical studies, especially as the works of Descartes now fell into his hands: these he studied with intense avidity, feeling that a new world was therein revealed. The laws of the ancient Jewish doctors expressly enjoin the necessity of learning some mechanical art, as well as the study of the law. It was not enough, they said, to be a scholar—the means of subsistence must also be learned. Spinoza had accordingly, while belonging to the Synagogue, learnt the art of polishing glasses for telescopes, microscopes, etc., in which he arrived at such proficiency that Leibnitz, writing to him, mentioned,

'Among the honourable things which fame has acquainted me with respecting you, I learn with no small interest that you are a clever optician.' By polishing glasses he gained a subsistence—humble, it is true, but equal to his wants. To this he joined, by way of relaxation, the study of design, and soon became very expert. Colérus had a portfolio of portraits of several distinguished men, sketched by him; and one among them was a portrait of himself, in the dress of Masaniello.*

In his eight-and-twentieth year Spinoza left his natal city of Amsterdam, and resolving to devote his life to study, retired to Rhynsburg, near Leyden, where, still pursuing his trade as a glass-polisher, he devoted every spare hour to philosophy. The fruits of his solitude were the *Abridgment of the Meditations of Descartes,* with an Appendix, in which he first disclosed the principal points of his own system. This is a very interesting work. It contains the most accurate and comprehensible account of Descartes ever written; and the Appendix is curious, as containing the germ of the *Ethica.* It made a profound sensation; and when, the following year, he removed to Woorburg, a small village near the Hague, his reputation attracted to him a great concourse of visitors. Many enmities were excited amongst the disciples of Descartes, by the exposition of the weak points of their master's system; and Spinoza had to suffer their rude attacks in consequence. But the attention of all thinking men was fixed upon him; and the clearness and precision of his work won him admiration. So many new friendships did he form, that he at last yielded to the numerous solicitations that he should come and live entirely at the Hague. It was not the learned alone who sought his friendship; men of rank in public affairs were also numbered amongst them. Of the latter we may mention the celebrated Jan de Witt, who loved Spinoza, and profited by his advice in many an emergency. The great Condé also, during the invasion of Holland by the French, sent to desire Spinoza to come and see him. The Philosopher obeyed, but the Prince was prevented from keeping his appointment—to his own loss. This journey was very near proving fatal to Spinoza. The populace having learned that he had been in communication with the enemy, began to suspect him of being a spy. His landlord, alarmed at

* 'Your enemies have not failed to assert that by that you pretended to show that you would create in a little while the same uproar in Christianity that Masaniello created in Naples.'—*Rencontre de Bayle avec Spinoza dans l'autre Monde.* 1711.

these reports, warned him of them; he feared, he said, that the populace would attack the house. 'Fear nothing,' replied Spinoza calmly; 'it is easy for me to justify myself, and there are persons enough who know the object of my journey; but whatever may arrive, as soon as the people assemble before your door, I will go out and meet them, even though I should share the fate of De Witt.' The same calm courage which made him proclaim the truth, now made him ready to confront the infuriated populace. Fortunately all passed off in peace, and he was left to his studies. Karl Ludwig, anxious to secure so illustrious a thinker, offered him the vacant chair of Philosophy at Heidelberg, which, however, Spinoza could not accept, conscious that the philosophy he would teach was too closely allied to theology not to trench on its dogmas; and the Elector had expressly stipulated that he should teach nothing which could prejudice the established religion. He therefore begged to decline it, as his public duties would interfere with his private meditations. Yet it was both a lucrative and honourable post he refused; but a philosophical contempt for worldly honours was amongst his characteristics.

It is invigorating to contemplate Spinoza's life. Dependent on his own manual exertions for his daily bread, limited in his wants, and declining all pecuniary assistance so liberally offered by his friends, he was always at ease, cheerful, and occupied. There is an heroic firmness traceable in every act of his life; there is a perpetual sense of man's independence, worthy all imitation. He refuses to accept the belief of another man—he will believe for himself; he sees mysteries around him, awful, inexplicable; but he will accept of no man's explanation. God has given him a soul, and with that he will solve the problem, or remain without a solution. He leaves the Synagogue; he leaves Descartes; he thinks for himself. In a far subordinate sphere he will also assert his independence. Having but the most miserable pittance, and with the purses of his friends open to him, he preferred limiting his desires, to accepting their bounties. He preferred working, and gaining his own subsistence, so long as it was to be gained. This was no crotchet, neither was it ignoble calculation. The friends were sincere, their offers were were sincere: he knew it, but thanked them, and declined. The heritage, which on his father's death fell to his lot, he resigned to his sisters. The large property which his friend Simon de Vries had announced his intention of leaving him, he would not consent to accept; but made Simon alter his will in favour of his brother

at Schiedam. The pension offered him if he would dedicate his next work to Louis XIV. he refused, 'having no intention of dedicating anything to that monarch.' He was indebted to no one but to God; who had given him talents, and energy to make those talents available, not to let them and him rot in idleness, or in ignoble dependence, while all the world had to toil.*

Yet it was a hard, griping poverty that he endured. On looking over his papers after his death, they found accounts of his expenditure. One day he ate nothing but a *soupe au lait*, with a little butter, which cost about three halfpence, and a pot of beer, which cost three farthings more. Another day he lived on a basin of gruel, with some butter and raisins, which cost him twopence halfpenny; 'And,' says the pastor Colérus, 'although often invited to dinner, he preferred the scanty meal that he found at home, to dining sumptuously at the expense of another.' This was the man who was, by his contemporaries, branded with the names of Atheist and Epicurean; and who has borne these names for ever after through all Europe, excepting only Germany. While on the one hand no man was perhaps ever more filled with religion (so that Novalis could call him 'a God-intoxicated man'), on the other hand his Epicureanism, at twopence-halfpenny sterling per diem, stands a legible charge against him.

The publication of his *Tractatus Theologico-Politicus* was an event of some importance, both in the history of philosophy and of Spinoza. The state of men's minds at that period was not favourable to the reception of any great philosophical system; and Spinoza found himself obliged to prepare the way for his future doctrines, by examining the nature of that ecclesiastical power which could excite at will such violent perturbation in the State, and by examining also the foundations on which that power reposed. This great question still agitates mankind; and it is as curious as instructive to observe that the late orthodox and estimable Dr. Arnold taught a doctrine precisely similar to that taught by the heretical and persecuted Spinoza.†

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* It was in a man's own energy that he saw the germ of worth and greatness, and wisely ridiculed the notion of patronage in this noteworthy passage: 'Governments should never found academies, for they serve more to oppress than to encourage genius. The unique method of making the arts and sciences flourish, is to allow every individual to teach what he thinks, at his own risk and peril.'—*Tract. Polit.* c. 8, § 49.

† Compare Arnold, *Introductory Lectures on Modern History:* Appendix to the first Lecture.

Times were troubled. Holland, it is true, was reposing on her laurels, won in the long and desperate struggle against Spain. Having freed herself from a foreign yoke, she had, one would fancy, little now to do but to complete her canals, extend her commerce, and enjoy her peace. But this land of political freedom—this ark of refuge for the persecuted of all nations—the republic whose banner was freedom, and in whose cities European freethinkers published their works—was disturbed by theological faction. The persecuted Jews might flock from Spain and Portugal, the synagogue might rear itself beside the church; the Protestants of France and Belgium were welcome as brothers and citizens; but, arrived there, the fugitives might witness, even there, the implacable war of party. Toleration was afforded to political freethinking, and to the diversities of religion; but, within the pale of the State religion, malice and all uncharitableness were daily witnessed. There the Gomarists and Arminians disputed concerning the infallibility of their doctrines, and cloaked their political ambition under evangelical protestations.*

This was the state of things on the appearance of the *Tractatus*. Spinoza, seeing the deplorable dissensions of the theologians, endeavoured to make evident the necessity of a State religion, which, without absolutely imposing, or interfering with, private creeds, should regulate all outward observances. Because, as it is the office of the State to watch over all that concerns the common welfare, so should it watch over the Church, and direct it according to the general wish. But two things perfectly distinct must not here be confounded, viz. liberty of observance and liberty of thought. The latter is independent of all civil power; but the former must be subject to it, for the sake of the public tranquillity.

Although this portion of the *Tractatus* could not have met with general approbation, yet it would scarcely have raised violent dissensions, had Spinoza confined himself to such speculation; but, anticipating the rationalism of modern Germans, he undertook a criticism of the Bible, and attacked the institution of priesthood as injurious to the general welfare. It is curious to notice Spinoza's anticipation of the Hegelian Christology, which, in the hands of Strauss, Feuerbach, and Bruno Bauer, has made so much noise in the theological world:—'I tell you,' says Spinoza, in his letter to Oldenburg, 'that it is not necessary for your salvation that

* Saintes, *Histoire de la Vie de Spinoza*, p. 63.

you should believe in Christ according to the flesh; but of that eternal son of God, *i. e. eternal wisdom of God,* which is manifested in all things, but mostly in the *human mind, and most of all in Jesus Christ,* a very different conception must be formed.'—'Dico ad salutem non esse omninò necesse, Christum secundum carnem noscere, sed de æterno illo filio Dei, hoc est, Dei æternâ sapientiâ, quæ sese in omnibus rebus, et maximè in mente humanâ et omnium maximè in Christo Jesu manifestavit, longè aliter sentiendum.'* The consequences were as might have been expected: the book was at once condemned, and forbidden to be received in almost every country. This, as usual, only gave a greater stimulus to curiosity, and the sensation the work produced may be judged of by the quantity of 'refutations' which appeared. Many were the artifices used to introduce it into the various countries. An edition was published at Leyden, under this title: *Dan. Hensii Operum Historicorum collectio prima. Edit. II., priori editione multo emendatior et auctior; accedunt quædam hactenus inedita.* This was reprinted at Amsterdam as *Henriquez de Villacorta, M. Dr. a Cubiculo Philippi IV., Caroli II., Archiatri Opera chirurgica omnia, sub auspiciis potentissimi Hispaniarum Regis.* This absurd title was adopted to pass it into Spain. Another edition in French, called *La Clef du Sanctuaire,* was published at Leyden in 1678, and in Amsterdam as *Traité des Cérémonies des Juifs,* and again as *Réflexions curieuses d'un Esprit désintéressé.*

Spinoza's devotion to study, with its concurrent abstemiousness and want of exercise, soon undermined his constitution; but he never complained. He suffered that, as he had suffered everything else, —in silence. Once only, a hint escapes him. 'If my life be continued,' he writes to a friend respecting a promise to explain certain matters. No plaint—no regret—merely a condition put upon a promise. He was a calm, brave man; he could confront disease and death, as he had confronted poverty and persecution. Bravery of the highest kind distinguished him through life, and it was not likely to fail him on the quitting it; and yet beneath that calm, cold stoicism, there was a childlike gaiety springing from a warm and sympathizing heart. His character was made up of generous simplicity and heroic forbearance. He could spare somewhat from even his scanty pittance to relieve the wretched. He taught the learned world the doctrines he had elaborated with endless toil;

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* *Opera Posthuma,* p. 450.

but he taught children to be regular in their attendance on divine service. He would question his host and hostess, on their return from church, respecting the sermon they had heard, and the benefit they had derived. He had no unwise proselytism which would destroy convictions in minds unfitted to receive others. One day his hostess asked him if he believed that she would be saved by her religion. He answered, 'Your religion is a good one—you ought not to seek another, nor doubt that yours will procure your salvation, provided you add to your piety the tranquil virtues of domestic life.' Words full of wisdom, springing from an affectionate and experienced mind.

So lived the Jew, Spinoza. So he developed his own nature, and assisted the development in others. Given up to philosophy, he found in it 'the true medicine of the soul' of which Cicero speaks.* His only relaxations were his pipe, receiving visitors, chatting to the people of his house, and watching spiders fight. This last amusement would make the tears roll down his cheeks with laughter.

The commencement of the year 1677 found him near his end. The phthisis, which he had suffered from for twenty years, now alarmingly increased. On Sunday, the 22nd February, he insisted on his kind host and hostess leaving him, and attending divine service, as he would not permit his illness to obstruct their devotions. They obeyed. On their return he talked with them about the sermon, and ate some broth with a good appetite. After dinner his friends returned to church, leaving the physician with him. When they came home they learned, with sorrow and surprise, that he had expired about three o'clock, in the presence of the physician, who seized what money there was on the table, together with a silver-handled knife, and left the body without further care. So died, in his forty-fifth year, in the full vigour and maturity of his intellect, Benedict Spinoza. 'Offer up with me a lock of hair to the manes of the holy but repudiated Spinoza!' exclaims the pious Schleiermacher. 'The great spirit of the world penetrated him; the Infinite was his beginning and his end; the universe his only and eternal love. He was filled with religion and religious feeling; and therefore it is that he stands alone, unapproachable; the master in his art, but elevated above the profane world, without adherents, and without even citizenship.'†

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* Cicero, *Tusc.* iii. 6. Compare also the fine saying of Giordano Bruno (p. 330).

† Schleiermacher, *Rede über die Religion*, p. 47.

§ II. Spinoza's Doctrine.

The system of Spinoza, which has excited so much odium, is but the logical development of the system of Descartes which has excited so much admiration. Curious! The demonstration of the existence of God was one of Descartes' proudest laurels; the demonstration of the existence of God—and of no other existence being possible—condemned Spinoza to almost universal execration.

Dugald Stewart, generally one of the most candid of men, evidently shared the common prejudice with respect to Spinoza. He refuses therefore to admit that Spinoza, whom he dislikes, held opinions at all similar to those of Descartes, whom he admires. 'It was in little else,' says he, 'than his *physical principles* that he agreed with Descartes; for no two philosophers ever differed more widely in their metaphysical and theological tenets. Fontenelle characterizes his system as Cartesianism pushed to extravagance.' This is far from correct. Spinoza differed with Descartes on a few points, and agreed with him on most; the differences were only those of a more rigorous logical development of the principles both maintained.

It was at an important era in Spinoza's life that the writings of Descartes fell in his way. He was then striving to solve for himself the inexplicable riddle of the universe. He had studied with the learned Morteira; but though wise in all the wisdom of the Jews, he was still at an immeasurable distance from the desired solution. Descartes captivated him by the boldness of his logic, and by the independent nature of his Method, whereby truth was sought in the inner world of man, not in the outward world, nor in the records of authority. He studied Descartes with avidity; but he soon found that there also the riddle remained unsolved. He found the fact of his own existence somewhat superfluously established; but the far greater existence in which his own was included—of which the great All was but a varied manifestation—of this he found no demonstration. *Cogito, ergo sum,* is irresistible. *Cogito, ergo Deus est,* is no basis for philosophy.

Spinoza therefore asked himself—What is the *noumenon* which lies beneath all *phenomena?* We see everywhere transformations perishable and perishing; yet there must be something beneath, which is imperishable, immutable; what is it? We see a wondrous universe peopled with wondrous beings, yet none of these beings

exist *per se*, but *per aliud:* they are not the authors of their own existence; they do not rest upon their own reality, but on a greater reality—on that of the τὸ ἕν καὶ τὸ πᾶν. What is this reality?

The question, Spinoza thought, could not be answered by the idea of Perfection. No: the great reality of all existence is Substance. Not Substance in the gross and popular sense of 'body' or 'matter,' but the *substans*—that which is standing under all phenomena, supporting and giving them reality. What is a phenomenon? An appearance, a thing perceived: a state of the perceiving mind. But what originates this perception—what changes the mind from its prior to its present state? *Something*, external and extrinsic, changes it. What is this something? What it *is*, in itself, we can never know: because to know it would bring it under the forms and conditions of the mind, *i. e.* would constitute it a phenomenon:—unknown, therefore, but not denied—this *ens*—this something, *is;* and this, which Kant calls *noumenon*, Spinoza calls Substance.

All philosophy, as all existence, must start from *one* principle, which must be the ground of all. What is this commencement—this ἀρχή? Perfection, replies Descartes. No, says Spinoza, Perfection is an attribute of something prior to it. Substance is the ἀρχή. Descartes, in common with most philosophers, had assumed a duality: he had assumed a God, and a world created by God. Substance, to him, was by no means the primal fact of all existence; on the contrary, he maintained that both Extension and Thought were Substances; in other words, that mind and matter were distinct independent Substances, different in essence, and united only by God. Spinoza affirmed that both Extension and Thought were nothing more than Attributes; and by a subtle synthesis he reduced the duality of Descartes to an all-embracing unity, and thus arrived at a conception of the One.

The absolute Existence—the Substance—(call it what you will) is God. From Him all individual concrete existences arise. All that exists, exists in and by God; and can only thus be conceived. Here then the mystery of the world begins to unfold itself to the patient thinker; he recognizes God as the fountain of life; he sees in the universe nothing but the manifestation of God; the finite rests upon the bosom of the infinite; the inconceivable variety resolves itself into unity. There is but one reality, and that is God.

Such was Spinoza's solution of the problem: upon this he felt he could repose in peace, and upon this only. To live with God—

to know God with perfect knowledge, was the highest point of human development and happiness; and to this he consecrated his life. Taking the words of St. Paul, 'In Him we live, move, and have our being,' as his motto, he undertook to trace the relations of the world to God and to man, and those of man to society.

Spinoza agreed with Descartes in these three vital positions:— I. The basis of all certitude is Consciousness. II. Whatever is clearly perceived in Consciousness must therefore be necessarily true; and distinct ideas are true ideas, true expressions of objective existences. III. Consequently metaphysical problems are susceptible of mathematical demonstration.

The only novelty in Spinoza's Method is, that it is a further development of the Method of Descartes. Descartes thought that the mathematical Method was capable of being applied to metaphysics, but he did not apply it; Spinoza did apply it. This may seem a trifling addition; in reality it was the source of all the differences between Spinoza and his teacher. Descartes' principles will inevitably lead to Spinoza's system, if those principles are rigorously carried out. But Descartes never attempted the rigorous deduction of those consequences, which Spinoza, using the mathematical method, calmly and inflexibly deduced. Those who rebel at the conclusions drawn, must impugn the premisses from which they are drawn; for the system of Spinoza is neither more nor less than a demonstration.

To this demonstration we are about to lead our readers, and only beg of them a little steady attention and a little patient thought, convinced that they will then have little difficulty in finding their way. We shall translate some portions of the *Ethica* with the utmost care, because we think it every way advisable that the reader should have Spinoza's own mode of statement, and thereby be enabled to watch his manner of deducing his conclusions from his premisses. The work opens with eight

DEFINITIONS.

I. By a thing which is its own Cause I understand a thing, the essence of which involves existence; or the nature of which can only be considered as existent.*

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* This is an important definition, as it gets rid of the verbal perplexity hitherto felt relative to an 'endless chain of causes.' The doubter might always ask the cause of the first cause in the series; but here, by identifying cause and existence, Spinoza annihilates the difficulty.

II. A thing finite is that which can be limited (*terminari potest*) by another thing of the same nature, *e. g.* body is said to be finite because it can always be conceived as larger. So thought is limited by other thoughts. But body does not limit thought, nor thought limit body.

III. By Substance I understand that which exists in itself, and is conceived *per se:* in other words, the conception of which does not require the conception of anything else antecedent to it.

IV. By Attribute I understand that which the mind perceives as constituting the very essence of Substance.

V. By Modes I understand the accidents (*affectiones*) of Substance; or that which is in something else, through which also it is conceived.

VI. By God I understand the Being absolutely infinite, *i. e.* the Substance consisting of infinite Attributes, each of which expresses an infinite and eternal essence.

Explanation: I say absolutely infinite, but not infinite *suo genere;* for to whatever is infinite only *suo genere,* we can deny infinite Attributes; but that which is absolutely infinite includes in its essence everything which implies essence, and involves no negation.

VII. That thing is said to be free which exists by the sole necessity of its nature, and by itself alone is determined to action. But that thing is necessary, or rather constrained, which owes its existence to another, and acts according to certain and determinate causes.

VIII. By Eternity I understand Existence itself, in as far as it is conceived necessarily to follow from the sole definition of an eternal thing.

These are the Definitions: they need not long be dwelt on, although frequently referred to by him; above all, no objection ought to be raised against them, as unusual or untrue, for they are the meanings of various terms in constant use with Spinoza, and he has a right to use them as he pleases, provided he does not afterwards depart from this use, which he is careful not to do. We now come to the seven

AXIOMS.

I. Everything which is, is in itself, or in some other thing.

II. That which cannot be conceived through another (*per aliud*) must be conceived through itself (*per se*).

III. From a given determinate cause the effect necessarily follows; and *vice versâ*, if no determinate cause be given, no effect can follow.

IV. The knowledge of an effect depends on the knowledge of the cause, and implies it.

V. Things that have nothing in common with each other cannot be understood by means of each other, *i. e.* the conception of one does not involve the conception of the other.

VI. A true idea must agree with its object (*idea vera debet cum suo ideato convenire*).

VII. Whatever can be clearly conceived as non-existent, does not, in its essence, involve existence.

These axioms at once command assent, if we except the fourth, which, because the wording is ambiguous, has been sometimes thought absurd; but the truth is, that the opposite conceptions now prevalent respecting cause and effect prevent a real appreciation of this axiom. Mr. Hallam goes so far as to say, 'It seems to be in this fourth axiom, and in the proposition grounded upon it, that the fundamental fallacy lurks. The relation between a cause and effect is surely something perfectly different from our perfect comprehension of it, or indeed from our having any knowledge of it at all; much less can the contrary assertion be deemed axiomatic.'* There is a want of subtlety in this criticism, as well as a want of comprehension of Spinoza's doctrines; and we wonder it never suggested itself to Mr. Hallam that the modern notions of cause and effect do not correspond with the Spinozistic notions. In the above axiom it is not meant that there are no effects manifested to us of which we do not also know the causes—it is not meant that a man receiving a blow in the dark is not aware of that blow (effect), though ignorant of the immediate cause. What is meant is, that a complete and comprehensive knowledge of the effect is only to be obtained through a complete and comprehensive knowledge of the cause. If you would know the effect in its totality—in itself—you must know also the cause in its totality. This is obvious: for what is an effect?—an effect is a cause realized: it is the *natura naturans* conceived as *natura naturata*. We call the antecedent, Cause, and the sequent, Effect; but these are merely relative designations: the sequence itself is antecedent to some subsequent change, and the former antecedent was once only a

* Introduction to *Literature of Europe*, iv. 246.

sequent to its cause; and so on. Causation is change; when the change is completed, we name the result effect. It is only a matter of naming. But inciting thisc hange, causing it, as we say, there is some power (cause) in nature; to know this effect therefore,—that is, not merely to have a relative conception of our own condition consequent on it, but to comprehend this power, this reality, to penetrate its mystery, to see it in its totality, we must know *what* the effect is, and *how* it is; we must know its point of departure, and its point of destination; in a word, we must transcend the knowledge of phenomena, and acquire that of *noumena*. In a popular sense we are said to know effects, but to be ignorant of causes. Truly, we are ignorant of both—and equally ignorant. A knowledge of sequences we have, and of nothing more. The vital power determining these sequences we name, but cannot know; we may call it attraction, heat, electricity, polarization, etc.; but, having named, we have not explained it.

This is what Spinoza implicitly teaches; and had Mr. Hallam attended only to what the very next axiom proclaims, namely, that things having nothing in common with each other, cannot be understood by means of each other, *i. e.* the conception of one not involving the conception of the other—he would have understood Spinoza's meaning: for, if effect be *different* from cause, then its conception does not involve the conception of cause; but if it be the *same* as cause, then does the one conception involve that of the other; *ergo*, the more complete the knowledge of the one, the more complete the knowledge of the other. The reader will bear this in mind when studying Spinoza.

We will now proceed to the

PROPOSITIONS.

PROP. I. Substance is prior in nature to its accidents.

Demonstration. Per Definitions 3 and 5.

PROP. II. Two Substances, having different Attributes, have nothing in common with each other.

Demonst. This follows from Def. 3; for each Substance must be conceived in itself and through itself; in other words, the conception of one does not involve the conception of the other.

PROP. III. Of things which have nothing in common, one cannot be the cause of the other.*

* This fallacy has been one of the most influential corruptors of philosophical speculation. For many years it was undisputed; and most metaphysicians

Demonst. If they have nothing in common, then (per Axiom 5) they cannot be conceived by means of each other; *ergo* (per Axiom 4) one cannot be the cause of the other. Q. E. D.

PROP. IV. Two or more distinct things are distinguished among themselves either through the diversity of their Attributes, or through the diversity of their Modes.

Demonst. Everything which is, is in itself or in some other thing (per Axiom 1), that is (per Def. 3 and 5), there is nothing out of ourselves (*extra intellectum*) but Substance and its Modes. There is nothing out of ourselves whereby things can be distinguished amongst one another, except Substances, or (which is the same thing, per Def. 4)* their Attributes and Modes.

PROP. V. It is impossible that there should be two or more Substances of the same nature, or of the same Attribute.

Demonst. If there are many different Substances, they must be distinguished by the diversity of their Attributes or of their Modes (per Prop. 4). If only by the diversity of their Attributes, it is thereby conceded that there is nevertheless only one Substance of the same Attributes; but if by the diversity of their Modes, it follows that Substance being prior in nature to its Modes, it must be considered independently of them; that is (per Def. 3 and 6), cannot be conceived as distinguished from another; that is (per Prop. 4), there cannot be many Substances, but only one Substance. Q. E. D.

PROP. VI. One Substance cannot be created by another Substance.

Demonst. There cannot be two Substances with the same Attributes (per Prop. 5); *i. e.* (per Prop. 2), having anything in common with each other; and therefore (per Prop. 3) one cannot be the cause of the other.

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still adhere to it. See Mill's *System of Logic*, ii. 376–386. The assertion is that only *like* can act upon *like*. This was the assumption of Anaxagoras, and the groundwork of his system. If the assumption be correct, his system is true. But although it is true that *like* produces (causes) *like*, it is also as true that *like* produces *unlike*: thus fire produces *pain* when applied to our bodies, *explosion* when applied to gunpowder, *charcoal* when applied to wood; all these effects are unlike the cause. Spinoza's position is logical; those who have since upheld the fallacy have not that excuse.

* In the original, by a slip of the pen, Axiom 4 is referred to instead of Def. 4; and Auerbach has followed the error in his translation. We notice it because the reference to Axiom 4 is meaningless, and apt to puzzle the student.

Corollary. Hence it follows that Substance cannot be created by anything else. For there is nothing in existence except Substance and its Modes (per Axiom 1, and Def. 3 and 5); now this Substance, not being created by another, is self-caused.

Corollary 2. This proposition is more easily to be demonstrated by the absurdity of its contradiction;—for if Substance can be created by anything else, the conception of it would depend on the conception of the cause (per Axiom 4*), and hence (per Def. 3) it would not be Substance.

PROP. VII. It pertains to the nature of Substance to exist.

Demonst. Substance cannot be created by anything else (per Coroll. Prop. 6), and is therefore the cause of itself; *i. e.* (per Def. 1) its essence necessarily involves existence; or it pertains to the nature of Substance to exist. Q. E. D.

PROP. VIII. All Substance is necessarily infinite.

Demonst. There exists but one Substance of the same Attribute; and it must either exist as infinite or as finite. But not as finite, for (per Def. 2) as finite it must be limited by another Substance of the same nature, and in that case there would be two Substances of the same Attribute, which (per Prop. 5) is absurd. Substance therefore is infinite. Q. E. D.

Scholium.—I do not doubt that to all who judge confusedly of things, and are not wont to inquire into first causes, it will be difficult to understand the demonstration of Prop. 7, because they do not sufficiently distinguish between the modifications of Substance, and Substance itself, and are ignorant of the manner in which things are produced. Hence it follows, that seeing natural things have a commencement, they attribute a commencement to Substances; for he who knows not the true causes of things, confounds all things, and sees no reason why trees should not talk like men; or why men should not be formed from stones as well as from seeds; or why all forms cannot be changed into all other forms. So, also, those who confound the divine nature with the human, naturally attribute human affections to God, especially as they are ignorant how these affections are produced in the mind. But if men attended to the nature of Substance, they would not in the least doubt the truth of Prop. 7; nay, this proposition would be an axiom to all, and would be numbered among common notions. For by Sub-

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* Here the potency and significance of Axiom 4 begins to unfold itself.

stance they would understand that which exists in itself, and is conceived through itself; *i. e.* the knowledge of which does not require the knowledge of anything antecedent to it.* But by modification they would understand that which is in another thing, the conception of which is formed through the conception of the thing in which it is, or to which it belongs: we can therefore have correct ideas of non-existent modifications, because, although out of the understanding they have no reality, yet their essence is so comprehended in that of another, that they can be conceived through this other. The truth of Substance (out of the understanding) lies nowhere but in itself, because it is conceived *per se*. If therefore any one says that he has a distinct and clear idea of Substance, and yet doubts whether such a Substance exist, this is as much as to say that he has a true idea, and nevertheless doubts whether it be not false (as a little attention sufficiently manifests); or, if any man affirms Substance to be created, he at the same time affirms that a true idea has become false; than which nothing can be more absurd. Hence it is necessarily confessed that the existence of Substance, as well as its essence, is an eternal truth. And hence we must conclude that there is only one Substance possessing the same Attribute; a position which requires here a fuller development. I note therefore

1. That the correct definition of a thing includes and expresses nothing but the nature of the thing defined. From which it follows—

2. That no definition includes or expresses a distinct number of individuals, because it expresses nothing but the nature of the thing defined; *e. g.* the definition of a triangle expresses no more than the nature of a triangle, and not any fixed number of triangles.

3. There must necessarily be a distinct cause for the existence of every existing thing.

4. This cause, by reason of which anything exists, must be either contained in the nature and definition of the existing thing (viz. that it pertains to its nature to exist), or else must lie beyond it—must be something different from it.

From these positions it follows, that if a certain number of individuals exist, there must necessarily be a cause why that number,

* The reader will bear in mind the result of Descartes' philosophy, if he would fully seize Spinoza's meaning and the basis on which it reposes. Descartes, as we saw, could find nothing indubitable but existence. Existence was the primal fact of all philosophy, self-evident and indisputable.

and not a larger or smaller number: *e.g.* if in the world twenty men exist (whom, for greater perspicuity, I suppose to exist at once, no more having previously existed), it will not be sufficient to show the reason why twenty men exist, to point to human nature as the cause, but it will further be necessary to show cause why only twenty men exist, because (per note 3) a cause must be given for the existence of everything. This cause however (per notes 2 and 3) cannot be contained in human nature itself, because the true definition of man does not involve the number twenty. Hence (per note 4) the cause why twenty men exist, and why each individual exists, must lie beyond each of them; and therefore must we absolutely conclude that everything, the nature of which admits of many individuals, must necessarily have an external cause. As therefore it pertains to the nature of Substance to exist, so must its definition include a necessary existence, and consequently from its sole definition we must conclude its existence. But, as from its definition, as already shown in notes 2 and 3, it is not possible to conclude the existence of many Substances, *ergo* it necessarily follows that only *one* Substance of the same nature can exist.'

Here we may pause in our translation, before we penetrate too far in this geometrical exposition of Spinoza's theology. Enough has already been given to exhibit the rigour and precision with which the consequences are deduced step by step, each proposition being evolved from those which preceded it; and he who wishes to follow the system in detail must open the *Ethics* for himself, abridgment being impossible. To complete our exposition of the doctrine, we shall merely state in a few sentences the principal positions:—

There is but one infinite Substance, and that is God. Whatever is, is in God; and without Him, nothing can be conceived. He is the universal Being of which all things are the manifestations. He is the sole Substance; everything else is a Mode; yet, without Substance, Mode cannot exist. God, viewed under the attributes of Infinite Substance, is the *natura naturans*,—viewed as a manifestation, as the Modes under which his attributes appear, he is the *natura naturata*. He is the cause of all things, and that immanently, but not transiently. He has two infinite attributes—Extension and Thought. Extension is visible Thought, and Thought is invisible Extension: they are the Objective and Subjective of which God is the Identity. Every *thing* is a mode of God's attribute of Extension; every *thought*, wish, or feeling, a mode of his attribute of Thought. That Extension and Thought are not Substances, as

Descartes maintained, is obvious from this: that they are not conceived *per se*, but *per aliud*. *Something* is extended: what is? Not the Extension itself, but something prior to it, viz. Substance. Substance is uncreated, but creates by the internal necessity of its nature. There may be many existing things, but only one existence; many forms, but only one Substance. God is the '*idea immanens*'—the One and All.

Such is a brief outline of the fundamental doctrine of Spinoza; and now we ask the reader, can he reconcile the fact of this being a most religious philosophy, with the other fact of its having been almost universally branded with Atheism? Is this intelligible? Yes; three causes present themselves at once. 1. The readiness with which that term of obloquy has been applied to opponents, from time immemorial—to Socrates as to Gottlieb Fichte. 2. The obscurity of polemical vision, and the rashness of party judgment. 3. The use of the ambiguous word Substance, whereby God was confounded with the material world.

This last point is the most important, and deserves attention. To say 'God is the infinite substance,' does look, at first sight, like the atheism of the D'Holbach School; but no one could ever have read twenty pages of Spinoza without perceiving this to be a misunderstanding; for he expressly teaches that God is *not* corporeal, but that body is a Mode of Extension.* No: God is not the material universe, but the universe is one aspect of his infinite Attribute of Extension: he is the *identity* of the *natura naturans* and the *natura naturata*.†

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* Dugald Stewart somewhat naïvely remarks that 'in no part of Spinoza's works has he avowed himself an Atheist' (he would have been very much astonished at the charge); 'but it will not be disputed by those who comprehend the drift of his reasonings, that, in point of practical tendency, Atheism and Spinozism are one and the same.' It may be so; yet nothing can warrant the accusation of Atheism, merely because Spinoza's doctrines may have the same practical tendency as that of Atheism. Spinoza did not deny the existence of God; he denied the existence of the world: he was consequently an *Acosmist*, not an Atheist. If the practical tendency of these two opposite systems really is the same, Spinoza could not help it.

† 'Natura naturans et natura naturata in identitate Deus est.' It must be borne in mind that *identity* does not (as in common usage) mean *sameness*, but the root from which spring two opposite stems, and in which they have a common life. Man, for instance, is the identity of soul and body; water is the identity of oxygen and hydrogen. Great mistakes are constantly being made, owing to overlooking this distinction of vulgar and philosophical terms.

It is a mere verbal resemblance, therefore, this, of Spinozism to Atheism; but the history of philosophy shows too many instances of verbal analogies and ambiguities becoming sources of grave error, to astonish any reader.

Next to the inevitable misapprehensions created by Spinoza's use of the word Substance, we must rank among the sources of his ill repute the misapprehensions created by his doctrine of Final Causes. Although Bacon energetically reprobated the pursuit of Final Causes —those 'barren virgins,' as he characteristically styled them—pointing out the productive error of all such pursuit; and although the advance and extension of science has gradually more and more displaced this pursuit, it is still followed by minds of splendid reach and attainment, as the surest principle of research in some departments. But although the error has the countenance of men whom we cannot speak of without respect, the fact itself that only in those departments of inquiry, wherein imperfect knowledge still permits the Metaphysical Method to exercise its perverting influence, are Final Causes ever appealed to, is significant, we think, of the *nature* of the error. While no Astronomer, no Physicist, no Chemist reasons teleologically, there are many Biologists who proclaim teleology to be a luminous guide. Cuvier declared that to it he owed his discoveries; Owen declares that it has often aided him. We cannot here pause to discuss the validity of final causes, but the reader will probably be glad to have Spinoza's remarkable analysis which he throws into an Appendix at the end of the book *De Deo*:—

'Men do all things for the sake of an end, namely the good, or useful, which they desire. Hence it comes that they always seek to know only the final causes of things which have taken place, and when they have heard these they are satisfied, not having within themselves any cause for further doubt. But if they are unable to learn these final causes from some one else, nothing remains to them but to turn in upon themselves, and to reflect on the ends by which they are themselves wont to be determined to similar actions; and thus they necessarily judge of the mind of another by their own. Further, as within themselves and out of themselves they discover many means which are highly conducive to the pursuit of their own advantage,—for example, eyes to see with, teeth to masticate with, vegetables and animals for food, the sun to give them light, the sea to nourish fish, etc.,—so they come to consider all natural things as means for their benefit: and because they are aware that these things have been found, and not prepared by them, they have

been led to believe that some one else has adapted these means to their use. For after considering things in the light of *means*, they could not believe these things to have made themselves, but arguing from their own practice of preparing means for their use, they must conclude that there is some ruler or rulers of nature endowed with human freedom, who have provided all these things for them, and have made them all for the use of men. Moreover, since they have never heard anything of the mind of those rulers, they must necessarily judge of this mind also by their own; and hence they have argued that the Gods direct all things for the advantage of man, in order that they may subdue him to themselves, and be held in the highest honour by him. Hence each has devised, according to his character, a different mode of worshiping God, in order that God might love him more than others, and might direct all nature to the advantage of his blind cupidity and insatiable avarice. Thus this prejudice has converted itself into superstition, and has struck deep root into men's minds; and this has been the cause why men in general have eagerly striven to explain the final causes of all things. But while they have sought to show that Nature does nothing in vain (*i. e.* which is not fit for the use of men), they seem to me to have shown nothing else than that Nature and the Gods are as foolish as men. And observe, I pray you, to what a point this opinion has brought them. Together with the many useful things in Nature, they necessarily found not a few injurious things, namely tempests, earthquakes, diseases, etc.; these they supposed happened because the Gods were angry on account of offences committed against them by men, or because of faults incurred in their worship; and although experience every day protests, and shows by infinite examples that benefits and injuries happen indifferently to pious and ungodly persons, they do not therefore renounce their inveterate prejudice. For it was easier to them to class these phenomena among other things, the cause of which was unknown to them, and thus retain their present and innate condition of ignorance, than to destroy all the fabric of their belief, and excogitate a new one.'

We cannot pursue the argument further, because in the subsequent positions Spinoza refers to propositions proved in the *Ethics;* what has been given will however suffice to show how clearly and emphatically he described the anthropomorphic tendency of judging Infinite by Finite wisdom. With it we conclude the exposition of Spinoza's theology—one of the most extraordinary

efforts of speculative faculty which history has revealed to us. We have witnessed the mathematical rigour with which it is developed; we have followed him step by step, dragged onwards by his irresistible logic; and yet the final impression left on our minds is, that the system has a *logical* but not a *vital* truth. We shrink back from the consequences whither it so irresistibly leads us; we gaze over the abyss to the edge of which we have been dragged, and seeing naught but chaos and despair, we refuse to build our temple there. We retrace our steps with hurried earnestness, to see if no false route has been taken; we examine every one of his positions, to see if there be not some secret error, parent of all other errors. Arrived at the starting-point, we are forced to confess that we see no error—that each conclusion is but the development of antecedent positions; and yet, in spite of this, the mind refuses to accept the conclusions.

This, then, is the state of the inquirer: he sees a vast chain of reasoning carried on with the strictest rigour. He has not been dazzled by rhetoric nor confused by illustrations. There has been no artful appeal to his prejudices or passions; he has been treated as a reasoning being, and has no more been able to doubt the positions, after once assenting to the definitions and axioms, than he is able to doubt the positions of Euclid. And yet we again say that the conclusions are repugned, refused; they are not the truth the inquirer has been seeking; they are no expressions of the thousandfold life, the enigma of which he has been endeavouring to solve.

Unable to see where this discrepancy lies, he turns with impatience to the works of others, and seeks in criticisms and refutations an outlet from his difficulty. But—and it is a curious point in the history of philosophy—he finds that this bold and extraordinary thinker has never been refuted by any one meeting him on his own ground. Men have taken up separate propositions, and having wrenched them from their connection with the whole system, have easily shown them to be quite at variance with—the systems of the refuters. This is easy work.* On the other hand, the inquirer

* This is the way Bayle answers Spinoza; yet his answer has been pronounced by Dugald Stewart 'one of the most elaborate and acute refutations which has yet appeared.' Mr. Stewart's dislike of the consequences he believed inseparable from Spinozism has here, we think, biassed his judgment. Bayle's attempt at a refutation is now pretty generally considered to be pitiable. Jacobi declares Spinozism to be unanswerable by those who simply reason on the problem: faith alone can solve it otherwise.

finds that the great metaphysicians of Germany adopt Spinoza's fundamental positions, differing with him only on points of detail or of language. In their works the consequences do not look so appalling, because they are set forth in lofty terms and ambiguous eloquence; but the difference is only verbal. Is there, then, no alternative? Must I accept Spinoza's system, repugnant as it is? Such is the inquirer's perplexity.

To release him from this perplexity will perhaps be possible, although only possible, we believe, by arguments which cut away the root of all metaphysical knowledge whatever. If Spinoza is in error, the error must be *initial*, for we have just admitted that it does not lie in any illogical deduction. And initial the error is. The method brings it into distinctness. The application of Geometry to Metaphysics is the process most repulsive to metaphysicians, because it best serves to elucidate the nullity of their attempts. Geometry is purely deductive; from a few definitions and axioms the whole series of consequences is evolved. Metaphysics also is purely deductive; from a few definitions and axioms it constructs a universe. M. Damiron, in his very able *Mémoire*, denies that the geometrical method can be applied to Metaphysics, because our intelligence cannot form notions so clear and necessary respecting substance, cause, time, good and evil, as respecting points, lines, and surfaces; and whenever such clear notions have been attempted it has only been by sacrificing something of the reality, by the consideration of one aspect to the exclusion of the other.* This is perfectly true if applied to metaphysicians in general; but is certainly not true as applied to Spinoza, whose notions of substance, cause, etc. are not less clear than his notions of lines and surfaces, —a point we shall insist on presently. Meanwhile let us ask, *why* can we not form notions of cause, substance, and the rest, equalling in clearness our notions of lines and surfaces? The answer to this question dooms metaphysics to eternal uncertainty: It is because Geometry *never quits the sphere of its first assumption*, that its axioms retain their necessary clearness, and its consequences their necessary truth. It begins with lines and surfaces, with lines and surfaces it ends; it is a purely subjective and deductive science. Its truths, when objectively applied, include *no other elements* than those *originally* given; when from *ideal* lines and the relations of those lines we pass to *real* lines and relations, we are still strictly within

* *Mémoire sur Spinoza*, 19, 20.

the sphere of lines and their relations; and the mightiest geometry can tell us nothing whatever of any *other* property of substance; it is powerless before any relations except those of surfaces. If Metaphysics could thus remain within the sphere of its original assumption, it also might rival geometry in precision; but Metaphysics unhappily starts from the subjective sphere, and immediately passes on to the objective, pretending to *include* in its circle far more than is given in the original subjective datum, pretending indeed to disclose the *whole nature* of substance, cause, time, and space, and not merely *certain relations among our ideas* of these. When, for example, Spinoza passes from his ideal distinction of cause and effect to real applications, as when he proves that God must act according to the laws of His own nature, yet without constraint, nothing determining Him save His own perfection, it is evident that by this Spinoza believes the purely subjective definition he has framed expresses the whole truth of objective reality; he pretends to *know* the nature of God, and to know it through the notions he has framed of cause and effect. The error here is as great, though not so potent, as if a mathematician were to deduce the chemical properties of a salt from the properties of right angles. To select another example, the fifth proposition, on which so much of Spinoza's system depends: 'It is impossible that there should be two or more Substances of the same nature, or of the same Attribute.' This is subjectively true; as true as a proposition in Euclid; that is to say, it is perfectly coherent with all that Spinoza teaches of Substance and Attribute; but if we pass from his subjective circle out into the great world of reality—if we disregard his *definition*, and look only at actual substances before us—say two minerals—we then fail to detect any proof of his subjective definition necessarily or even probably according with objective fact, since we perceive the definition to be framed from his ideas, and not founded on objective reality.

The mathematician deduces conclusions from purely subjective distinctions, and these conclusions are found to correspond with objective fact, to nearly the whole extent of what was originally assumed; namely the relations of surfaces, and no further. The metaphysician deduces conclusions equally subjective, and it may be that such conclusions will apply to objective fact (as when it is said 'nothing can be and not be at the same moment'), but the moment he transcends the circle of subjective distinction, as when he speaks of Cause, Time, Space, and Substance, his ideas are necessarily in-

distinct, because he cannot know these *things*: he can only frame logical conclusions respecting them, and these logical conclusions at every step need *verification*.

This of course the metaphysician will deny. He believes in the validity of Reason. He maintains the perfect competence of human intellect to know and discourse on Cause, Time, Space, and Substance; but he has not the same clear argument Spinoza had, on which to ground this belief. And here we are face to face with the radical assumption which constitutes the initial error and logical perfection of Spinoza's system. He holds and expressly teaches that the *subjective idea* is the actual image or complete expression of the *objective fact*. 'Hoc est, id quod in intellectu objectivè continetur debet necessario in naturâ dari.' The order and connection of ideas is precisely the order and connection of things. In the Scholium to Prop. VIII. we have seen him maintaining that the correct definition of a thing expresses the nature of the thing, and nothing but its nature; which is true in one sense; for unless it express the nature of the thing the definition must be incorrect; but false in another and more important sense; for every definition we can frame only expresses *our* conceptions of the nature of the thing: and thus we may define the nature of the inhabitants of the moon, and adhere to our definitions with the utmost logical rigour, yet all the while be utterly removed from any real knowledge of those inhabitants. The position is logically deducible from Spinoza's conception of the relation between Thought and Extension as the two Attributes of Substance; but it is a position which is emphatically contradicted by all sound psychology. Nevertheless without it Metaphysics has no basis. Unless clear ideas are to be accepted as the truths of things, and unless every *idea*, which is distinctly conceived by the mind, has its *ideate*, or *object*,—metaphysicians are without plausible pretence.

Having thus signalized the fundamental position of Spinoza's doctrine, it is there, if anywhere, that we shall be able to show his fundamental error. On the truth or falsehood of this one assumption must Spinozism stand or fall; and we have formerly endeavoured to show that the assumption is false. Those who agree in the reasonings we adduced may escape Spinozism, but they escape it by denying the possibility of all Philosophy.

This consideration, that the mind is not a passive mirror reflecting the nature of things, but the partial creator of its own forms—that in perception there is nothing but certain changes in the per-

cipient—this consideration, we say, is the destruction of the very basis of metaphysics, for it expressly teaches that the subjective idea is *not* the correlate of the objective fact: and only upon the belief that our ideas are the perfect and adequate images of external things can any metaphysical speculation rest. Misled by the nature of geometry, which draws its truths from the mind as the spider draws the web from its bosom, Descartes assumed that metaphysical truths could be attained in the same way. This was a confusion of reasoning, yet Spinoza, Leibnitz, and their successors, followed him unhesitatingly. Spinoza however had read Bacon's denouncement of this *à priori* Method, though evidently unprepared to see the truth of the protest. It is curious to read his criticism of Bacon: he looks on it as that writer's great error, to have mistaken the knowledge of the first cause and origin of things. 'On the nature of mind, he says, Bacon speaks very confusedly; and while he proves nothing, judges much. For in the first place he supposes that the human intellect, besides the deceptions of the senses, is subject to the deceptions of its own nature, and that it conceives everything according to the analogies of its own nature, and not according to the analogies of the universe; so that it is like an unequal mirror to the rays of things, which mixes the conditions of its own nature with those of external things.'*

We look upon Spinoza's aberration as remarkable however, because he had also seen that in some sense the subjective was not the absolute expression of the objective; as is proved by his celebrated argument for the destruction of final causes, wherein he showed that *order* was a thing of the imagination, as were also right and wrong, useful and hurtful—these being merely such in relation to *us*. Still more striking is his anticipation of Kant in this passage: —'Ex quibus clarè videre est, mensuram, tempus, et numerum, nihil esse præter cogitandi, seu potiùs imaginandi modos;' which should have led him to suspect that the same law of mental forms was also applicable to all other subjects.

We have pointed out the initial error, let us now refer to the logical perfection of Spinoza's system. M. Damiron argues against the application of the geometric method on the ground of the imperfect conceptions men form of metaphysical objects; but this, as

* 'Nam primò supponit quod intellectus humanus, præter fallaciam sensuum, suâ solâ naturâ fallitur, omniaque fingit ex analogiâ suæ naturæ, et non ex analogiâ universi; adeò ut sit instar speculi inæqualis ad radias rerum, qui suam naturam naturæ rerum immiscet.'—*Epist.* ii., *Opera*, p. 398.

already hinted, cannot be said of Spinoza's conceptions, they are as perfect and as clear as his conceptions of geometry; whether they are as *accurate* and comprehensive as they are clear, is another question. Spinoza would maintain them to be so; and he would be justified on his principles; justified indeed on all logical principles of metaphysics. Did we not see that the perfection of Mathematics was owing to its never transcending the sphere of its first assumption, never including other elements than those included in its definitions and axioms? Precisely this may also be said of Spinozism: its original assumption is that every clear idea expresses the actual nature of the object; and hence whatever conclusions are logically evolved from clear ideas will be found objectively represented in the external world. Whether the mathematician works a problem in his mind with ideal surfaces, or actually juxtaposes substances and points out their relations of surface, the truths deduced are equally valid; in the same way whenever a Spinozist works out a problem with ideal elements, he is doing no more—on his assumption—than if he had the objective elements before him, and could visibly disclose their relations. Hence the full justification of Spinoza's employment of the geometrical method. And his employment of it, while exciting the admiration of all posterity for the gigantic power of thought disclosed, has had the further advantage of bringing within the narrowest possible field the whole question of the possibility of Metaphysical certitude.

We must not however longer linger with this great and good man and his works. A brave and simple man, earnestly meditating on the deepest subjects that can occupy the human race, he produced a system which will ever remain as one of the most astounding efforts of abstract speculation—a system that has been decried, for nearly two centuries, as the most iniquitous and blasphemous of human invention; and which has now, within the last sixty years, become the acknowledged parent of a whole nation's philosophy, ranking among its admirers some of the most pious and illustrious intellects of the age. The ribald atheist turns out, on nearer acquaintance, to be a 'God-intoxicated man.' The blasphemous Jew becomes a pious, virtuous, and creative thinker. The dissolute heretic becomes a childlike, simple, self-denying, and heroic philosopher. We look into his works with calm earnestness, and read there another curious page of human history: the majestic struggle with the mysteries of existence has failed, as it always must fail; but the struggle demands our warmest admiration, and the man our ardent sympathy. Spi-

noza stands out from the dim past like a tall beacon, whose shadow is thrown athwart the sea, and whose light will serve to warn the wanderers from the shoals and rocks on which hundreds of their brethren have perished.*

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* Spinoza's works have been ably edited by Prof. Paulus, and better, recently by Bruder, in three volumes, 12mo. The edition we use is the quarto which appeared shortly after his death : *B. D. S. Opera Posthuma*, 1677. A very close and literal German translation in five small volumes, by Berthold Auerbach, was published in 1841. M. Emile Saisset published one more paraphrastic in French. We are aware of scarcely anything in English, critical or explanatory, except the account given in Mr. Hallam's *Introduction to the Literature of Europe*, and the articles *Spinoza* and *Spinozism* in the *Penny Cyclopædia* and *Spinoza's Life and Works* in the *Westminster Review*, May, 1843 (the three last by the present writer).

Since the first edition of this History there have appeared two remarkable articles by Mr. Froude,—one on Spinoza's Life in the *Oxford and Cambridge Review*, Oct. 1847, and one on his doctrine, *Westminster Review*, July, 1855. An analysis of the *Tractatus* appeared in the *British Quarterly* a few years ago; and a translation of the *Tractatus Politicus* by William Maccall, 1854.

Besides historians of philosophy the following writers may be consulted. Sigwart, *Der Spinozismus historisch und philosophisch erläutert;* Herder, *Gott, einige Gespräche über Spinoza's System;* Damiron, *Mémoire sur Spinoza et sa Doctrine* (in the *Mémoires de l'Académie*).

CHAPTER III.

FIRST CRISIS IN MODERN PHILOSOPHY.

THE doctrine of Spinoza was of great importance, if only because it brought about the first crisis in modern Philosophy. His doctrine was so clearly stated, and so rigorously deduced from admitted premisses, that he brought Philosophy into this dilemma:—

Either my premisses are correct, and we must admit that every clear and distinct idea is *absolutely* true; true, not only subjectively, but objectively;—If so, my system is true;

Or my premisses are false; the voice of Consciousness is not the voice of truth; and if so, then is my system false, but all Philosophy is impossible: since the only ground of Certitude—our Consciousness—is pronounced unstable, our only means of knowing the truth is pronounced fallacious.

Spinozism or Scepticism? choose between them, for you have no other choice.

Mankind refused however to make a choice. If the principles which Descartes had established could have no other result than Spinozism, it was worth while inquiring whether those principles themselves might not be modified.

The ground of discussion was shifted: psychology took the place of ontology. It was Descartes' theory of knowledge which led to Spinozism; that theory therefore must be examined: that theory henceforth becomes the great subject of discussion. Before deciding upon the merits of any system which embraced the great questions of Creation, the Deity, Immortality, etc., men saw that it was necessary to decide upon the competence of the human mind to solve such problems.

All knowledge must be obtained either through experience, or independent of experience. Knowledge dependent on experience must necessarily be merely knowledge of *phenomena*. All are agreed that experience can only be experience of ourselves as modified by objects. All are agreed that to know things *per se*—noumena—we must know them through some other channel than experience.

Have we, or have we not, that other channel? This is the problem.

Before we can dogmatize upon ontological subjects we must settle this question :—

Can we transcend the sphere of our Consciousness and know things per se ?

And this question further resolves itself into—*Have we ideas independent of experience ?*

To answer this question was the great object of succeeding philosophers. The fact that modern philosophy, until Fichte, was almost exclusively occupied with Psychology has been constantly noticed; but the reason why Psychology assumed this importance, the reason why it took the place of all the higher subjects of speculation, has not, we believe, been distinctly stated. Men have contented themselves with the fact that Psychology occupied little of the attention of antiquity, still less of the attention of the Middle Ages; and only in modern times has it been the real ground on which the contests of the schools have been carried on. Psychology was the result of a tendency similar to that which in science produced the Inductive Method. In both cases a necessity had arisen for a new course of investigation; it had become evident that men had begun at the wrong end, and that before a proper answer could be given to any of the questions agitated, it was necessary first to settle the limits and conditions of inquiry, the limits and conditions of the inquiring faculties. Thus Consciousness became the basis of Philosophy; to make that basis broad and firm, to ascertain its nature and capacity, became the first object of speculation.

THIRD EPOCH.

PHILOSOPHY REDUCED TO A QUESTION OF PSYCHOLOGY.

CHAPTER I.

HOBBES.

PERHAPS no writer except Spinoza has ever been so uniformly depreciated as Hobbes. From his first appearance until the present day he has been a bye-word of contempt with the majority of writers; and even by those who have been liberal enough to acknowledge merit in an adversary, he has been treated as a dangerous and shallow thinker. The first person who saw his importance as a political thinker, and had the courage to proclaim it, was, we believe, James Mill. But as long as political and social theories continue to be judged of by their *supposed* consequences, so long will Hobbes be denied a fair hearing. He has roused the *odium theologicum*. It will be long ere that will be appeased.

Faults he had, unquestionably; short-comings, incomplete views; and—as all error is dangerous in proportion to its plausibility—we will say that he was guilty of dangerous errors. Let the faults be noted, but not overstrained; the short-comings and incomplete views, enlarged and corrected; the errors calmly examined and refuted. We shall be gainers by it; but by inconsiderate contempt, by vilifying, no good result can be obtained. Impartial minds will always rank Hobbes amongst the greatest writers England has produced. He is profound, and he is clear; weighty, strong, and sparkling. His style, as mere style, is in its way as fine as anything in English: it has the clearness as well as the solidity and brilliancy of crystal. Nor is the matter unworthy of the form. It is original, in the sense of having been passed through the alembic of his own brain, even when formerly the property of others. Although little of it would now appear novel, it was novel when he produced it. Haughty, dogmatic, overbearing in manner, he loved

Truth, and never hesitated to proclaim her. 'Harm I can do none,' he says, in the opening of the *Leviathan*, 'though I err no less than they (*i. e.* previous writers), for I shall leave men but as they are, in doubt and dispute; but intending not to take any principle upon *trust*, but only to put men in mind of what *they know already*, or may know by their experience, I hope to err less; and when I do, it must proceed from *too hasty concluding*, which I will endeavour as much as I can to avoid.'*

In this passage we see Locke anticipated. It proclaims that Psychology is a science of observation; that if we would understand the conditions and operations of our minds, we must patiently look inwards and see what passes there. All the reasoning and subtle disputation in the world will not advance us one step, unless we first get a firm basis on fact. 'Man,' he says elsewhere, with his usual causticity, 'has the exclusive privilege of forming general theorems. But this privilege is alloyed by another, that is, by the privilege of absurdity, to which no living creature is subject but man only. *And of men those are of all most subject to it, that profess Philosophy.*' And the cause of this large endowment of the privilege to Philosophers we may read in another passage, where he attributes the difficulty men have in receiving Truth, to their minds being prepossessed by false opinions—they having *prejudged* the question. The passage is as follows:—'When men have once acquiesced in untrue opinions, and registered them as authenticated records in their minds, it is no less impossible to speak intelligibly to such men than to write legibly on a paper already scribbled over.'

Hobbes's position in the History of Philosophy is easily assigned. On the question of the origin of our knowledge he takes a decided stand upon Experience: he is the precursor of modern Materialism:—

'Concerning the thoughts of man I will consider them first singly, and afterwards in a train or dependence upon one another. Singly they are every one a *representation* or *appearance* of some quality or other accident of a body without us, which is commonly called an *object*. Which object worketh on the eyes, ears, and other parts of a man's body; and by diversity of working, produceth diversity of appearances.

'The original of them all is that which we call *Sense*, for there is no conception in a man's mind which hath not at first, totally or

* *Works*, edited by Sir W. Molesworth, iv. 1.

by parts, been begotten upon the organs of sense. The rest are derived from that original.'*

We have here stated, in the broadest manner, the principle of Materialism. It is in direct antagonism to the doctrine of Descartes that there are innate ideas; in direct antagonism to the old doctrine of the spirituality of Mind. Theoretically this principle may be insignificant; historically it is important.

Hobbes's language is plain enough, but we will still further quote from him, to obviate any doubt as to his meaning.

'According to the two principal parts of man, I divide his faculties into two sorts—faculties of the *body*, and faculties of the *mind*.

'Since the minute and distinct anatomy of the powers of the body is nothing necessary to the present purpose, I will only sum them up in these three heads,—power *nutritive*, power *generative*, and power *motive*.

'Of the powers of the mind there be two sorts—*cognitive*, *imaginative*, or *conceptive* and *motive*.

'For the understanding of what I mean by the power *cognitive*, we must remember and acknowledge that there be in our minds continually certain *images* or conceptions of the things without us. This *imagery* and *representation* of the qualities of the things without, is that which we call our *conception*, *imagination*, *ideas*, *notice*, or knowledge of them; and the *faculty*, or power by which we are capable of such knowledge, is that I here call *cognitive power*, or *conceptive*, the power of knowing or conceiving.'

The mind is thus wholly constructed out of sense. Nor must we be deceived by the words faculty and power, as if they meant any activity of the mind—as if they implied that the mind *co-operated* with sense. The last sentence of the foregoing passage is sufficient to clear up this point. He elsewhere says:—'All the qualities called *sensible* are, in the object that causeth them, but so many several *motions* of the matter by which it presseth on our organs diversely. *Neither in us that are pressed are they anything else but divers motions; for motion produceth nothing but motion.*'

Hobbes, therefore, and not Locke, is the precursor of that school of Psychology which flourished in the eighteenth century (principally in France), and which made every operation of the mind pro-

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* *Leviathan*, ch. i. In the following exposition we shall sometimes cite from the *Leviathan* and sometimes from the *Human Nature*. This general reference will enable us to dispense with iterated foot-notes.

ceed out of *transformed sensations;* which ended, logically enough, in saying that to *think* is to *feel—penser c'est sentir.*

It is to Hobbes that the merit is due of a discovery which, though so familiar to us now as to appear self-evident, was yet in truth a most important discovery, and was adopted by Descartes in his *Meditations**—it is that our sensations do not correspond with any external qualities; that what are called sensible qualities are nothing but modifications of the sentient being:—

'Because the image in vision, consisting of colour and shape, is the knowledge we have of the qualities of the object of that sense; it is no hard matter for a man to fall into this opinion that the same colour and shape are the very qualities themselves; and for the same cause that sound and noise are the qualities of the bell or of the air. And this opinion hath been so long received that the contrary must needs appear a great paradox; and yet the introduction of *species visible* and *intelligible* (which is necessary for the maintenance of that opinion) passing to and fro from the object is worse than any paradox, as being a plain impossibility. I shall therefore endeavour to make plain these points:

'That the subject wherein colour and image are inherent, is not the object or thing seen.

'That there is nothing without us (really) which we call an image or colour.

'That the said image or colour is but an apparition unto us of *the motion, agitation, or alteration which the object worketh in the brain,* or spirits, or some internal substance of the head.

'That as in vision, so also in conceptions that arise from the other senses, the subject of their inference is not the object, but the sentient.'

This important principle, which Carneades among the ancients alone seems to have suspected, Hobbes has very clearly and conclusively illustrated.

Sense furnishes us with conceptions; but as there are other operations of the mind besides the conceptive, it remains to be seen how sense can also be the original of them.

And first, of *Imagination.* Mr. Hallam has noticed the acuteness and originality which often characterize Hobbes's remarks;

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* Descartes may possibly have discovered it for himself; but the priority of publication is at any rate due to Hobbes—a fact first noticed, we believe, by Mr. Hallam: *Literature of Europe,* iii. 271.

and he instances the opening of the chapter on Imagination in the *Leviathan*. It is worth quoting:—'That when a thing lies still, unless somewhat else stir it, it will lie still for ever, is a truth no one doubts of. But that when a thing is in motion it will eternally be in motion, unless somewhat else stay it, though the reason be the same, namely that nothing can change itself, is not so easily assented to. For men measure not only other men but all other things by themselves; and, because they find themselves subject after motion to pain and lassitude, think everything else grows weary of motion and seeks repose of its own accord; little considering whether it be not some other motion wherein that desire of rest, they find in themselves, consisteth.' Imagination Hobbes defines as a 'conception remaining and by little and little decaying from and after the act of sense.' . . . 'Imagination, therefore, is but *decaying sense*.' The reader must not here understand by imagination anything more than the retaining of an *image* of the object, after the object is removed. It is the term used by Hobbes to express what James Mill happily called *Ideation*. Sense, Sensation; ideas, Ideation. Hobbes says, sense, Sensation; images, Imagination.

The materialism of Hobbes's theory does not consist merely in his language (as is the case with some philosophers; Locke, for instance); it lies at the very root of the theory. Thus, he says, we have sensations and we have images—ideas. Whence those images? 'When a body is once in motion it moveth, unless something hinder it, eternally; and whatsoever hindereth it, cannot in an instant, but in time and by degrees, quite extinguish it; and as we see in the water, though the wind cease, the waves give not over rolling for a long time after: so also it happeneth in that *motion* which is made in the internal parts of man; then, when he sees, dreams, etc. For after the object is removed, or the eye shut, we still retain an image of the thing seen, though more obscure than when we see it. . . . The decay of sense in men waking is not the decay of the motion made in sense, but an obscuring of it, in such manner as the light of the sun obscureth the light of the stars; which stars do no less exercise their virtue, by which they are visible, in the day than in the night. But because amongst many strokes which our eyes, ears, and other organs receive from external bodies, the predominant only is sensible; therefore the light of the sun being predominant, we are not affected with the action of the stars.' This illustration is very happy; but it only serves to bring

out into stronger relief the materialism of the theory. He has told us what Imagination is; let us now learn what is Memory. 'This decaying sense, when we would express the thing itself, I mean *fancy* itself, we call *imagination*, as I have said before; but when we would express the decay, and signify that the sense is fading, old, and past, it is called *memory*. So that imagination and memory are but one thing, which for divers considerations hath divers names.' Mr. Hallam objects to this, and says that it is very evident that imagination and memory are distinguished by something more than their names. Truly, by us; but not by Hobbes: he evidently uses the word imagination in a more generical sense than we use it: he means by it Ideation. Thus he calls dreams 'the imagination of them that sleep.' It is that state of the mind which remains when the objects which agitated it by sensations are removed: the mind is then not so agitated, but neither is it calm; and he compares that state to the gentle rolling of the waves after the wind hath ceased.

Let this be distinctly borne in mind: Hobbes sees nothing in the intellect but what was previously in the sense. Sensations, and the traces which they leave (*i. e.* images), form the simple elements of all knowledge; the various commixtures of these elements form the various intellectual faculties. We may now open at the third chapter of the *Leviathan*. In it he propounded, as something quite simple and obvious, the very important law of association of ideas.* He states it with great clearness and thorough mastery, though he evidently was quite unaware of its extensive application.

'When a man thinketh,' he says, 'on anything whatsoever, his next thought after is not altogether so casual as it seems to be. Not every thought to every thought succeeds indifferently. But as we have no imagination whereof we have not formerly had sense in whole or in parts, so we have no transition from one imagination to another whereof we never had the like before in our senses. The reason whereof is this: all fancies (*i. e.* images) are *motions within us, relicts of those made in sense;* and those motions that immediately succeed one another in the sense continue also together after the sense; insomuch as the former coming again to take place and be predominant, the latter followeth by coherence of the matter

* See Sir W. Hamilton's Dissertation affixed to *Reid's Works*, p. 898, for a history of this law of association.

moved, in such manner as water upon a plain table is drawn which way any one part of it is guided by the finger.'

The materialism here is distinct enough. He continues, in excellent style:—'This train of thoughts, or mental discourse, is of two sorts. The first is unguided, without design, and inconstant, wherein there is no passionate thought to govern and direct those that follow to itself, as the end and scope of some desire or other passion; in which case the thoughts are said to wander, and seem impertinent one to another as in a dream. Such are commonly the thoughts of men that are not only without company, but also without care of anything; though even then their thoughts are as busy as at other times, but without harmony; as the sound which a lute out of tune would yield to any man; or in tune, to one that could not play. And yet in this wild ranging of the mind, a man may ofttimes perceive the way of it, and the dependence of one thought upon another. For in a discourse of our present civil war, what would seem more impertinent than to ask, as one did, what was the value of a Roman penny? Yet the coherence to me was manifest enough. For the thought of the war introduced the thought of delivering up the King to his enemies; the thought of that brought in the thought of the delivering up of Christ; and that again the thought of the thirty pence, which was the price of that treason; and thence easily followed that malicious question, and all this in a moment of time; for thought is quick.'

'For thought is quick.' This is the simple pregnant comment, justly deemed sufficient. It is no purpose of this history to dwell upon literary merits; 'but the style,' as Buffon says, 'is the man,'* and occasionally we are forced to notice it. The plain direct remark with which Hobbes concludes the above passage would, in the hands of many moderns, have run somewhat thus:—'How wonderful is thought! how mighty! how mysterious! In its lightning

* I leave this passage as it originally stood, for the sake of correcting a universal error. I have since detected it to be an error by the simple process of reading Buffon's actual words, which some French writer misquoted from memory, and which thousands have repeated without misgiving, although the phrase is an absurdity. The phrase occurs in Buffon's *Discours de Réception à l'Académie*, where speaking of style as that alone capable of conferring immortality on works, because the matter was prepared by preceding ages, and must soon become common property, whereas style remains a part of the man himself; he adds, '*Ces choses sont hors de l'homme; le style est de l'homme même.*' There is immense difference between saying *le style c'est l'homme*, and *le style est de l'homme.*

speed it traverses all space, and makes the past present!' Hobbes, with a few simple direct words, produces a greater impression than would all the swelling pomp of a passage bristling with notes of exclamation. This is the secret of his style. It is also the characteristic of his speculations. Whatever faults they may have, they have no vagueness, no pretended profundity. As much of the truth as he has clearly seen he clearly exhibits: what he has not seen he does not pretend to see.

One important deduction from his principles he has drawn: 'Whatsoever we imagine is *finite*. Therefore there is no idea, no conception of anything we call *infinite*. No man can have in his mind an image of infinite magnitude, nor conceive infinite swiftness, infinite time, or infinite power. When we say that anything is infinite, we signify only that we are not able to conceive the ends and bounds of the thing named, having no conception of the thing, but of our own inability. And therefore the name of God is used not to make us conceive him, for he is incomprehensible, and his greatness and power are inconceivable, but that we may honour him. Also because whatsoever we conceive has been perceived first by sense, either all at once or by parts, *a man can have no thought representing anything not subject to Sense.*'

This is frank, but is it true? On Hobbes's principles it is irresistible. His error lies in assuming that all our *thoughts* must be *images*. So far is this from being true, that not even all our *sensations* are capable of forming images. What images are given by the sensations of heat or cold, of music, or of taste?

Every man's consciousness will assure him that thoughts are not always images. It will also assure him that he has the idea, notion, conception, figment (or whatever name he may give the thought) of Infinity. If he attempts to form an image of it, that image will of course be finite: it would not otherwise be an image. But he can think of it; he can reason of it. It is a *thought*. It is in his mind; though how it got there may be a question. The incompleteness of Hobbes's psychology lies in the inability to answer this question. If the maxim he adopts be true, *nihil est in intellectu quod non prius fuerit in sensu*, the question is insoluble; or rather the question itself is a practical refutation of the maxim.

We insist upon Hobbes's materialism, the better to prepare the reader for a correct appreciation of Locke: one of the most misrepresented of plain writers. Hobbes, in the sixth chapter of his *Human Nature*, has very carefully defined what he means by know-

ledge. 'There is a story somewhere,' he says, 'of one that pretends to have been miraculously cured of blindness, wherewith he was born, by St. Alban or other saints, at the town of St. Alban's; and that the Duke of Gloucester being there, to be satisfied of the truth of the miracle, asked the man, What colour is this? who, by answering it was green, discovered himself, and was punished for a counterfeit: for though by his sight newly received he might distinguish between green and red and all other colours, as well as any that should interrogate him, yet he could not possibly know at first sight which of them was called green, or red, or by any other name.

'By this we may understand there be *two kinds* of knowledge, whereof the one is nothing else but *sense*, or knowledge *original*, and *remembrance* of the same; the other is called *science*, or knowledge of the *truth of propositions*, and how things are called, and is derived from *understanding*. Both of these sorts are but *experience*; the former being the experience of the effects of things that work upon us from *without*; and the latter experience men have from the proper use of *names* in language: and all experience being, as I have said, but remembrance, all knowledge is remembrance.'

The only ambiguity possible in the above passage is that which might arise from the use of the word *understanding*. This he elsewhere defines as follows:—

'When a man upon the hearing of any speech hath those thoughts which the words of that speech in their connection were ordained and constituted to signify, then he is said to understand it; *understanding* being nothing else but conception formed by speech.'

We must content ourselves with merely alluding to his admirable observations on language, and with quoting, for the hundredth time, his weighty aphorism, 'Words are wise men's counters; they do but reckon by them; but they are the money of fools.'

No attempt is here made to do full justice to Hobbes; no notice can be taken of the speculations which made him famous. Our object has been fulfilled if we have made clear to the reader the position Hobbes occupies in modern psychological speculation.

CHAPTER II.

LOCKE.

§ I. Life of Locke.

JOHN LOCKE, one of the wisest of Englishmen, was born at Urington in Somersetshire, on the 29th of August, 1632. Little is known of his family, except that his father had served in the Parliamentary wars: a fact not without significance in connection with the steady love of liberty manifested by the son.

His education began at Westminster, where he stayed till he was nineteen or twenty. He was then sent to Oxford. That University was distinguished then, as it has ever been, by its attachment to whatever is old: the Past is its model; the Past has its affection. That there is much good in this veneration for the Past, few will gainsay. Nevertheless, a University which piqued itself on being behind the age, was scarcely the fit place for an original thinker. Locke was ill at ease there. The Philosophy upheld there was Scholasticism. On such food a mind like his could not nourish itself. Like his great predecessor Bacon, he imbibed a profound contempt for the University studies, and in after-life regretted that so much of his time should have been wasted on such profitless pursuits. So deeply convinced was he of the vicious method of college education, that he ran into the other extreme, and thought self-education the best. There is a mixture of truth and error in this notion. It is true that all great men have been mainly self-taught; all that is most valuable a man must learn for himself, must work out for himself. The error of Locke's position is the assumption that all men *will* educate themselves if left to themselves. The fact is, the majority have to be educated by force. For those who, if left to themselves, would never educate themselves, colleges and schools are indispensable.

Locke's notion of an educated man is very characteristic of him. Writing to Lord Peterborough, he says, 'Your Lordship would have your son's tutor a thorough scholar, and I think it not much matter whether he be any scholar or no: if he but understand Latin well

and have a general scheme of the sciences, I think that enough. But I would have him well-bred and well-tempered.'

Disgusted with the disputes which usurped the title of Philosophy, Locke principally devoted himself to Medicine while at Oxford. His proficiency is attested by two very different persons, and in two very different ways. Dr. Sydenham, in the Dedication of his *Observations on the History and Cure of Acute Diseases*, boasts of the approbation bestowed on his Method by Mr. John Locke, 'who examined it to the bottom; and who, if we consider his genius and penetrating and exact judgment, has scarce any superior, and few equals now living.' The second testimony is that afforded by Lord Shaftesbury, when Locke first met him. The Earl was suffering from an abscess in the chest. No one could discover the nature of his disorder. Locke at once divined it. The Earl followed his advice, submitted to an operation, and was saved. A close intimacy sprang up between them. Locke accompanied him to London, and resided principally in his house.

His attention was thus turned to politics. His visits to Holland delighted him. 'The blessings which the people there enjoyed under a government peculiarly favourable to civil and religious liberty, amply compensated, in his view, for what their uninviting territory wanted in scenery and climate.'* He also visited France and Germany, making the acquaintance of several distinguished men.

In 1670 he planned his *Essay concerning Human Understanding*. This he did not complete till 1687. In 1675 the delicate state of his health obliged him to travel, and he repaired to the south of France, where he met Lord Pembroke. To him the *Essay* is dedicated. He returned in 1679, and resumed his studies at Oxford. But his friendship for Shaftesbury, and the liberal opinions he was known to hold, drew upon him the displeasure of the Court. He was deprived of his studentship by a very arbitrary act.† Nor did persecution stop there. He was soon forced to quit England, and find refuge at the Hague. There also the anger of the King pursued him, and he was obliged to retreat further into Holland. It was there he published his celebrated *Letter on Toleration*.

He did not return to England till after the Revolution. Then there was security and welcome. He was pressed to accept a high

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* Dugald Stewart.

† See Macaulay, *History of England*, i. 545–6.

diplomatic office in Germany, but the state of his health prevented him. In 1690 the first edition of his *Essay* appeared. He had indeed already (1688) published an abridgment of it in Leclerc's *Bibliothèque Universelle*. The success of this *Essay* was immense; and Warburton's assertion to the contrary falls to the ground on the mere statement of the number of editions which the work rapidly went through. Six editions within fourteen years,* and in times when books sold more slowly than they sell now, is evidence enough.

The publication of his *Essay* roused great opposition. He soon got involved in the discussions with Stillingfleet, Bishop of Worcester. He was soon after engaged in the political discussions of the day, and published his *Treatise on Government*. It was about this time that he became acquainted with Sir Isaac Newton; and a portion of their very interesting correspondence has been given by Lord King in his *Life of Locke*.

Locke's health, though always delicate, had not been disturbed by any imprudences, so that he reached the age of seventy-two—a good ripe age for one who had studied and thought. He expired in the arms of his friend, Lady Masham, on the 28th of October, 1704.

§ II. On the Spirit of Locke's Writings.

It has for many years been the fashion to decry Locke. Indirect sneers at his 'superficiality' abound in the writings of those who, because their thought is so muddy that they cannot see its shallow bottom, fancy they are profound. Locke's 'materialism' is also a favourite subject of condolence with these writers; and they assert that his principles 'lead to atheism.' Lead *whom?*

Another mode of undervaluing Locke is to assert that he only borrowed and popularized the ideas originated by Hobbes. The late Mr. Hazlitt—an acute thinker, and a metaphysician, but a wilful reckless writer—deliberately asserted that Locke owed everything to Hobbes. Dr. Whewell repeats the charge, though in a

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* The writer of the article *Locke*, in the *Ency. Brit.*, says that the fourth edition appeared in 1700. Victor Cousin repeats the statement, and adds that a fifth edition was preparing when death overtook the author; this fifth edition appearing in 1705. We know not on what authority these writers speak; but that they are in error may be seen by turning to Locke's *Epistle to the Reader*, the last paragraph of which announces that the edition then issued by Locke himself is the sixth.

more qualified manner. He says, 'Hobbes had already promulgated the main doctrines, which Locke afterwards urged, on the subject of the origin and nature of our knowledge.'

Again, 'Locke owed his authority mainly to the intellectual circumstances of the time. Although a writer of great merit, he by no means possesses such metaphysical acuteness, or such philosophical largeness of view, or such a charm of writing, as to give him the high place he has held in the literature of Europe.'

That Locke did not borrow his ideas from Hobbes will be very apparent in our exposition of Locke; but meanwhile we may quote the testimony of Sir James Mackintosh, one of the best read of our philosophers, and one intimately acquainted with both these thinkers:—

'Locke and Hobbes agree chiefly on those points in which, except the Cartesians, all the speculators of their age were agreed. They differ on the most momentous questions—the sources of knowledge, the power of abstraction, the nature of the will; on the two last of which subjects, Locke, by his very failures themselves, evinces a strong repugnance to the doctrine of Hobbes. They differ not only in their premisses and many of their conclusions, but in their manner of philosophizing itself. Locke had no prejudice which could lead him to imbibe doctrines from the enemy of liberty and religion. His style, with all its faults, is that of a man who thinks for himself; and an original style is not usually the vehicle of borrowed opinions.'*

To this passage we will add another from a still more distinguished judge:—

'Few among the great names in philosophy have met with a harder measure of justice from the present generation than Locke, the unquestioned founder of the analytic philosophy of mind, but whose doctrines were first caricatured, then, when the reaction arrived, cast off by the prevailing school even with contumely, and who is now regarded by one of the conflicting parties in philosophy as an apostle of heresy and sophistry; while among those who still adhere to the standard which he raised, there has been a disposition in later times to sacrifice his reputation in favour of Hobbes—a great writer and a great thinker for his time, but inferior to Locke not only in sober judgment, but even in profundity and original genius. Locke, the most candid of philosophers, and one whose

* *Edinburgh Review* for October, 1821, p. 242.

speculations bear on every subject the strongest mark of having been wrought out from the materials of his own mind, has been mistaken for an unworthy plagiarist, while Hobbes has been extolled as having anticipated many of his leading doctrines. He did not anticipate many of them, and the present is an instance in what manner it was generally done. [The writer is speaking of Locke's refutation of *Essences*.] They both rejected the scholastic doctrine of Essences, but Locke understood and explained what these supposed essences were. Hobbes, instead of explaining the distinction between essential and accidental properties, and between essential and accidental propositions, jumped over it, and gave a definition which suits, at most, only essential propositions, and scarcely those, as the definition of Proposition in general.'*

Dugald Stewart indeed says 'that it must appear evident Locke had diligently studied the writings of Hobbes;' but Sir J. Mackintosh, as quoted above, has explained why Locke appears to have studied Hobbes; and Stewart is far from implying that Locke therefore gained his principal ideas from Hobbes. Indeed he has an admirable note in which he points out how completely Locke's own was the important principle of *Reflection*. 'This was not merely a step *beyond* Hobbes, but the correction of an error which lies at the very root of Hobbes's system.'†

That Locke never read Hobbes may seem incredible, but is, we are convinced, the truth. It is one among many examples of how few were the books he had read. He never alludes to Hobbes in any way that can be interpreted into having read him. Twice only, we believe, does he allude to him, and then so distantly, and with such impropriety, as to be almost convincing with respect to his ignorance. The first time is in his *Reply to the Bishop of Worcester*, in which he absurdly classes Hobbes and Spinoza together. He says, 'I am not so well read in Hobbes and Spinoza as to be able to say what were their opinions on this matter, but possibly there be those who will think your Lordship's authority of more use than *those justly-decried writers*.' The form of expression, 'I am not so well read,' etc., is obviously equivalent to—I have never read those justly-decried writers. His second allusion is simply this:—'A Hobbist would probably say.' We cannot at present lay our hands on the passage, but it refers to some moral question.

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* Mill's *System of Logic*, i. 150.

† *Dissertation on the Progress of Metaph. Philosophy*, p. 235 (Hamilton's ed.). The note is very long and curious.

The above is only negative evidence. Something like positive evidence however is the fact that Hobbes's doctrine of Association of Ideas—a principle as simple of apprehension as it is important—was completely unknown to Locke, who, in the fourth or fifth edition, added the chapter on Association as it now stands. Moreover, Locke's statement of the law is by no means so satisfactory as that by Hobbes: he had not so thoroughly mastered it; yet, had he read it in Hobbes, he would assuredly have improved on it. That he did not at first introduce it into his work is a strong presumption that he had not then read Hobbes, because the law is so simple and so evident, when stated, that it must produce instantaneous conviction.

It is strange that any man should have read Locke, and questioned his originality. There is scarcely a writer we could name whose works bear such an indisputable impress of his having 'raised himself above the almsbasket, and not content to live lazily on scraps of begged opinions, set his own thoughts to work to find and follow truth.' It is still more strange that any man should have read Locke and questioned his power. That patient sagacity which, above all things, distinguishes a philosopher, is more remarkable in Locke than almost any writer. He was also largely endowed with good sense; a quality, Gibbon remarks, which is rarer than genius. In these two qualities, and in his homely racy masculine style, we see the type of the English mind, when at its best. The plain directness of his manner, his earnestness without fanaticism, his hearty honest love of truth, and the depth and pertinence of his thoughts, are qualities which, though they do not dazzle the reader, yet win his love and respect. In that volume, you have the honest thoughts of a great honest Englishman. It is the product of a manly mind: clear, truthful, direct. No vague formulas—no rhetorical flights—no base flattery of base prejudices—no assumption of oracular wisdom—no word-jugglery. There are so many writers who cover their vanity with a veil of words, who seem profound because they are obscure, that a plainness like Locke's deceives the careless reader, who is led to suppose that what is there so plain must have been obvious.

Locke, though a patient, cautious thinker, was anything but a timid thinker; and it does great honour to his sagacity, that at a time when all scientific men were exclaiming against the danger of hypotheses, believing that the extravagant errors of Schoolmen and alchemists were owing to their use of hypotheses—a time when

the great Newton himself could be led into the unphilosophical boast *hypotheses non fingo,* our wise Locke should exactly appreciate them at their true value. He says,—

'Not that we may not, to explain any phenomena of nature, make use of any probable hypotheses whatsoever. Hypotheses, if they are well made, are at least great helps to memory, and often direct us to new discoveries. But we should not take them up too hastily (which the mind that would always penetrate into the causes of things, and have principles to rest on, is very apt to do) till we have very well examined particulars, and made several experiments in that thing which we would explain by our hypothesis, and see whether it will agree to them all; whether our principles will carry us quite through, and not be as inconsistent with one phenomenon of nature as they seem to accommodate and explain another; and, at least, that we take care that the name of principles deceive us not nor impose on us, by making us receive that for an unquestionable truth which is really at best but a very doubtful conjecture: such as are most (I had almost said all) of the hypotheses in natural philosophy.'

Locke did not seek to dazzle; he sought Truth, and wished all men to accompany him in the search. He would exchange his opinions with ease when he fancied that he saw their error. He readily retracted ideas which he had published in an immature form; 'thinking himself,' as he says, 'more concerned to quit and renounce any opinion of my own than oppose that of another, when truth appears against it.' He had a just and incurable suspicion of all 'great volumes swollen with ambiguous words.' He knew how much jugglery goes on with words; some of it conscious, some of it unconscious, but all pernicious. 'Vague and insignificant forms of speech and abuse of language have for so long passed for mysteries of science; and hard and misapplied words, with little or no meaning, have, by prescription, such a right to be mistaken for deep learning and height of speculation, that it will not be easy to persuade either those who speak, or those who hear them, that they are but the covers of ignorance and hindrance of true knowledge. To break in upon this sanctuary of vanity and ignorance will be, I suppose, some service to the human understanding.'

Locke had an analytical mind. He desired to understand and to explain things, not to write rhetorically about them. There were mysteries enough which he was contented to let alone; he knew that human faculties were limited, and reverentially submitted to

ignorance on all things beyond his reach. But though he bowed down before that which was essentially mysterious, he was anxious not to allow that which was essentially cognizable to be enveloped in mystery. Let that which is a mystery remain undisturbed: let that which is not necessarily a mystery be brought into the light of day. Know the limits of your understanding—*beyond* those limits it is madness to attempt to penetrate; *within* those limits it is folly to let in darkness and mystery, to be incessantly wondering and always assuming that matters cannot be so plain as they appear, and that something lying deeper courts our attention.

To minds otherwise constituted—to men who love to dwell in the vague regions of speculation, and are only at ease in an intellectual twilight—Locke is naturally a disagreeable teacher. He flatters none of their prejudices; he falls in with none of their tendencies. Mistaking obscurity for depth, they accuse him of being superficial. The owls declare the eagle is blind. They want the twilight; he

'Wantons in the smile of Jove.'

They sneer at his 'shallowness.' So frequent are the sneers and off-hand charges against him, that I, who had read him in my youth with delight, began to suspect that my admiration had been rash. The proverb says, 'Throw but mud enough, some will be sure to stick.' It was so with Locke. Reiterated depreciation had somewhat defaced his image in my mind. The time came however when, for the purposes of this history, I had to read the *Essay on Human Understanding* once more, carefully, pen in hand. The image of John Locke was again revived within me; this time in more than its former splendour. His modesty, honesty, truthfulness, and directness I had never doubted; but now the vigour and originality of his mind, the raciness of his colloquial style, the patient analysis by which he has laid open to us such vast tracts of thought, and above all, the manliness of his truly practical understanding, are so strongly impressed upon me, that I feel satisfied the best answer to his critics is to say, '*Read him.*' From communion with such a mind as his, nothing but good can result. He suggests as much as he teaches; and it has been well said, 'that we cannot speak of his *Essay* without the deepest reverence; whether we consider the era which it constitutes in philosophy, the intrinsic value (even at the present day) of its thoughts, or the noble devotion to truth, the beautiful and touching earnestness and simplicity which he not only

manifests in himself, but has the power, beyond almost any writer, of infusing into his reader.'

§ III. Locke's Method.

'It may be said that Locke created the science of Metaphysics,' says D'Alembert, 'in somewhat the same way as Newton created Physics. . . . To understand the soul, its ideas and its affections, he did not study books; they would have misdirected him; he was content to descend within himself, and after having, so to speak, contemplated himself a long while, he presented in his *Essay* the mirror in which he had seen himself. In one word, he reduced Metaphysics to that which it ought to be, viz. the experimental physics of the mind.'*

This is great praise, and from high authority, but we suspect that it can only be received with some qualification. Locke made no grand discovery which changed the face of science. He was not even the first to turn his glance inwards. Descartes and Hobbes had been before him.

Yet Locke had his Method; a Method peculiarly his own. Others before him had cast a hasty glance inwards, and dogmatized upon what they saw. He was the first to watch patiently the operations of his mind, that, watching, he might surprise the evanescent thoughts, and steal from them the secret of their combinations. He is the founder of Modern Psychology. By him the questions of Philosophy are boldly and scientifically reduced to the primary question of the limits of human understanding. By him is begun the *history* of the development and combination of our thoughts. Others had contented themselves with the thoughts as they found them; Locke sedulously inquired into the *origin* of all our thoughts.

M. Victor Cousin, who, as a rhetorician, is in constant antagonism to the clear and analytical Locke, makes it an especial grievance that Locke and his school have considered the question respecting the origin of ideas as fundamental. 'It is from Locke,' he continues, 'that has been borrowed the custom of referring to savages and children, upon whom observation is so difficult; for the one class we must trust to the reports of travellers, often prejudiced

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* 'En un mot, il réduisit la métaphysique à ce qu'elle doit être, en effet, la physique expérimentale de l'âme.'—*Discours Prélim. de l'Encyclopédie.*

and ignorant of the language of the country visited; for the other class (children), we are reduced to very equivocal signs.'*

We cannot see how Locke should avoid referring to savages and children, if he wanted to collect facts concerning the origin of ideas; it is a practice inseparable from the psychological Method. Perhaps no source of error has been more abundant than the obstinacy with which men have in all times looked upon their indissoluble associations as irresistible truths—as primary and universal truths. A little analysis—a little observation of minds removed from the influences which fostered those associations, would prove that those associations were not universal truths, but simply associations. It is because men have analyzed the mind in its cultivated condition, that they have been led to false results; had they compared their analysis with that of an uncultivated mind, they might have gained some insight. The objection against Locke's practice could only proceed from men who study psychology without previous acquaintance with physiology—which, though they do not know it, is the same as studying functions without any knowledge of the organs. Locke was the first who systematically sought in the history of the development of the mind for answers to many of the fundamental questions of psychology, and he has been blamed for this, in the same spirit as that which dictated the sneers of John Hunter's professional contemporaries, because that admirable anatomist sought in comparative anatomy for elucidation of many anatomical problems. Nowadays no well-informed student is ignorant of the fact that Comparative Physiology, and Embryology, are our surest guides in all biological questions, simply because we therein see the problems gradually removed from many of the complexities which frustrate our research in the higher and more completely developed organisms. Locke saw clearly enough that the philosophers were accustomed to consider their minds as types of the human mind; whereas their minds, being filled with false notions and warped by prejudices, could in nowise be taken as types; for even granting that the majority of their notions were *true*, yet these true notions were not portions of the furniture of universal minds. He sought for illustrations from such minds as had not been so warped.

His object was 'to inquire into the *original, certainty, and extent* of human knowledge.' He was led to this by a conversation with some friends, in which, disputes growing warm, 'after we had

* *Histoire de la Philos.* 17 leçon.

puzzled ourselves awhile, without coming any nearer a resolution of those doubts which perplexed us, it came into my thoughts that we took a *wrong course;* and that before we set ourselves upon inquiries of that nature, it was necessary to examine our own abilities, and *see what objects our understandings were or were not fitted to deal with.*'

The plan he himself laid down is as follows:—

'First, I shall inquire into the original of those ideas, notions, or whatever else you please to call them, which a man observes and is conscious to himself he has in his mind; and the ways whereby the understanding comes to be furnished with them.

'Secondly, I shall endeavour to show what knowledge the understanding hath by those ideas; and the certainty, evidence, and extent of it.

'Thirdly, I shall make some inquiry into the nature and grounds of faith or opinion; whereby I mean that assent which we give to any proposition as true, of whose truth we have yet no certain knowledge; and we shall have occasion to examine the reasons and degrees of assent.'

We may here see decisively settled the question so often raised respecting the importance of Locke's Inquiry into Innate Ideas. 'For Locke and his school,' says M. Cousin, justly, 'the study of understanding is the study of Ideas; hence the recent celebrated name of Ideology for the designation of the science of mind.' Indeed, as we have shown, the origin of Ideas was the most important of all questions; upon it rested the whole problem of Philosophy.

According to the origin of our Ideas may we assign to them their validity. If they are of human growth and development, they will necessarily partake of human limitations. As Pascal well says, 'Si l'homme commençoit par s'étudier lui-même, il verroit combien il est incapable de passer outre. Comment pourroit-il se faire qu'une partie connût le tout?'

Locke has given us a few indications of the state of opinion respecting Innate Ideas, which it is worth while collecting. 'I have been told that a short epitome of this treatise, which was printed in 1688, was condemned by some without reading, because innate ideas were denied in it, they too hastily concluding that if innate ideas were not supposed there would be little left either of the notion or proof of spirits.' Recapitulating the contents of the chapter devoted to the refutation of innate ideas, he says, 'I know not how absurd this may seem to the masters of demonstration,

and probably it *will hardly down with anybody at first hearing.*' And elsewhere: 'What censure doubting thus of innate principles may deserve from men, who will be apt to call it pulling up the old foundations of knowledge and certainty, I cannot tell; I persuade myself at least that the way I have pursued, being conformable to truth, lays those foundations surer.'

Locke's Method was purely psychological; although he had been a student of medicine, he never indulges in any physiological speculations, such as his successors, Hartley and Darwin, delighted in. Ideas, and ideas only, solicited his analysis. Dugald Stewart has remarked, that in the *Essay* there is not a single passage savouring of the anatomical theatre or of the chemical laboratory.

We have already spoken of the *positivism* of Bacon; that of Locke shall now speak for itself in his own words:—'If by this inquiry into the nature of the understanding I can discover the powers thereof, how far they reach, to what things they are in any degree proportionate, and where they fail us, I suppose it may be of use to prevail with the busy mind of man to be more cautious in meddling with the things exceeding its comprehension, to stop when it is at the utmost extent of its tether, and *sit down in a quiet ignorance of those things which upon examination are found to be beyond the reach of our capacities.* We should not then perhaps be so forward, out of an affectation of universal knowledge, to raise questions and perplex ourselves and others about things to which our understandings are not suited, and of which we cannot frame in our minds any clear or distinct perceptions, or whereof (as it has perhaps too often happened) we have not any notions at all. Men have reason to be well satisfied with what God has thought fit for them, since he has given them, as St. Peter says, *πάντα πρὸς ζωὴν καὶ εὐσέβειαν*, whatsoever is necessary for the convenience of life and the information of virtue; and has put within the reach of their discovery the comfortable provision for this life, and the way that leads to a better. How short soever their knowledge may be of a universal or perfect comprehension of whatever is, it yet secures their great concernments, that they have light enough to lead them to the knowledge of their Maker and the *sight of their own duties.* Men may find matter sufficient to busy their heads and employ their hands with variety, delight, and satisfaction, if they will not boldly quarrel with their own constitutions, and throw away the blessings their hands are filled with because they are not big enough to grasp everything.

'*We shall not have much reason to complain of the narrowness of our minds, if we will but employ them about what may be of use to us, for of that they are very capable;* and it will be an unpardonable as well as childish peevishness, if we undervalue the advantages of our knowledge, and neglect to improve it to the ends for which it was given us, because there are some things set out of reach of it. It will be no excuse to an idle and untoward servant who would not attend his business by candle-light, to plead that he had not broad sunshine. *The candle that is set up within us shines bright enough for all our purposes.*

'When we know our own strength we shall the better know what to undertake with hopes of success;* and when we have well surveyed the powers of our own minds, and made some estimate what we may expect from them, we shall not be inclined either to sit still, and not set our thoughts on work at all, despairing of knowing anything; or, on the other side, question everything, and disclaim all knowledge because some things are not to be understood. It is of great use to the sailor to know the length of his line, though he cannot with it fathom all the depths of the ocean. It is well he knows that it is long enough to reach the bottom at such places as are necessary to direct his voyage, and caution him against running upon any shoals that they may ruin him. . . . This was that which gave the first rise to this Essay concerning the Understanding; for I thought that the first step towards satisfying several inquiries the mind of man was very apt to run into, was to take a survey of our own understandings, and to see to what things they were adapted. Till that was done I suspected we began at the wrong end, and in vain sought for satisfaction in a quiet and sure possession of truths that most concerned us, whilst we let loose our thoughts into the vast ocean of being; as if that boundless extent were the natural and undoubted possession of our understandings, wherein there is nothing exempt from its decisions, or that escaped its comprehension. Thus men extending their inquiries beyond their capacities, and letting their thoughts wander into those depths where they can find no sure footing, it is no wonder that they raise questions and multiply disputes, which, never coming to any clear resolution, are proper only to continue and increase their doubts, and to confirm them at last in perfect scepticism.'

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* 'The real cause and root of almost all the evils in science is this: that, falsely magnifying and extolling the powers of the mind, we seek not its true helps.'—*Bacon.*

The decisive manner in which Locke separates himself from the ontologists is not only historically noteworthy, but is also noticeable as giving the tone to his subsequent speculations. We have admired the Portico; let us enter the Temple.

§ IV. The Origin of our Ideas.

Hobbes had said, with Gassendi, that all our ideas are derived from sensations; *nihil est in intellectu quod non prius fuerit in sensu.* Locke, who is called a mere popularizer of Hobbes, said that there were *two* sources, not *one* source, and these two were Sensation and Reflection. Separating himself decisively from the upholders of the doctrine of innate ideas—of truths independent of experience,—he declared that all our knowledge is founded on experience, and from experience it ultimately derives itself. Separating himself no less decisively from the Gassendists, who saw no source of ideas but Sensation, he declared that although Sensation was the great source of most of our ideas, yet there was 'another fountain from which experience furnisheth the understanding with ideas;' and this source, '*though it be not sense*, as having nothing to do with external objects, yet it is very like it, and might properly enough be called *internal sense*:' this he calls Reflection.

After Dugald Stewart's ample exposure of the wide-spread error that Locke was the chief of the so-called Sensational School, we need spend little time in inquiring whether Locke did or did not teach that all knowledge was referable to sensation. The passages which contradict the vulgar error respecting Locke's doctrine are numerous and decisive. Dugald Stewart has selected several; but perhaps the one we have quoted above will be considered sufficiently explicit. Reflection, he says, 'though it be not sense,' may yet analogically be considered as an internal sense. To prevent all misconception, however, we will as a decisive example refer to his proof of the existence of God, which he sums up by saying, 'It is plain to me that we have a more certain knowledge of the existence of a God than of anything our senses have not immediately discovered to us. Nay, I presume I may say that we may more certainly know that there is a God, than that there is anything else without us.' (Book IV. ch. x.) Locke made the senses the source of all our *sensuous* knowledge; our *ideal* knowledge (so to speak) he derived from Reflection.

Historians have not accorded due praise to Locke for the impor-

tant advance he made towards a solution of the great question on the origin of knowledge. While Leibnitz has been lauded to the skies for having expressed Locke's doctrine in an epigram, Locke has not only been robbed of his due, but has been sacrificed to his rival. It is commonly said, 'Locke reduced all our knowledge to Sensation: Leibnitz came and accepted the old adage of *nihil est in intellectu quod non prius fuerit in sensu*, but he accepted it as only half the truth; and therefore added, *nisi ipse intellectus*.' Now, firstly, Locke did not accept the adage as the whole truth; he said that Reflection was a second source of ideas. Secondly, Dugald Stewart has remarked that the addition which Leibnitz made when he said there is nothing in the intellect which was not previously in the sense, *except the intellect itself*, expresses no more than the doctrine of Locke, who says, 'External objects furnish the mind with ideas of sensible qualities; and the mind furnishes the understanding with the ideas of its own operations.' Thirdly, although the phrase is epigrammatic, and thereby has had such success in the world as epigrams usually have, it will not bear scrutiny: few epigrams will. Except as a verbal jingle, how trivial is the expression—the intellect *in* the intellect! Suppose a man to say, 'I have no money in my purse, except my purse itself,' he would scarcely be less absurd. For when the Schoolmen said, 'nothing was in the intellect which was not previously in the sense,' they did not mean that the intellect was the same as the sense; they meant that the intellect was furnished with no ideas, notions, or conceptions, which had not been furnished them by sense; they meant that the senses were the inlets to the soul.

Dr. Whewell approves of the epigram; and alluding to Mr. Sharpe's objection to it, viz. that we cannot say the intellect is *in* the intellect, he says, 'This remark is obviously frivolous; for the faculties of the understanding (which are what the argument against the Sensational School requires us to reserve) may be said to be in the understanding with as much justice as we may assert that there are in it the impressions derived from sense.' We submit that the 'faculties' of the understanding are not '*all* that must be reserved for the argument against the Sensational School' (if the Lockists be meant, and to them only did Leibnitz address himself), for the simple reason that the faculties *never* were denied.* Opponents have attributed

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* Locke often speaks of the operations of the mind as proceeding from powers intrinsical and proper to itself. He says also: 'Thus the first *capacity*

such a notion to Locke's school; no member of that school ever proposed it. The question never was—*Have we an Understanding, and has that Understanding certain Faculties?* No; the question simply was—*What is the origin of our Ideas: are they partly innate and partly acquired, or are they wholly acquired, and if so, is Sense the sole inlet?* To this plain question some replied plainly, 'Sense is the origin of all our ideas.' Locke replied, 'Sense and Reflection are the sources of all our ideas.' Leibnitz replied, 'There is nothing in the intellect which was not previously in the sense; except the intellect itself:' which latter remark is altogether *beside* the question. And yet this remark has called forth many pages of laudatory declamation; pages in which Locke is cast into the background, and charged with having overlooked the important fact that man has an intellect as well as senses. This notion, once started, continued its triumphant course. Men are for the most part like sheep, who always follow the bell-wether: what one boldly asserts, another echoes boldly; a third transmits it to a fourth, and the assertion becomes consolidated into a traditional judgment. Some one more serious, or more independent than the rest, looks into the matter; sees an error, exposes it; but tradition rolls on its unimpeded course. I do not expect to shake the traditional error respecting Locke; I was bound, however, to signalize it. Locke does *not* derive all our knowledge from sensation; Leibnitz has *not* made any addition by his too famous *nisi ipse intelleotus.**

By Sensation, Locke understands the simple operation of external objects through the senses. The mind is herein wholly passive. The senses, therefore, may be said to furnish the mind with one portion of its *materials*. By Reflection he understands that internal sense, by means of which the mind observes its own operations. This furnishes the second and last portion of the materials out of which the mind frames knowledge. 'If it shall be demanded,' he says, 'when a man begins to have any ideas, I think the true answer is, when he first has any sensation. For since there appear not to be any ideas in the mind before the senses have conveyed any in, I conceive that ideas in the understanding are coeval with

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of human intellect is, that the mind is fitted to receive the impressions made on it; either through the senses by outward objects, or *by its own operations when it reflects on them.*'—*Essay*, b. ii. c. i. § 24.

* Leibnitz himself says, when making the distinction, 'Cela s'accorde assez avec votre auteur de l'Essai, qui cherche une bonne partie des Idées dans la réflexion de l'esprit sur sa propre nature.'—*Nouveaux Essais*, ii. c. i.

sensation.' This is making a decisive stand against the upholders of innate ideas; but it is a very rude and incomplete view.

Deeply considered, not only are ideas not coeval with sensations, but sensations themselves are not coeval with the operation of external objects on our organs. Our senses have to be *educated, i. e.* to be drawn out, developed. We have to learn to see, to hear, and to touch. Light strikes on the infant retina, waves of air pulsate on the infant tympanum: but these as yet produce neither sight nor hearing: they are only the preparations for sight and hearing. Many hundred repetitions are necessary before what we call a sensation (*i. e.* a distinct feeling corresponding to that which the object will always produce upon the developed sense) can be produced. Many sensations are necessary to produce a perception: a perception is a cluster of sensations with an ideal element added. On the educated Sense objects act so as instantaneously to produce what we call their sensations; on the uneducated Sense they act only so as to produce a vague impression, which becomes more and more definite by repetition.*

Plato finely compares the soul to a book, of which the senses are the scribes.† Accepting this comparison, writing is only possible after a series of tentatives; the hand must practise, before it can steady itself sufficiently to trace letters; so also must the senses learn by repetition to trace intelligible figures on the *tabula rasa* of the mind.

Locke continues his account of the origin of all our knowledge thus: 'In time the mind comes to reflect on its own operations about the ideas got by sensation, and thereby stores itself with a new set of ideas, which I call ideas of reflection. These are the impressions which are made on our senses by outward objects that are extrinsical to the mind, and its own operations proceeding from powers intrinsical and proper to itself; which when reflected on by itself, becoming also objects of its contemplation, are, as I have said, the original of all knowledge. Thus the first capacity of the human intellect is that the mind is fitted to receive the impressions made on it; either through the senses by outward objects, or by its own operations when it reflects on them. This is the first step

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* See this growth of sensation treated in detail in Beneke's *Lehrbuch der Psychologie*. See also the chapters on Hartley and Darwin further on.

† *Philebus*, p. 192. Plato's words are not given in the text, but the sense is.

that a man makes towards the discovery of and the groundwork whereon to build all those notions which ever he shall have naturally in this world. All those sublime thoughts which tower above the clouds, and reach as high as heaven itself, take their rise and footing here: in all that good extent wherein the mind wanders, in those remote speculations it may seem to be elevated with, it stirs not one jot beyond those ideas which sense or reflection have offered for its contemplation.'

The close of this passage is an answer to the ontologists; not one however which they will accept. They deny that sensation and reflection are the only sources of materials. But we will continue to hear Locke: 'When the understanding is once stored with these simple ideas, it has the power to repeat, compare, and unite them, even to an almost infinite variety, and so can make at pleasure new complex ideas. But it is not in the power of the most exalted wit, or enlarged understanding, by any quickness or variety of thought, to invent or frame one new simple idea in the mind not taken in by the ways aforementioned.'

This is very explicit—and, we believe, very true. If true, what becomes of Philosophy?

§ V. Elements of Idealism and Scepticism in Locke.

The passage last quoted naturally leads us to consider Locke's position in the great debate carried on respecting our knowledge of things *per se*.

Can we know things as they are? Descartes and his followers suppose that we can: their criterion is the clearness and distinctness of ideas. Locke admirably said, '*Distinct* ideas of the several sorts of bodies that fall under the examination of our senses, perhaps we may have; but *adequate* ideas I suspect we have not of any one amongst them.' Our ideas, however clear, are never adequate; they are *subjective*. But Locke only went halfway towards the conception of knowledge as *purely* subjective. He did not think that all our ideas were images, *copies* of external objects; but he expressly taught that our ideas of what he calls *primary qualities*, are *resemblances* of what really exist in bodies; adding, that 'the ideas produced in us by *secondary* qualities have no resemblance of them at all. There is nothing like our ideas existing in the bodies themselves. They are, in the bodies we denominate from them, only *a power to produce those sensations in us*.'

It is remarkable that the last sentence did not lead him to the conclusion that *all* the qualities which we perceive in bodies are but the powers to produce sensations in us; and that it is we who attribute to the causes of these sensations *a form analogous to their effects*. He himself warned us 'that so we may not think (as perhaps usually is done) that they (ideas) are exactly the *images and resemblances of something inherent in the subject;* most of those of sensation being in the mind *no more the likeness of something existing without us than the names that stand for them are likenesses of our ideas,* which yet upon hearing they are apt to excite in us.' And elsewhere, 'It being no more impossible to conceive that God should annex such ideas to such motions (*i. e.* the motions of objects affecting the senses) *with which they have no similitude,* than that he should annex the idea of pain to the motion of a piece of steel dividing our flesh, with which that idea hath no resemblance.'

From these passages it will be seen how clearly Locke understood the subjective nature of one portion of our knowledge. He did not carry out the application of his principles to primary qualities, owing perhaps to inveterate association having too firmly established the contrary in his mind. Every one is willing to admit that colour, light, heat, perfume, taste, etc., are not qualities in the bodies which produce in us those effects, but simply conditions of our sensibility, when placed in certain relations with certain bodies. But few are willing to admit—indeed only philosophers (accustomed as they are to undo their constant associations) can conceive the primary qualities, viz. extension, solidity, motion, and number, to be otherwise than real qualities of bodies—*copies* of which are impressed upon us by the relation in which we stand to the bodies. And yet these qualities are no less subjective than the former. They do not belong at all to bodies, except as powers to produce in us the sensations. They are demonstrably as much the effects produced in us by objects, as the secondary qualities are; and the latter every one admits to be the *effects,* and not *copies.* Wherein lies the difference? wherein the difficulty of conceiving primary qualities not to belong to bodies? In this: the primary qualities are the *invariable* conditions of sensation. The secondary qualities are the *variable* conditions. We can have no perception of a body that is not extended, that is not solid (or the reverse), that is not simple or complex (number), that is not in motion or rest. These are *invariable* conditions. But this body is not necessarily of any particular colour, taste, scent, heat, or smoothness; it may be co-

lourless, tasteless, scentless. These secondary qualities are all *variable*. Consequently the one set, *being invariable, have occasioned indissoluble associations* in our minds, so that it is not only impossible for us to imagine a body, without at the same time imagining it as endowed with these primary qualities; but also we are irresistibly led to believe that the bodies we perceive do certainly possess those qualities quite independently of us. Hence it has been said that the Creator himself could not make a body without extension: for such a body is impossible. The phrase should be, 'such a body it is impossible for *us to conceive*.' But our indissoluble associations are no standards of reality.

That *we* cannot conceive body without extension is true; but that, because we cannot conceive it, the contrary must be false, is preposterous. All our assertion in this matter can amount to is, that knowledge must be subordinate to the conditions of our nature. These conditions are not conditions of things, but of our organizations. If we had been so constituted as that all bodies should affect us with a sensible degree of warmth, we should have been irresistibly led to conclude that warmth was a quality inherent in body; but because warmth varies with different bodies and at different times, there is no indissoluble association formed. And so of the rest.

To return to Locke: he has very well stated the nature of our knowledge of external things, though he excepts primary qualities. 'It is evident,' he says, 'that the bulk, figure, and motion of several bodies about us, produce in us several sensations, as of colours, sounds, tastes, smells, pleasure and pain, etc. These mechanical affections of bodies *having no affinity at all with those ideas they produce in us* (there being no conceivable connection between any impulse of any sort of body, and any perception of a colour or smell which we find in our minds) *we can have no distinct knowledge of such operations beyond our experience;* and can reason about them no otherwise than as the effects produced by an infinitely wise Agent, which perfectly surpass our comprehensions.'

He shortly after says, 'The things that, as far as our observation reaches, we constantly find to proceed regularly, we may conclude do act by a law set them; but yet by a law that we know not: whereby, though causes work steadily, and effects constantly flow from them, *yet their connections and dependencies being not discoverable in our ideas, we can have but an experimental knowledge of them.*' Here we have Hume's doctrine of Causation anticipated.

To prove the subjective nature of our knowledge is but one step towards the great question. The second step, which it is vulgarly supposed was only taken by Berkeley and Hume, was also taken by Locke. Hear him. 'Since the mind in all its thoughts and reasonings hath no other immediate object but its own ideas, which it alone does or can contemplate, it is evident that our knowledge is only conversant about them. Knowledge, then, seems to me nothing but the perception of the connection and agreement, or disagreement and repugnancy, of any one of our ideas.'

This is the great stronghold of Idealism and Scepticism. Locke foresaw the use which would be made of it; and he stated the problem with remarkable precision. 'It is evident that the mind knows not things immediately, but only by the intervention of ideas it has of them. Our knowledge therefore is real, only so far as there is a conformity between our ideas and the reality of things. '*But what shall be here the criterion? How shall the mind, when it perceives nothing but its own ideas, know that they agree with the things themselves?*'

Thus has he stated the problem which was solved by Idealism on the one hand, and by Scepticism on the other. Let us see how he will solve it. There are two sorts of ideas, he says, the simple and the complex; or, to use more modern language, perceptions and conceptions. The first 'must necessarily be the product of things operating on the mind in a natural way, and producing those perceptions which by the wisdom and will of our Maker they are ordained and adapted to. From whence it follows that simple ideas are not fictions of our fancies, but the natural and regular productions of things without us *really operating upon us;* and so carry with them *all the conformity which is intended,* or which *our state requires:* for they represent *things to us under those appearances which they are fitted to produce in us.*'

This leaves the question of Idealism unanswered, though it cuts the Gordian knot of Scepticism. It is a plain and explicit avowal of the subjectivity of our knowledge; of the impossibility of our ever transcending the sphere of our consciousness and penetrating into the essences of things. Complex ideas being made out of simple ideas, we need not examine their pretensions to infallibility. All human certainty is therefore only a relative certainty. Ideas may be true for us, without being at all true when considered absolutely. Such is Locke's position. He stands upon a ledge of rock between two yawning abysses. He will stand there, and proceed no further.

Why should he move when he knows that a single step will precipitate him into some fathomless gulf? No; he is content with his ledge of rock. 'The notice we have by our senses,' he says, 'of the existence of things without us, though it be not altogether so certain as our intuitive knowledge or the deductions of our reason, employed about the clear, abstract ideas of our own minds; yet it is an assurance that deserves the name of knowledge. If we persuade ourselves that our faculties act and inform us right concerning the existence of those objects that affect them, it cannot pass for an ill-grounded confidence; for I think nobody can in earnest be so sceptical as to be uncertain of the existence of those which he sees and feels. At least he that can doubt so far (whatever he may have with his own thoughts) will never have any controversy with me, since he can never be sure I say anything contrary to his own opinions. As to myself, I think God has given me assurance enough as to the existence of things without me; since by their different application I can produce in myself both pleasure and pain, which is one great concernment of my present state. We cannot act by anything but our faculties; nor talk of knowledge but by the help of those faculties which are fitted to apprehend even what knowledge is.'

Again, anticipating the objection that 'all we see, hear, feel and taste, think and do, during our whole being, is but the series and deluding appearances of a long dream, and therefore our knowledge of anything be questioned; I must desire him to consider that if all be a dream, then he doth but dream that makes the question; and so it is not much matter that a waking man should answer him. But yet if he pleases, he may dream that I make him this answer, That the *certainty* of things existing in *in rerum naturâ*, when we have the testimony of our senses for it, is not only *as great as our frame can attain to, but as our condition needs.*' This leaves Idealism unanswered; but it pronounces Scepticism to be frivolous: 'for our faculties,' he continues, 'being *not suited to the full extent of being*, nor to a perfect, clear, comprehensive knowledge of things free from all doubt and scruple, but to the preservation of us, in whom they are, and accommodated to the use of life; they serve our purpose well enough, if they will but give us certain notice of those things which are convenient or inconvenient to us.'

That this is very good common-sense every one will admit. But it is no *answer* to Scepticism. Hume, as we shall see hereafter, proclaimed the very same opinions but the difference between

him and Locke was, that he knew such opinions had no influence whatever upon the *philosophical* question, but simply upon the practical affairs of life; whereas Locke, contenting himself with the practical, disdained to answer the philosophical question.*

We may sum up the contents of this Section by saying that Locke distinctly enough foresaw the Idealistic and Sceptical arguments which might be drawn from his principles. He did not draw them, because he thought them frivolous. Aware that all human certitude could only be relative certitude—that human knowledge could never embrace the nature of things, but only the nature of their effects on us—he was content with that amount of truth, and 'sat down in quiet ignorance of those things which are beyond the reach of our capacities.' The grand aim of the *Essay* was to prove that all knowledge is founded on experience. That proved, he was aware that Experience never could be other than relative—it could only be *our* Experience of things; and our Experience could be no *absolute* standard; it could only be a standard for us.

§ VI. Locke's Critics.

We cannot leave the great Englishman without adverting to the tone adopted by many of his critics. This tone has been anything but considerate. The sincerest and least dogmatic of thinkers has for the most part met with insincere and shallow criticism.

That men should misrepresent Spinoza, Hobbes, or Hume, is intelligible enough; men are frightened, and in their terror exaggerate and distort what they see. That they should misrepresent Kant, Fichte, or Hegel, is also intelligible; the remoteness of the speculations, and the difficulty of the language, are sufficient excuses. But that they should misrepresent Locke is wholly inexcusable. He was neither an audacious speculator, nor a cloudy writer. His fault was that he spoke plainly and honestly. He sought the truth; he did not wish to mystify any one. He endeavoured to explain the Chemistry of the Mind (if the metaphor be permissible), renouncing the vague futile dreams of Alchemy. All those men who still seek to penetrate impenetrable mysteries, and refuse to acknowledge the limits of man's intelligence, treat Locke with the same

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* Dr. Reid conjectures that 'Locke had a glimpse of the system which Berkeley afterwards advanced, though he thought proper to suppress it within his own breast.' Not to suppress, but to disdain it.

superb disdain as the ambitious alchemists treated the early chemists. The tone in which most modern Frenchmen and Germans speak of Locke is painful; the tone in which many Englishmen speak of him is disgraceful. To point out any error is honourable; but to accuse him of errors which are not to be found in his work, to interpret his language according to your views, and then accuse him of inconsistency and superficiality; to speak of him with superciliousness, as if he were some respectable but short-sighted gentleman dabbling with philosophy, and not one of the great benefactors of mankind, deserves the severest reprobation.*

There is no excuse for not understanding Locke. If his language be occasionally loose and wavering, his meaning is always to be gathered from the context. He had not the lucidity of Descartes or Hobbes; but he was most anxious to make himself intelligible, and to this end he varied his expressions, and stated his meaning in a variety of forms. He must not be taken literally. No single passage is to be relied on, unless it be also borne out by the whole tenour of his speculations. Any person merely 'dipping into' the Essay, will find passages which seem very contradictory; any person carefully reading it through will find all clear and coherent.

The most considerable of Locke's modern critics is Victor Cousin. He has undertaken an examination and refutation of all Locke's important positions. The eminence of his name and the popular style of his lectures have given great importance to his criticism; but if we are to speak out our opinion frankly, we must characterize this criticism as very unfair, and extremely shallow. We cannot here examine his examination: a volume would not suffice to expose all his errors. Let one example of his unfairness, and one of his shallowness, suffice.

Speaking of the principle of reflection, he says: 'In the first place, remark that Locke here evidently confounds reflection with consciousness. Reflection, strictly speaking, is doubtless a faculty analogous to consciousness, but distinct from it, and which more particularly belongs to philosophers, whereas consciousness belongs to every man.'

We answer, that in the first place, so far from its being evident that Locke confounds reflection with consciousness, his whole Essay proves the contrary. In the second place, M. Cousin, using the word reflection in a peculiar sense (viz. as tantamount to specula-

* On this point consult Dr. Vaughan's vigorous defence of Locke against his critics in the *Essays on History, Philosophy, etc.*

tion), forces that sense upon Locke, and thus makes the contradiction! If M. Cousin had interpreted Locke fairly, he could never have thus 'caught him on the hip.'

It is quite true that in the passage quoted by M. Cousin, the faculty of reflection is limited to the operations of the mind; but, as we said, to pin Locke down to any one passage is unfair; and his whole Essay proves, in spite of some ill-worded definitions, that by reflection he meant very much what is usually meant by it, viz. the activity of the mind in combining the materials it receives through sense, and becoming thus a source of ideas.

This leads us to the second example. M. Cousin wishing to prove, against Locke, that we have ideas from some other source beside sensation and reflection, instances the idea of space, and examines how it was possible to obtain that idea through sensation and reflection. That the idea of pure space could not have been obtained through the senses he seems to think is satisfactorily proved by proving that the idea has nothing sensuous in it; that it could not have been obtained through reflection, because it has nothing to do with the operations of our understanding, is equally evident to him. Hence, as both sources fail, he pronounces Locke's account of the origin of our knowledge 'incomplete and vicious.'

This argument, which extends to several pages, is deemed by M. Cousin triumphant. Locke indeed says that 'we get the idea of space both by our sight and touch.' Any honest inquirer would never quibble upon this—would never suppose Locke meant to say that space is a *sensation*. He would understand that Locke meant to say, 'the idea of space is an abstraction: the primary materials are obtained through our touch and sight.' Locke did not anticipate any quibbling objection, so did not guard against it; but in his explanation of our idea of substance he has given an analogous case; although his antagonists have also frequently objected that the idea of substance never could have been obtained through sense. It has been thought an irresistible argument against Locke's theory: the very fact that we have an idea of substance is supposed to be sufficient proof of some other source of knowledge than sensation and reflection. This is an example of how carelessly Locke has been read. He expressly tells us, in more places than one, that the idea of substance (and by idea he does not here mean *image*, but a *thought*) is an inference grounded upon our experience of external things. True it is that we perceive nothing but phenomena, but our minds are so constituted that we are

forced to suppose these phenomena have substances lying underneath them.

'If any one will examine himself,' he says, 'concerning his notion of pure substance in general, he will find he has no other idea of it at all, but only a supposition of he knows not what support of such qualities which are capable of producing simple ideas in us, which qualities are commonly called accidents. If any one should be asked what is the subject wherein colour or weight inheres, he would have nothing to say but the solid extended parts; and if he were demanded what is it that solidity and extension inhere in, he would not be in a much better case than the Indian who, saying that the world was supported by a great elephant, was asked what the elephant rested on, to which his answer was, A great tortoise; but being again pressed to know what gave support to the great broad-backed tortoise, replied, Something, he knew not what.'

The same course of argument will apply to space. Space is an idea suggested by *place,* which is surely one derived from the senses; but M. Cousin declaims away at a great rate, and brings forward many arguments and illustrations, all utterly trivial, to show that the idea of space could never have been a sensation. A little more attention in reading the author he attacks would have saved him all this trouble. Locke never for an instant supposed that the idea of space could have been a sensation: on the fact that it could not, he grounds his position that the idea is vague, and is a mere 'supposition.'

The German critics we may pass over in silence. The whole tenour of their speculations unfits them for judging Locke. But let us hear an Englishman, who is also an historian:—'We need not spend much time in pointing out the inconsistencies into which Locke fell,' says Dr. Whewell, 'as all must fall into inconsistencies who recognize no source of knowledge except the senses.' Let us remark, in the first place, that it is surely a questionable procedure thus to pass over so great a man as Locke, whose influence has been so general and lasting, and whose 'inconsistencies' it behoved Dr. Whewell, more than most men, to refute, inasmuch as Locke's principles refute *his* whole philosophy. Secondly, it is a misrepresentation to assert Locke's having recognized 'no source of knowledge except the senses.' On reconsideration he must admit that Locke *did* recognize another source. 'Thus he maintains,' continues Dr. Whewell, 'that our idea of space is derived from the senses of sight and touch—our idea of solidity from the touch alone. Our

notion of substance is an unknown support of unknown qualities, and is illustrated by the Indian fable of the tortoise which supports the elephant which supports the world.'

Space we have already considered in answering M. Cousin. As to solidity, if the idea be not derived from the sensation, from whence is it derived? And as to substance, we must here again notice a misrepresentation of Locke, who does not define it as 'an unknown support of unknown qualities,' but as an unknown support of *known* qualities: from our knowledge of the qualities we infer the existence of some substratum in which they inhere. We are, with respect to substance, somewhat in the condition of a blind man, who, whenever he moved in a certain direction, should receive a blow from some revolving wheel. Although unable to see the wheel, and so understand the cause of the pain he received, he would not hesitate to attribute that cause to something without him. All he could ever know, unassisted, would be the fact of his being struck when he moved in a certain direction; he could have no other knowledge of the wheel, yet he would be quite certain that there was something besides his pain, and that unknown something would stand to him in a relation somewhat similar to that in which the unknown support of known accidents of bodies stands to us. This is Locke's meaning.

'Our notion of power or cause,' continues the historian, 'is in like manner got from the senses; and yet, though these ideas are thus mere fragments of our experience, Locke does not hesitate to ascribe to them necessity and universality when they occur in propositions. Thus he maintains the necessary truth of geometrical properties; he asserts that the resistance arising from solidity is absolutely insurmountable; he conceives that nothing short of Omnipotence can annihilate a particle of matter; and he has no misgivings in arguing upon the axiom that everything must have a cause. He does not perceive that upon his own account of the origin of our knowledge, we can have no right to make any of these assertions. If our knowledge of the truths which concern the external world were wholly derived from experience, all that we could venture to say would be, that geometrical properties of figures are true *as far as we have tried them;* that we have seen *no example* of a solid body being reduced to occupy less space by pressure, or of a material substance annihilated by natural means; and that, *wherever we have examined,* we have found that every change has had a cause.'

This is only one among many instances of Dr. Whewell's want of accurate interpretation of Locke. The fallacy on which his argument rests, we shall examine at some length when we come to treat of Kant. Meanwhile let the following passage prove that he has misconceived Locke, who certainly did not hesitate to ascribe necessity and universality to certain ideas when they 'occur in propositions,' but who very clearly explained the nature of this necessity in a masterly passage: 'There is one sort of propositions concerning the existence of anything answerable to such an idea; as having the idea of an elephant, phœnix, motion, or angle, in my mind, the first and natural inquiry is, whether such a thing does anywhere exist. And this knowledge is only of particulars. No existence of anything without us, except God, can certainly be known further than our senses inform us.

'There is another sort of propositions, wherein is expressed the agreement or disagreement of our abstract ideas and their dependence on one another. *Such propositions may be universal and certain.* So, having the idea of God and of myself, of fear and obedience, I cannot but be sure that God is to be feared and obeyed by me: and this proposition will be certain concerning man in general, *if I have made an abstract idea of such species whereof I am one particular.* But yet this proposition, how certain soever, that men ought to fear and obey God, proves not to me the existence of men in the world, but *will be true of all such creatures wherever they do exist*. which certainty of such general propositions depends on the agreement or disagreement to be discovered in those abstract ideas. In the former case our knowledge is the consequence of the existence of things producing ideas in our minds by our senses; in the latter, knowledge is the consequence of the ideas (be they what they will) that are in our minds producing their general certain propositions.

'Many of these are called *æternæ veritates;* and all of them indeed are so; not from being written in the minds of all men, or that they were any of them propositions in any one's mind till he, having got the abstract ideas, joined or separated them by affirmation or negation. But wheresoever we can suppose such a creature as man is, endowed with such faculties, and thereby furnished with such ideas as we have, we must conclude he must needs, when he applies his thoughts to the consideration of his ideas, know the truth of certain propositions that will arise from the agreement or disagreement which he will perceive in his own ideas. Such propo-

sitions therefore are called eternal truths, not because they are eternal propositions actually formed and antecedent to the understanding that makes them; nor because they are imprinted on the mind from any patterns that are anywhere of them out of the mind and existed before; but because being once made about abstract ideas so as to be true, they will, whenever they can be supposed to be made again at any time by a mind having those ideas, always actually be true.'* This passage is sufficient to exonerate him from the charge of inconsistency; sufficient also, we believe, to show the error of Dr. Whewell's own conception of the necessity of certain truths.

The foregoing are samples of the style in which the great master of Psychology is spoken of by his most modern critics. Let them be sufficient warning to the reader of what he is to expect from the partisans of the reaction against Locke, and his followers; and stimulate him to the careful study of that author who 'professes no more than to lay down, candidly and freely, his own conjectures concerning a subject lying somewhat in the dark, without any other design than an unbiassed inquiry after truth.'

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* Book iv. ch. xi. §§ 13, 14.

CHAPTER III.

LEIBNITZ.

LEIBNITZ was the first and last of Locke's great critics. He had studied the *Essay on the Human Understanding*, though he could not accept its principles. His arguments have formed the staple of objection against Locke; and from him they come with peculiar force, because they are parts of his system.

Leibnitz has a great reputation in philosophy and mathematics; but the nature of this work forbids our entering into any detailed examination of his claims, inasmuch as he introduced no new ideas, no new extension of old methods. All that can here be done is to indicate the line of opposition which he took with respect to Locke's theory of the origin of Knowledge.

At first he answered Locke in a few paragraphs of a somewhat supercilious tone. He evidently looked upon the *Essay* as not destined to achieve any influential reputation.* This opinion he lived to alter; and in his *Nouveaux Essais sur l'Entendement Humain*, he brought all his forces to bear upon the subject; he grappled with the *Essay*, and disputed the ground with it inch by inch. This remarkable work was not published till many years after his death, and is not included in M. Dutens' edition. Dugald Stewart was not aware of its existence; and this fact will explain a passage in his *Dissertation*, where he says that Leibnitz always speaks coldly of Locke's *Essay*. Leibnitz does so in his earlier works; but in the *New Essays* he treats his great adversary with due respect; and in the Preface, speaks of him with eulogy. 'The *Essay concerning Human Understanding*, written by an illustrious Englishman, being one of the finest and most esteemed works of our time, I have resolved to make some comments on it. . . . Thus I shall procure a favourable introduction for my thoughts by placing them in such good company. . . . It is true that I am often of a different opinion; but so far from detracting on that account from the merit

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* See *Réflexions sur l'Essai de M. Locke*, in the *Recueil* of Desmaizeaux, vol. ii.

of this celebrated writer, that I do him justice in making known in what and wherefore I differ from him, when I judge it necessary to prevent his authority from prevailing over reason on some important points. In fact, although the author of the *Essay* says a thousand things which I must applaud, yet our systems greatly differ. His has greater affinity to that of Aristotle,—mine, to that of Plato.' This is the spirit in which the Homeric heroes regard their adversaries; an interchange of admiration for each other's prowess does not deaden one of their blows, but it makes the combat more dignified.

Leibnitz belonged to the Cartesians; but he also mingled with the doctrines of Descartes certain ideas which he had gathered from his commerce with antiquity. Plato, and Democritus especially, influenced him. To a mind thus furnished, the doctrines of Locke must needs have been unwelcome; indeed they could not be expected to gain admission. Moreover, as F. Schlegel well observed, every man is born either a Platonist or an Aristotelian.* Leibnitz and Locke were examples of this antagonism: 'Our differences,' says Leibnitz, 'are important. The question between us is whether the soul in itself is entirely empty, like tablets upon which nothing has been written (*tabula rasa*), according to Aristotle and the author of the *Essay;* and whether all that is there traced comes wholly from the senses and experience; or whether the soul originally contains the principles of several notions and doctrines, which the external objects only awaken on occasions, as I believe with Plato.'

The nature of the problem is well stated here; and Leibnitz sides with Plato in his solution of it. The main arguments by which he supports his view are those so often since repeated of the Universality and Necessity of certain truths, and of the incapacity of experience to furnish us with anything beyond a knowledge of individual cases. 'For if any event can be foreseen before it has been tried, it is manifest that *we* contribute something for our own parts.' *Ergo*, mere experience, it is argued, does *not* constitute all our knowledge. 'The senses, although *necessary* for all actual knowledge, are not sufficient to *give* us all of it; since the senses never can give but examples, that is to say particular or individual truths. But all the examples which confirm a general truth, however numerous, do not suffice to establish the universal necessity of

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* Coleridge used to pass off this aphorism as his own. It is to be found however in Schlegel's *Geschichte der Literatur*.

that truth; for it does not follow that that which has once occurred will always occur in the same way.'

Leibnitz continues: 'Whence it appears that necessary truths, such as we find in mathematics, and particularly in arithmetic and geometry, must have principles of which the proof does not depend upon examples, nor consequently upon the senses, although without the senses one would never have thought of them. So also logic, metaphysics, and morals, are full of such truths, and consequently their proofs can only come from those internal principles which are called *innate*.'

Locke would perfectly have agreed with these premisses, but the conclusion he would rightly have rejected. That the senses alone could not furnish us with any general truth, he taught as expressly as Leibnitz did; but this in no way affects his system, for he did not build his system upon the senses alone.

Leibnitz however seems to have been misled by Locke's language in the first definition of Reflection; for he says, 'Perhaps the opinions of our able author are not so far from mine as they appear to be. For after having employed the whole of his first book against innate knowledge taken in a certain sense, he acknowledges in the beginning of the second that there are ideas which do not originate from the senses, but arise from Reflection. Now reflection is nothing but attention to that which passes within us; and *the senses do not convey to us what we already possess within ourselves.* Can it then be denied that there is much innate in the mind?'

The passage in italics is a curious instance of how the mind, preoccupied with its own opinions, sees them reflected in the expressions of others. Leibnitz here assumes the very point at issue; assumes that the mind has innate ideas which the senses cannot convey to it; and this assumption he supposes to be contained in Locke's words. Locke taught precisely the contrary. 'The mind is itself innate,' continues Leibnitz—(to which we reiterate our objection: innate in *what?* In itself? or in us? To say that it is innate in itself is a quibble; that it is innate in *us,* is a displacement of the question: no one ever doubted that the mind of man was born in man—born with man; the question was, Are there any ideas born *with* the mind, or are all ideas acquired *by* the mind?) 'The mind is itself innate, and there are included in it substance, duration, change, action, perception, pleasure, and a thousand other objects of our intellectual ideas. . . . I have used the comparison

of a block of marble which has certain veins in it, rather than a plain piece of marble such as the philosophers call *tabula rasa;* because if the soul resembled tablets unwritten on, truths would be in us like the figure of Hercules is in the block of marble, when that marble may receive indifferently one figure or another. But if there are veins in the marble which mark the figure of Hercules rather than any other figure, that marble would be more determinate, and the figure of Hercules would in some way be innate, although labour would be necessary to discover the veins, and to free them from their envelopment of marble. Thus are ideas and truths innate in us.'

This is an ingenious statement of the theory: unfortunately for it, the very existence of these veins in the marble is an assumption, and an assumption not made for the facilitating of inquiry, but simply for the proof of the theory assumed: it is an hypothesis framed for the sake of explaining—what?—the hypothesis itself! Ideas are first assumed to be innate; to prove this assumption, another assumption—the existence of innate ideas—is made; and the theory is complete.

The real force of Leibnitz's theory lies in his distinction between contingent and necessary truths, and in his position that experience alone could never furnish us with necessary truths. The examination of this we must delay till we come to Kant.

A brief view of the celebrated scheme of *Pre-established Harmony* will be all that is necessary to complete what we have here to say of Leibnitz. It was in those days an axiom universally admitted that 'Like could only act upon Like.' The question then arose: how does body act upon mind; how does mind act upon body? The two were utterly *unlike:* how could they act upon each other? In other words: how is Perception possible? All the ordinary explanations of Perception were miserable failures. If the mind perceives copies of things, how are these copies transmitted? Effluvia, eidola, images, motions in spirits, etc., were not only hypotheses, but hypotheses which bore no examination: they did not get rid of the difficulty of two unlike substances acting upon each other.

Leibnitz borrowed this hypothesis from Spinoza—whom, by the way, he always abuses: The human mind and the human body are two *independent but corresponding* machines. They are so adjusted that they are like two unconnected clocks constructed so as that at the same instant one should *strike* the hour and the other *point* it. 'I cannot help coming to this notion,' he says, 'that God created

the soul in such a manner at first, that it should *represent* within itself all the simultaneous changes in the body; and that he has made the body also in such a manner as that it must of itself do what the soul wills: so that the laws which make the thoughts of the soul follow each other in regular succession, *must* produce *images* which shall be coincident with the impressions made by external objects upon our organs of sense; while the laws by which the motions of the body follow each other are likewise so coincident with the thoughts of the soul as to give to our *volitions* and *actions* the very same appearance as if the latter were really the natural and the necessary consequence of the former.'*

This hypothesis has been much ridiculed by those unaware of the difficulties it was framed to explain. It is so repugnant however to all ordinary views, that it gained few, if any, adherents.

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* The best edition of Leibnitz's works is that by Erdmann—*Leibnitii Opera Philosophica:* Berlin, 1839. The *Nouveaux Essais* are there for the second time published (the first was in Raspe's edition, Leipzig, 1765); and they have been since republished in a cheap and convenient form by M. Jacques: Paris, 1845.

CHAPTER IV.

SUMMARY OF THE THIRD EPOCH.

THE result of the speculations we have been considering—speculations begun by Gassendi and Hobbes, and further developed by Locke—was to settle, for a long while, the dispute respecting Experience, and to give therefore a new direction to inquiry.

It was considered as established,—1st. That we could have no knowledge not derived from experience. 2nd. That experience was of two kinds, viz. of external objects and of internal operations; therefore there were two distinct sources,—sensation and reflection. 3rd. That all knowledge could only consist in the agreement or disagreement of our ideas. 4th. Finally, that we could never know things in themselves, but only things as they affect us; in other words, we could only know our ideas.

To this had Locke brought Philosophy. Rightly interpreted, it was a denial of all Philosophy—a demonstration of its impossibility; but this interpretation Locke did not put upon his doctrines. That remained for Hume. Locke's system produced three distinct systems: Berkeley's Idealism, Hume's Scepticism, and Condillac's Sensationalism.

FOURTH EPOCH.

THE SUBJECTIVE NATURE OF KNOWLEDGE LEADS TO IDEALISM.

CHAPTER I.

BERKELEY.

§ I. Life of Berkeley.

THERE are few men of whom England has better reason to be proud than of George Berkeley, Bishop of Cloyne. To extraordinary merits as a writer and thinker, he united the most exquisite purity and generosity of character; and it is still a moot-point whether he was greater in head or heart.

He was born on the 12th of March, 1684, at Kilcrin, in the county of Kilkenny; and educated at Trinity College, Dublin, where, in 1707, he was admitted as a Fellow. In 1709, he published his *New Theory of Vision*, which made an epoch in Science; and the year after, his *Principles of Human Knowledge*, which made an epoch in Metaphysics. After this he came to London, where he was received with open arms. 'Ancient learning, exact science, polished society, modern literature, and the fine arts, contributed to adorn and enrich the mind of this accomplished man. All his contemporaries agreed with the Satirist in ascribing

"To Berkeley every virtue under heaven."

Adverse factions and hostile wits concurred only in loving, admiring, and contributing to advance him. The severe sense of Swift endured his visions; the modest Addison endeavoured to reconcile Clarke to his ambitious speculations. His character converted the satire of Pope into fervid praise. Even the discerning, fastidious, and turbulent Atterbury said, after an interview with him, "So much learning, so much knowledge, so much innocence, and such humility, I did not think had been the portion of any but angels, till I saw this gentleman." '*

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* Sir J. Mackintosh.

His acquaintance with the wits led to his contributing to the *Guardian*. He became chaplain and afterwards secretary to the Earl of Peterborough, whom he accompanied on his embassy to Sicily. He subsequently made the tour of Europe with Mr. Ashe; and at Paris met Malebranche, with whom he had an animated discussion on the ideal theory. In 1724, he was made Dean of Derry. This was worth eleven hundred pounds a year to him; but he resigned it in order to dedicate his life to the conversion of the North American savages, stipulating only with the Government for a salary of one hundred pounds a year. On this romantic and generous expedition he was accompanied by his young wife. He set sail for Rhode Island, carrying with him a valuable library of books, and the bulk of his property. But, to the shame of the Government, be it said, the promises made him were not fulfilled, and after seven years of single-handed endeavour, he was forced to return to England, having spent the greater part of his fortune in vain.

He was made Bishop of Cloyne in 1734. When he wished to resign, the King would not permit him; and being keenly alive to the evils of non-residence, he made an arrangement before leaving Cloyne, whereby he settled £200 a year, during his absence, on the poor. In 1752, he removed to Oxford, where, in 1753, he was suddenly seized, while reading, with palsy of the heart, and died almost instantaneously.

Of his numerous writings we cannot here speak; two only belong to our subject: the *Principles of Knowledge*, and the *Dialogues of Hylas and Philonous*. We hope to remove some of the errors and prejudices with which his name is incrusted. We hope to show that, even in what are called his wildest moods, Berkeley was a plain, sincere, deep-thinking man, not a sophist, playing with paradoxes to display his skill.

§ II. Berkeley and Common Sense.

All the world has heard of Berkeley's Idealism; and innumerable 'coxcombs' have vanquished it 'with a grin.'* Ridicule has not been sparing. Argument has not been wanting. Idealism has been laughed at, written at, talked at, shrieked at. That it has been *understood*, is not so apparent. In reading the criticisms upon his theory it is quite ludicrous to notice the constant iteration of

* 'And coxcombs vanquish Berkeley with a grin.'—*Pope.*

trivial objections which, trivial as they are, Berkeley had already anticipated. In fact the critics misunderstood him, and then reproached him for inconsistency—inconsistency, not with *his* principles, but with *theirs*. They forced a meaning upon his words which he had expressly rejected; and then triumphed over him because he did not pursue their principles to the extravagances which would have resulted from them.

When Berkeley denied the existence of matter, he meant by 'matter' that unknown *substratum*, the existence of which Locke had declared to be a necessary *inference* from our knowledge of qualities, but the nature of which must ever be altogether hidden from us. Philosophers had assumed the existence of Substance, *i.e.* of a *noumenon* lying underneath all *phenomena*—a substratum supporting all qualities—a *something* in which all accidents *inhere*. This unknown Substance, Berkeley rejects. It is a mere abstraction, he says. If it is unknown, unknowable, it is a figment, and I will none of it; for it is a figment worse than useless; it is pernicious, as the basis of all atheism. If by matter you understand *that* which is seen, felt, tasted, and touched, then I say matter exists: I am as firm a believer in its existence as any one can be, and *herein I agree with the vulgar*. If, on the contrary, you understand by matter that occult *substratum* which is *not* seen, *not* felt, *not* tasted, and *not* touched—that of which the senses do not, cannot, inform you—then I say I believe not in the existence of matter, and *herein I differ from the philosophers and agree with the vulgar*.

'I am not for changing things into ideas,' he says, 'but rather ideas into things; since those *immediate objects of perception*, which, according to you (Berkeley might have said, according to all philosophers) are only *appearances of things*, I take to be the real things themselves.

'*Hylas*. Things! you may pretend what you please; but it is certain you leave us nothing but the empty forms of things, the *outside of which only strikes the senses*.

'*Philonous*. What *you* call the empty forms and outside of things seem to *me* the very things themselves. . . . We both therefore agree in this, that we perceive only sensible forms; but herein we differ: you will have them to be empty appearances; I, real beings. In short, *you do not trust your senses; I do*.'

Berkeley is always accused of having propounded a theory which contradicts the evidence of the senses. That a man who thus dis-

regards the senses must be out of his own, was a ready answer; ridicule was not slow in retort; declamation gave itself elbow-room, and exhibited itself in a triumphant attitude. It was easy to declare that 'the man who seriously entertains this belief, though in other respects he may be a very good man, as a man may be who believes he is made of glass; yet surely he hath a soft place in his understanding, and hath been hurt by much thinking.'*

Unfortunately for the critics, Berkeley did *not* contradict the evidence of the senses; did *not* propound a theory at variance in this point with the ordinary belief of mankind. His peculiarity is, that he confined himself exclusively to the evidence of the senses. What the senses informed him of, that, and *that only*, would he accept. He held fast to the facts of consciousness; he placed himself resolutely in the centre of the instinctive belief of mankind: there he took his stand, leaving to philosophers the region of supposition, inference, and of occult substances.

The reproach made to him is really the reproach he made to philosophers, namely, that they would not trust to the evidence of their senses; that over and above what the senses told them, they imagined an occult something of which the senses gave no indication. 'Now it was against this metaphysical phantom of the brain,' says an acute critic, 'this crotchet-world of philosophers, and against it alone, that all the attacks of Berkeley were directed. The doctrine that the realities of things were not made for man, and that he must rest satisfied with mere appearances, was regarded, and rightly, by him, as the parent of scepticism with all her desolating train. He saw, that philosophy, in giving up the reality immediately within her grasp, in favour of a reality supposed to be less delusive, which lay beyond the limits of experience, resembled the dog in the fable, who, carrying a piece of meat across a river, let the substance slip from his jaws, while with foolish greed he snatched at the shadow in the stream. The dog lost his dinner, and philosophy let go her secure hold upon truth. He therefore sided with the vulgar, who recognize no distinction between the reality and the appearance of objects, and, repudiating the baseless hypothesis of a world existing unknown and unperceived, he resolutely maintained that what are called the sensible shows of things are in truth the very things themselves.'†

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* Reid, *Inquiry*.

† *Blackwood's Mag.*, June 1842, p. 814, art. *Berkeley and Idealism:* understood to have been written by Professor Ferrier.

True it is that, owing to the ambiguities of language, Berkeley's theory does seem to run counter to the ordinary belief of mankind, because by Matter men commonly understand the Seen, the Tasted, the Touched, etc.; therefore when the existence of Matter is denied, people naturally suppose that the existence of the Seen, the Tasted, and the Touched is denied, never suspecting that Matter, in its philosophical sense, is the *not* seen, *not* tasted, *not* touched. Berkeley has not, it must be confessed, sufficiently guarded against all ambiguity. Thus he says in one of the opening sections of his *Principles of Human Knowledge*, that 'It is indeed *an opinion strangely prevailing amongst men* that houses, mountains, rivers, and, in a word, all sensible objects, have an existence, natural or real, distinct from their being perceived by the understanding.' This is striking a false key-note. It rouses the reader to oppose a coming paradox. Yet Berkeley foresaw and answered the objections which Wimpey, Beattie, Reid, and others brought forward. He was not giving utterance to a caprice; he was not spinning an ingenious theory, knowing all the while that it was no more than an ingenuity. He was an earnest thinker, patient in the search after truth. Anxious therefore that his speculations should not be regarded as mere dialectical displays, he endeavoured on various occasions to guard himself from misapprehension.

'I do not argue against the existence of any one thing that we can apprehend either by sensation or reflection. *That the things I see with my eyes and touch with my hands do exist, really exist, I make not the least question. The only thing whose existence I deny is that which philosophers call Matter, or corporeal substance.* And in doing this there is no damage done to the rest of mankind, who, I dare say, will never miss it. . . .

'If any man thinks we detract from the reality or existence of things he is very far from understanding what has been premised in the plainest terms I could think of. . . . It will be urged that thus much at least is true, viz. that we take away all corporeal substances. To this my answer is, that if the word *substance* be taken in the vulgar sense for a combination of sensible qualities, such as extension, solidity, weight, etc., this we cannot be accused of taking away.* But if it be taken in the philosophic sense, for the support of accidents or qualities without the mind; then, in-

* An answer to Dr. Johnson's peremptory refutation of Berkeley, viz. kicking a stone: as if Berkeley ever denied that what we called stones existed!

deed, I acknowledge that we take it away, if one may be said to take away that which never had any existence, not even in the imagination.* But say what we can, some perhaps may be apt to reply, he will still believe his senses, and never suffer any arguments, however plausible, to prevail over the certainty of them. Be it so: assert the evidence of sense as high as you please, *we are willing to do the same.* That what I see, hear, and feel doth exist, *i. e.* is perceived by me, I no more doubt than I do of my own being; *but I do not see how the testimony of sense can be alleged as a proof of anything which is not perceived by sense.'* †

After reading these passages (and more of a similar cast might be quoted) in what terms shall we speak of the works written to refute Idealism? Where was the acuteness of the Reids and Beatties, when they tauntingly asked why Berkeley did not run his head against a post, did not walk over precipices, etc., as, in accordance with his theory, no pain, no broken limbs could result? ‡ Where was philosophical acumen, when writers could imagine they refuted Berkeley by an appeal to common sense—when they contrasted the instinctive beliefs of mankind with the speculative paradoxes of a philosopher, who expressly took his stand beside common sense against philosophers?

Men trained in metaphysical speculations may find it difficult to conceive the non-existence of an invisible unknowable substratum; but that the bulk of mankind find it almost impossible to conceive any such substratum, is a fact which the slightest inquiry will verify. We remember a discussion which lasted an entire evening, in which by no power of illustration, by no force of argument, could the idea of this substance, apart from its sensible qualities, be rendered conceivable to our antagonist.

Berkeley therefore, in denying the existence of matter, sided with

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* This is not well said. That substance was *imagined* to exist (as a support of accidents) Berkeley's argument supposes: it is against such an imaginary existence he directs his attacks. Perhaps he means that no *image* of substance could be formed in the mind; which no one disputes.

† *Principles of Human Knowledge*, sections 35, 36, 37, 40.

‡ 'But what is the consequence? I resolve not to believe my senses? I break my head against a post that comes in my way; I step into a dirty kennel; and after twenty such wise and rational actions I am taken up and clapt into a madhouse. Now I confess I had rather make one of those credulous fools whom nature imposes upon, than of those wise and rational philosophers who resolve to withhold assent at all this expense.'—Reid's *Inquiry*, ch. iv. § 20. This one passage is as good as a hundred.

common sense. He thought, with the vulgar, that matter was that of which his senses informed him; not an occult something of which he could have no information. The table he saw before him certainly existed: it was hard, polished, coloured, of a certain figure, and cost some guineas. But there was no *phantom table* lying underneath the *apparent table*—there was no invisible substance supporting that table. What he perceived was a table, and nothing more; what he perceived it to be, he would believe it to be, and nothing more. His starting-point was thus what the plain dictates of his senses, and the senses of all men, furnished.

§ III. Idealism.

The first step which a philosopher takes in any inquiry is a departure from Common Sense. Reflecting upon what his senses convey to him, he seeks an explanation of phenomena: and it is in proportion to the care with which he analyzes the facts to be explained, that he is usually supposed to be free from the mere extravagances of speculation. And yet Berkeley's rigorous analysis of the facts of consciousness has obtained for him the reputation of being one of the most extravagant of speculators!

This is the problem: our senses inform us of the existence of certain sensible qualities, such as extension, colour, solidity, etc. But our reason tells us that these qualities must be qualities *of* something: they cannot exist as mere extension, colour, etc.: there must be something extended, coloured, etc. What is that something? The solution given by the philosophers was uniformly this: *what* that substance is we can never know, because it lies beyond our apprehension; but we are forced to admit it, as a support to the qualities which we do apprehend, as a substance in which sensible qualities inhere. So that, deeply considered, the only reason for inferring the existence of Matter is *the necessity for some synthesis of attributes.*

Now, what did Berkeley? With very subtle perception of the difficulties of the problem, he boldly solved it by *making the synthesis a mental one.* Thus was matter wholly got rid of; it had no longer the excuse of being an inference.

The nature of human knowledge is the first object of his inquiry. 'It is said that the faculties we have are few, and those designed by Nature for the support and pleasure of life, and not to penetrate into the inward essence and constitution of things. Besides, the

mind of man, being finite, when it treats of things which partake of infinity, it is not to be wondered at if it run into absurdities and contradictions, out of which it is impossible it should ever extricate itself, it being of the nature of infinite not to be comprehended by that which is finite.'

This is plainly enough launched at Locke; but the worthy Bishop has no such disposition 'to sit down in quiet ignorance.' He suspects that 'we may be too partial in placing the fault originally in our faculties, and not rather in the wrong use we make of them.' He believes that God is too bountiful not to have placed knowledge within our reach, of which he has given us the desire. Berkeley here forgets the lesson man was taught in Paradise, where the Tree of Knowledge was placed within his reach, but the fruits thereof forbidden him. 'Upon the whole,' continues Berkeley, 'I am inclined to think that the far greater part, if not all, the difficulties which have hitherto amused philosophers and blocked up the way to knowledge, are entirely owing to themselves. That we have first raised a dust, and then complain we cannot see.'

The pretension on which all philosophy is founded is here openly proclaimed. The consequences of Locke's doctrine are rejected; the premisses are retained. Berkeley's account of the origin of knowledge is the same as Locke's, only somewhat more explicitly defined. 'It is evident to any one who takes a survey of the objects of human knowledge that they are either ideas actually imprinted on the senses, or else such as are perceived by attending to the passions and operations of the mind; or, lastly, ideas formed by help of memory and imagination, either compounding, dividing, or barely representing those originally perceived in the aforesaid ways.'

Remark, firstly, that the *objects* of knowledge are said to be *ideas*. This has a paradoxical air to those unaccustomed to metaphysics, yet it is the simple expression of the facts of consciousness. All that the mind can be conversant about is obviously its ideas: we are conscious of nothing but the changes that take place in our minds. Whether these ideas are the *copies* or *representatives* of any *things*—whether changes in our state are to be attributed to any external *cause*: this is a question of philosophy—a question which common sense makes no scruple of begging. You see before you a flower, and you assume that an external thing resembling that flower exists, and that your sensation is produced by it, as a reflection in a mirror is produced by an object out of the mirror.

But dive deeper into consciousness; interrogate yourself, and you will find that the comparison of the mirror is an assumption made only to *explain* the facts of consciousness, not given *in* those facts. Moreover, granting the assumption, you will then make the mind *immediately* conversant with its ideas *only*; for assuming that objects reflect themselves in the mirror, the mirror itself knows only the reflections: these it knows *immediately*; the objects it knows *mediately*, *i. e.* through the reflections. Thus is Berkeley keeping rigorously to the facts of consciousness when he says that the 'objects of knowledge are ideas.'

Secondly, remark on Berkeley's use of the word idea, which stands both for sensation and idea. We cannot but regard this confusion of language as the cause of no little misapprehension of his doctrines. It is well therefore to warn the reader thereof. Now to consequences. 'That neither our thoughts, nor passions, nor the ideas formed by our imagination, exist without the mind, is what everybody will allow; and to me it is no less evident that the various sensations or ideas imprinted on the sense, however blended or combined together (*that is, whatever objects they compose*), cannot exist otherwise than in a mind perceiving them. . . . The table I write on, I say, exists, *i. e.* I see it and feel it, and if I were out of my study I should say it existed; meaning thereby that if I was in my study I might perceive it, or that some other spirit actually does perceive it. As to what is said about the existence of unthinking things, without any relation to their being perceived, that is to me perfectly unintelligible. Their *esse* is *percipi*; nor is it possible they should have any existence out of the minds or thinking things which perceive them.'

It is in this last paragraph that the kernel of his system lies. He had identified *objects* with *ideas*: having done so, it was easy to prove that objects could not exist without a perceiving mind *in* which to exist as ideas. 'For what are the objects but the things which we perceive by sense?' Realism assents: objects are what we perceive. 'And *what*, I pray you,' continues Berkeley, 'do we perceive besides our own ideas or sensations?' Realism hesitates; certainly the mirror has nothing immediately present to it, besides the reflections. 'And is it not plainly repugnant,' triumphantly continues Idealism, 'that any one of these ideas, or any combination of them, should exist unperceived?' Realism has no answer to offer. It is in a dilemma from which there is apparently no escape.

The supposition of the existence of matter is founded on the

doctrine of *abstract ideas* (against which Berkeley wages war). 'For can there be a nicer strain of abstraction than to distinguish the existence of sensible objects from their being perceived, so as to conceive them existing unperceived? Light and colours, heat and cold, extension and figures—in a word, *the things we see and feel*—what are they but so many sensations, notions, ideas, or impressions on the sense; *and is it not impossible to separate, even in thought, any of these from perception?* For my part, I might as easily divide a thing from itself. I may indeed divide in my thoughts, or conceive apart from each other, those things which perhaps I never perceived by sense so divided. Thus I imagine the trunk of the human body without the limbs, or conceive the smell of a rose without thinking of the rose itself. So far I will not deny that I can abstract, if that be properly called abstraction which extends only to the conceiving separately such objects as it is possible may really exist, or be actually perceived asunder; but my conceiving or imagining power does not extend beyond the possibility of real existence or perception. Hence, as it is impossible for me to see or feel anything without an actual sensation of that thing, so it is impossible for me to conceive in my thoughts any sensible thing or object distinct from the sensation or perception of it. In truth, the object and the sensation are the same thing, and cannot therefore be abstracted from one another. . . .

'In a word, all the choir of heaven and furniture of earth—all those bodies which compose the mighty frame of the world—have not any subsistence without a mind: their *esse* is to be perceived or known; and consequently, so long as they are not actually perceived by me, or do not exist in my mind, or that of any other created spirit, they must either have no existence at all, or else subsist *in the mind of some eternal spirit*. . . .

'Though we hold indeed the objects of sense to be nothing else but ideas which cannot exist unperceived, yet we may not hence conclude they have no existence except only while they are perceived by us, since there may be some other spirit that perceives them, though we do not. Whenever bodies are said to have no existence without the mind, *I would not be understood to mean this or that particular mind, but all minds whatsoever*. It does not therefore follow that bodies are annihilated and created every moment, or exist not at all during the intervals between our perception of them. . . .

'I am content to put the whole upon this issue: if you can but

conceive it possible for one extended movable substance, or in general for any one idea, or anything like an idea, to exist otherwise than in a mind perceiving it, I shall readily give up the cause; I shall grant you its existence, though you cannot either give me a reason why you believe it exists, or assign any use to it when it is supposed to exist. I say the bare possibility of your opinion being true, shall pass for an argument that it is so.

'But, say you, surely there is nothing easier than for me to imagine trees in a park, or books in a closet, and nobody by to perceive them. I answer, you may so: there is no difficulty in it. But what is all this, I beseech you, more than *framing in your mind certain ideas* which you call books and trees, and at the same time *omitting to frame the idea of any one perceiving them?*

'But do not *you yourself perceive or think of them all the while?* This therefore is nothing to the purpose: it only shows you have the power of imagining or framing ideas in your mind, but it does not show that you can conceive it possible the objects of your thought may exist without the mind. To make out this, it is necessary that you conceive them existing unperceived or unthought of, which is a manifest repugnancy. When we do our utmost to conceive the existence of external bodies, we are *all the while only contemplating our own ideas.*'*

The last very remarkable passage must have been overlooked by the critic before mentioned, otherwise he would not have said that the 'knot which Berkeley loosened, but which he certainly did not explicitly untie,' was to be resolved, for the first time, by the arguments he there brings forward. Berkeley had untied the knot, explicitly, satisfactorily; and that too in the same way as his critic.†

The distinction between *primary* and *secondary* qualities, Berkeley easily refutes, and shows that the same arguments which make the secondary qualities to be only affections of the mind, may be applied to the primary qualities.

Having battered down almost every objection, trivial or serious, that could be offered, Idealism iterates its fundamental principle:— All our knowledge of objects is a knowledge of ideas; objects and ideas are the same. *Ergo,* nothing exists but what is perceived.

Realism espies a loophole. These ideas, with which we admit

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* The foregoing passages are all taken from the *Principles of Human Knowledge*, sections 5, 6, 8, 22, and 23.

† See the article in *Blackwood*, p. 817, *et seq.*

the mind to be solely conversant, are but the ideas (images) of certain things: these things exist independently of being perceived, though their ideas cannot. Berkeley foresaw this also. 'But, say you, though the ideas themselves do not exist without the mind, yet there may be things like them whereof they are copies or resemblances, which things exist without the mind in an unthinking substance. I answer, *an idea can be like nothing but an idea;* a colour or figure can be like nothing but another colour or figure. Again, I ask whether those supposed originals or external things, of which our ideas are the pictures or representations, be themselves perceivable or no? If they are, then they are ideas, and we have gained our point; but if you say they are not, I appeal to any one whether it be sense to assert a colour is like something which is invisible; hard or soft, like something which is intangible?' (Sect. 8.)

Realism is without a shadow of an answer. The philosophers are powerless against a theory so defended. No wonder that Idealism should have been pronounced irrefutable; the weapons were not forged, or, at any rate, were not in the armoury of philosophy, which could successfully assail a fortress built on such a position. Dr. Reid's attempt we shall examine by-and-by.

As far as the simple facts of Consciousness extend, the analysis given by Berkeley is unimpeachable, unless we deny that Consciousness is *immediately* affected by sensations, and assert that it is *immediately* affected by external objects; but no metaphysician ever took up this position, for it would lead him to maintain that Consciousness *is* nothing but these very sensations, which are produced in the organism by the action of external influences; and this would be getting rid of the substratum Mind, in order to rescue the substratum Matter. No metaphysician therefore ever did or could, logically, object to Berkeley's fundamental position; but only tried to elude it, or make it open into other issues.

Given, however, the facts, there comes the question of inferences. It has been well said by Mr. Herbert Spencer that the denial of an external world 'consists of a series of dependent propositions no one of which possesses greater certainty than the single proposition to be disproved.'* If the grounds of our belief in an external world are questionable, what better grounds have we for the belief that the external world is a mere subjective phenomenon?

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* *Principles of Psychology*, p. 36.

We are to settle whether it is a more plausible hypothesis that ideas are proximately produced in us by the mere Will of the Creator, whose will is effectuated by certain laws; or whether the ideas are proximately produced in us by external objects, which exist quite independently of us. This question, remember, is one which admits of no proof. It is not a question of fact, but of plausibility. It is not to be decided by common sense, but by analogical reasoning. Our *knowledge* extends no further than our *ideas*. Our *inferences* can be nothing more than inferences.

Berkeley has far better reasons for his inference than his critics imagine. He could not see the force of the argument which made Matter a necessary postulate. That we *could* have sensations and ideas without the presence of objects is manifest from the fact that we *do* often have them so, in dreams and frenzies. If therefore matter is not always necessary for the production of ideas—if ideas can be sometimes produced without the presence of external objects —the pretended necessity, which alone forms the argument for the existence of matter, is done away with.

'But though,' he says, 'we might possibly have all our sensations without bodies, yet perhaps it may be thought easier to conceive and explain the manner of their production by supposing external bodies in their likeness rather than otherwise, and so it might at least be probable there are such things as bodies that excite ideas in our minds. But neither can this be said, for though we give the Materialists their external bodies, they, by their own confession, are never nearer the knowing how our ideas are produced, since they own themselves unable to comprehend in *what manner body can act upon spirit,* or how it is possible it should imprint an idea in the mind.'

We have here the difficulty stated, which most Dualists (those who maintain the existence of spirit and matter, as distinct substances) have not been sufficiently alive to; and one which gave rise to Leibnitz's theory of pre-established harmony, and to Malebranche's theory of our seeing all things in God. This difficulty is indeed insuperable. It is easy to talk of the spirit being a mirror in which the universe reflects itself. Try for an instant to imagine a substance such as matter reflecting itself in, or acting upon, another substance having no one property in common with it. You cannot. Nor is this all: you cannot even imagine two substances so distinct as matter and spirit are defined to be.

Berkeley then is right in triumphing over Realism and Dualism.

Right in saying that if he were to accord them the existence of matter, they could make no use of it. The subject would remain as dark as before: matter throws no light on it. He maintains that our ideas are produced in us in conformity with the laws of Nature. These laws have been ordained by God. To suppose that matter is the mere occasional cause—the *vehicle through which the laws of Nature operate*—is gratuitous. The agency of the Creator is more simple and direct. He had no need of creating first laws, and afterwards matter, through which these laws should come into effect. He created the laws alone; they act upon us as they were destined to act, and without the superfluous aid of matter, which is a mere go-between.

Now, as an inference—as a scientific hypothesis—few thoroughly acquainted with the question, and with the data on which it was founded, can, we think, deny that this of Berkeley is many degrees superior to the hypothesis of Dualism. While philosophers teach that there are two distinct eternal substances, which they name Spirit and Matter, Berkeley teaches that there is only *one* substance, viz. *Spirit*. With this one substance he can construct the world. According therefore to the fundamental rule in philosophy, that 'Entities or existences are not to be multiplied unless upon necessity' (*entia non sunt multiplicanda præter necessitatem*), the introduction of a second substance, viz. matter, is superfluous, or worse. Of the existence of matter we have no proof whatever: it is a mere inference; it is inferred in order to explain the phenomena: and what phenomena? those of perception—*i. e.* the phenomena of the thinking substance.

If, then, Berkeley is more rigorous in his analysis of facts, and more ingenious and plausible in his hypothesis, than his antagonists suppose, shall we pronounce his Idealism satisfactory and true?

Hume said of it that it admitted of no answer, but produced no conviction. And we have met with no final refutation of it. Yet, inasmuch as it is the irresistible belief of mankind that objects are not dependent either upon our perception of them, or upon the perception of any other mind, for their existence—that objects exist *per se*, and would continue to exist if all minds were annihilated—Berkeley's theory never can produce conviction. Reid therefore was right in standing by this universal and irresistible belief. He was egregiously wrong however in supposing that he answered Berkeley by an appeal to this irresistible belief. It does not follow that a belief which is irresistible must be true. This maxim, so

loudly proclaimed by the Scotch school,* is refuted by several well-known facts in philosophy. Thus—to take the most striking example—the belief that the sun revolved round the earth was for many centuries irresistible, and false. Why may not Berkeley have been a metaphysical Copernicus, who, by rigorous demonstration, proved the belief of mankind in the existence of matter to be irresistible and false? Reid has no answer to give. He can merely say, 'I side with the vulgar;' but he might have given the same answer to Copernicus. Many illustrious men (Bacon among them) ridiculed the Copernican theory; but all the dogmatism, ridicule, and common sense in the world could not affect that theory. Why, we repeat, may not Berkeley have been a metaphysical Copernicus?

To prove that he was not, you must prove his reasoning defective; to prove this, you must show wherein his error lies, and not wherein his theory is at variance with your belief. All that your irresistible belief amounts to, is that of a strong, a very strong, presumption against the truth of that which opposes it. Reid, in accepting this presumption as a proof, was in the right so long as Berkeley's reasoning was not strong enough to overcome it; but singularly wrong in supposing that the presumption was a refutation.

Berkeley's main position is, that the *objects of knowledge are ideas, and nothing but ideas.* The position is incontrovertible. The conclusion therefore: *all human knowledge can only be the knowledge of ideas, and of nothing but ideas,* is equally incontestable. Not less so the second conclusion: *objects being identified with ideas, and we having no idea of an object but as it is perceived, the* ESSE *of objects to us is* PERCIPI.

In admitting all this, what do we admit? Simply that human knowledge is not the 'measure of all things.' Objects *to us* can never be more than ideas; but are *we* the final measure of all ex-

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* Especially by Dr. Brown, who says that the 'sceptical argument for the non-existence of an external world, as a mere play of reasoning, admits of no reply.' The only reply he makes is, that the belief is irresistible. Hume had already admitted that the belief was irresistible; the whole scope of his philosophy was to prove it both irresistible and *false.* How absurd then to appeal to the belief! Kant truly observes, in the Preface to his *Kritik*, 'Admitting Idealism to be as dangerous as it really is, it would still remain a shame to philosophy and reason to be forced to ground the existence of an external world on the (mere) evidence of belief.' The more so as the fact of belief had never been questioned. The question was, Is the belief well grounded?

istence? It was the dogma of the Sophist that Man is the measure of all things. It should not be the dogma of the sober thinker. Because we can only *know* objects as ideas, is it a proper conclusion that objects only *exist* as ideas? For this conclusion to be rigorous, we must have some proof of our knowledge being the absolute standard of truth, instead of the standard of the relation things bear to our intellect.

The Idealist will say, 'If you cannot *know* anything beyond your ideas, why do you infer that there *is* anything?'—A question not easily answered. He will moreover say, 'I defy you to conceive anything existing unperceived. Attempt to imagine the existence of matter when mind is absent. You cannot, for in the very act of imagining it, you include an *ideal percipient*. The trees and mountains you imagine to exist away from any perceiving mind, what are they but the very ideas of *your* mind, which you transport to some place where you are not? In fact, to separate existence from perception is radically impossible. It is God's synthesis, and man cannot undo it.'*

To this we answer, it is very true that, inasmuch as our knowledge of objects is identical with our ideas, we can never, by any freak of thought, imagine an object *apart from the conditions under which we know it*. We are forced by the laws of our nature to invest objects with the forms in which we perceive them.† We cannot therefore conceive anything which has not been subject to the laws of our nature, because in the very act of conception those laws come into play. But is it not a very different proposition to say, 'I cannot conceive things otherwise than according to the laws of my nature,' and to say, 'I cannot conceive things otherwise, *consequently* they cannot exist otherwise'? The Idealist here assumes that knowledge is absolute, not relative—that man is the measure of all things.

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* See this argued in a masterly manner by the critic in *Blackwood* before quoted.

† 'When in perception,' says Schelling, 'I represent an object, *object and representation are one and the same.* And simply in this our inability to discriminate the object from the representation during the act, lies the conviction which the common sense of mankind has of the reality of external things, although these become known to it only through the representations.' (*Ideen zu einer Philos. der Natur, Einleitung*, p. xix., quoted by Sir W. Hamilton.) This is indisputable, but it is only saying that our knowledge of things is subject to the conditions of knowledge. Because *we* cannot discriminate between the object and the representation, it is no proof that there is no distinction between them.

Perception is the *identity* (in the metaphysical sense of the word) of the ego and the non-ego—the *tertium quid* of two united forces; as water is the identity of oxygen and hydrogen. The ego can never have any knowledge of the non-ego, in which it (the ego) is not indissolubly bound up; as oxygen never can unite with hydrogen to form water, without merging itself and the hydrogen in a *tertium quid*. Let us suppose the oxygen endowed with a consciousness of its changes. It would attribute the change *not* to hydrogen, which is necessarily hidden from it, *but to water*, the only form under which hydrogen is known to it. In its consciousness it would find the state named water (perception), which would be very unlike its own state (the ego); and it would suppose that this state, so unlike its own, was a representation of that which caused it. We say then, that although the hydrogen can only exist for the oxygen (in the above case) in the identity of both as water, this is no proof that hydrogen does not exist under some other relations to *other* forces. In like manner, although the non-ego cannot exist in relation to mind otherwise than in the identity of the two (perception); this is no sort of proof that it does not exist in relation to other beings under quite different conditions.

In conclusion, we admit, with the Idealists, that all our *knowledge* of objects consists in our ideas. But we cannot admit that all existence is limited by our knowledge, merely on the ground that when we would conceive anything existing, we are forced to conceive it in accordance with the laws of our conceptive faculties. We admit with the Idealists, that all our knowledge is *subjective*. But we do not admit that what is true subjectively is true objectively. We believe in the existence of an external world quite independent of any percipient; not because such is the obvious and universal belief, but because the arguments by which Idealism would controvert it are vitiated by the assumption of knowledge being a criterion of all existences. Idealism agrees with Realism in placing reliance on the evidence of sense; it argues however that inasmuch as our *knowledge* is confined to ideas, we have no right to assume anything beyond ideas. Yet it also is forced to assume something as the cause of ideas: this cause it calls the Will of the Creator; and this is an assumption. The real dispute therefore should be concentrated on this point: Which assumption is more consonant with our irresistible belief,—the assumption of an external matter *unlike* our sensations, yet the cause of them; or the assumption of a providential scheme, in which our sensations are

the effects of the operation of Divine laws, and in which matter plays no part? The answer cannot be dubious. The former assumption, as more consonant with universal belief, must be accepted.

Berkeley, we believe, failed as a metaphysical Copernicus, because the assumption which he opposed to the universal belief was less consonant with that belief than the assumption it was meant to replace. Had Copernicus not started an hypothesis which, however contradictory to the senses, nevertheless afforded a much better explanation of celestial phenomena than was possible on the old hypothesis, he would not have been listened to. Berkeley's assumption, if conceded, carries him no deeper than the old assumption. Idealism explains nothing. To accept it would be to renounce a universal belief for a mere hypothesis. But that Berkeley was a deep and remarkable thinker must be readily conceded; and he failed, as the greatest Philosophers of all times have failed, not because he was weak, but because Philosophy was impossible.

Those who have followed the course of this History with attention to its *moral* (so to speak) will not fail to observe how Berkeley's Idealism is at bottom but the much decried system of Spinoza, who taught that there was but one essence in the universe, and that one was Substance. Berkeley also taught that there was but one, and that one was Thought. Now call this One what you will, the result is the same: speculatively or practically. You may have certain degrading associations attached to the idea of substance; or certain exalted associations attached to that of spirit. But what difference can your associations make with respect to the real nature of things?

One great result of Berkeley's labours was the lesson he taught of the vanity of ontological speculations. He paved the way to that scepticism which, gulf-like, yawns as the terminal road of all consistent Metaphysics.

FIFTH EPOCH.

THE ARGUMENTS OF IDEALISM CARRIED OUT INTO SCEPTICISM.

CHAPTER I.

HUME.

§ I. Life of Hume.

MR. BURTON'S ample and excellent biography* would furnish us with materials for a pleasant memoir, could we here afford the requisite space; but we must content ourselves with referring the reader to that work, and with merely recording the principal dates and events of an uneventful life.

David Hume was born at Edinburgh, 26th April, 1711; the youngest child of a poor laird of good blood. He was an orphan before his education was completed. His guardians first thought of the profession of law, but, owing to his repugnance, he was absolved from that career, and was placed in a Bristol counting-house, where he did not remain long. On coming of age he found himself in possession of a small property, too small for honourable subsistence in England, but large enough for France, and to Rheims he went; from thence to La Flèche, where the Jesuits' college and library were great attractions to the studious youth; and there he passed several years in solitary study.

A great ambition moved him: he was to accomplish for moral science a revolution analogous to that which Bacon had effected in physical science. His *Treatise on Human Nature*, which appeared in 1737, and which fell still-born from the press, was announced as an attempt to introduce the experimental method into reasonings on moral science. We need scarcely point out the profound misconception of the Experimental Method here implied; nor is it

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* *The Life and Correspondence of David Hume, from the Papers bequeathed to the Royal Society of Edinburgh.* By John Hill Burton. 2 vols.

necessary to show at any length that there was no novelty whatever in Hume's attempt to test psychology by experience.

In 1741 appeared the first part of his immortal *Essays*; and in 1747 he accompanied General St. Clair, as secretary, in the embassy to Vienna and Turin. In 1752 he published his *Political Discourses* and the *Inquiry concerning the Principles of Morals*. The appointment of Librarian to the Faculty of Advocates in Edinburgh—the salary of which he generously gave to the poor poet Blacklock—placed at his disposal a fine collection of books; and this suggested the undertaking which has long been held his greatest title to fame—the *History of England*, the first volume of which appeared in 1754.

For the literary historian there are two piquant episodes in the life of Hume. The first is the ovation given to the philosopher in Paris, whither he had accompanied the Marquis of Hertford; the second is his friendship and quarrel with Rousseau. We cannot pause to dwell on either.

Hume died in the spring of 1776, leaving a name imperishable in our literature, although it is a name attached to opinions which have roused, and will continue to rouse, the most vehement opposition. It should never be forgotten, moreover, that, in spite of Hume's opinions, so wise and good a man as Adam Smith could publicly write of him, 'Upon the whole, I have always considered him, both during his lifetime and since his death, as approaching as nearly to the idea of a perfectly wise and virtuous man, as perhaps the nature of human frailty will permit.'

§ II. Hume's Scepticism.

The marvellous acuteness and subtlety of Hume have never been denied; and his influence upon speculation has been aided as much by the alarm his doctrines excited, as by the ingenuity with which they were upheld. If Berkeley met with no refuters, Hume could meet with none. Antagonists have generally been compelled to admit that the sceptical reasoning was unanswerable.

Locke had shown that all our knowledge was dependent upon experience. Berkeley had shown that we had *no* experience of an external world independent of perception; nor could we have any such experience. He pronounced matter to be a figment. Hume took up the line where Berkeley had cast it, and flung it once more into the deep sea, endeavouring to fathom the mysteries of being.

Probing deeper in the direction Berkeley had taken, he found that not only was Matter a figment, Mind was a figment also. If the occult substratum, which men had inferred to explain material phenomena, could be denied, because not founded on experience; so also, said Hume, must we deny the occult substratum (mind) which men have inferred to explain mental phenomena. All that we have any experience of, is impressions and ideas. The substance *of* which these are supposed to be impressions, is occult—is a mere inference; the substance *in* which these impressions are supposed to be, is equally occult—is a mere inference. Matter is but a collection of impressions. Mind is but a succession of impressions and ideas.*

Thus was Berkeley's dogmatic Idealism converted into Scepticism. Hume, speaking of Berkeley, says, 'Most of the writings of that very ingenious philosopher form the best lessons of scepticism which are to be found either among the ancient or modern philosophers, Bayle not excepted. He professes however in his title-page (and undoubtedly with great truth) to have composed his book against the Sceptics, as well as against the Atheists and Free-thinkers. But that all his arguments, though otherwise intended, are in reality merely sceptical appears from this, that they admit of no answer, and produce no conviction.'

Remark also that Hume's scepticism, though it reduces philosophy to a singular dilemma, viz. that of either refuting the sceptical arguments, or of declaring itself and its pretensions to be vain and baseless, nevertheless affects in no other way the ordinary judgments or actions of mankind. Much stupid ridicule and frivolous objection have been, and probably will continue to be, brought against Hume. Reid, from whom one might have expected something better, is surprised at Hume's pretending to construct a science upon human nature, 'when the intention of the whole work is to show that there is neither human nature nor science in the world. It may perhaps be unreasonable to complain of this conduct in an author who neither believes his own existence nor that of his reader; and therefore could not mean to disappoint him, or laugh at his credulity. Yet I cannot imagine that the author of the *Treatise on Human Nature* is so sceptical as to plead this apology.

* Locke had already shown that we are as ignorant of spirit as of substance. We know mind only in its *manifestation*; we cannot know it *per se* as a *substratum*. Hume's argument therefore had a firm foundation in philosophy. He only concluded from admitted premisses.

He believed, against his principles, that he should be read, and that he should retain his personal identity, till he reaped the honour and reputation justly due to his metaphysical acumen.' He continues further in this strain, dragging in the old error about Pyrrho having inconsistently been roused to anger by his cook, 'who probably had not roasted his dinner to his mind,' and compares this forgetfulness to Hume's every 'now and then relapsing into the faith of the vulgar.'*

If this was meant for banter, it was very poor banter; if for argument, it was pitiable. But if such arguments appeared valid to a thinker of Reid's reputation, it is reasonable to suppose that inferior men may also receive them as conclusive. Hume shall therefore be allowed to speak for himself; and he shall speak in the language of that very *Treatise on Human Nature* to which Reid alludes:—

'Should it be here asked me whether I sincerely assent to this argument which I seem to take such pains to inculcate, and whether I be really one of those sceptics who hold that all is uncertain, and that our judgment is not in *any* thing possessed of *any* measures of truth and falsehood, I should reply that this question is entirely superfluous, and that neither I nor any other person was ever sincerely and constantly of that opinion. Nature, by an absolute and uncontrollable necessity, has determined us to judge as well as to breathe and feel; nor can we any more forbear viewing certain objects in a stronger and fuller light upon account of their customary connection with a present impression, than we can hinder ourselves from thinking as long as we are awake, or seeing the surrounding bodies when we turn our eyes towards them in broad sunshine. Whoever has taken the pains to refute the cavils of this *total* scepticism, has really disputed without an antagonist, and endeavoured by arguments to establish a faculty which *Nature has antecedently implanted in the mind and rendered unavoidable.*

'My intention then in displaying so carefully the arguments of that fantastic sect, is only to make the Reader sensible of the truth of my hypothesis, that all our reasonings concerning causes and effects are derived from nothing but custom; and that belief is more properly an act of the sensitive than of the cogitative part of our natures. . . . If belief were a simple act of the thought without any peculiar manner of conception, or the addition of force and vivacity, it must infallibly destroy itself, and in every case terminate

* *Inquiry*, Introd. i. § 5.

in a total suspense of judgment. But as experience will sufficiently convince any one, that although he finds no error in my arguments, yet he still continues to believe and think and reason as usual, he may safely conclude that his reasoning and belief is some sensation or peculiar manner of conception, which 't is impossible for mere ideas and reflections to destroy.'*

It has always struck us as an illustration of the great want of candour displayed by Hume's opponents, that they never quoted this very significant and explicit passage; indeed, we never remember to have seen the passage quoted by any one. Let us ask, what does the foregoing declaration amount to, if not to the boasted 'common-sense view,' that our belief in the existence of matter is instinctive, fundamental? Does not Dr. Brown's admission that the sceptical argument is unanswerable as a mere play of reasoning, concede all that Hume requires? Does not Dr. Brown's conclusion, that we are thrown upon 'irresistible belief' as our only refuge against scepticism, equally accord with Hume's explicit declaration that we *do* believe and cannot help believing, though we can give no reason for the belief?

'Thus the sceptic,' Hume adds a little further on, 'still continues to reason and believe, even though he asserts that he cannot defend his reason by reason; and by the same rule he must assent to the principle concerning the existence of body, though he cannot pretend by any arguments of philosophy to maintain its veracity. *Nature has not left this to his choice,* and has doubtless esteemed it an affair of too great importance to be trusted to our uncertain reasonings and speculations. We may well ask, *what causes induce us to believe in the existence of body?* but 't is in vain to ask *whether there be body or not?* that is a point which we must take for granted in all our reasonings.'

After this, let no more be said about Hume's practical inconsequences. Locke before him had clearly enough seen and signalized the impotence of the attempt to penetrate beyond phenomena, and had, with his usual calm wisdom, counselled men to 'sit down in quiet ignorance.' He knew the task was hopeless; he knew also that it was trivial. God has given us the means of knowing all that directly concerns us, a certainty which suffices for all our wants. With that, reasonable men will be content. If they seek more, they seek the impossible; if they push their speculations deeper,

* *Human Nature*, part iv. § i. p. 250.

they end in scepticism. It was the philosophical *mission* of Hume (to adopt a phrase in vogue) to show how inevitably all such speculations, if consistent, ended in scepticism.

'Men,' he says, 'are carried by a natural instinct or prepossession to repose faith in their senses. When they follow this blind and powerful instinct of nature, they always suppose the *very images* presented to the senses *to be* the external objects, and *never entertain any suspicion that the one are nothing but representatives of the other*. But this universal and primary opinion of all men is soon destroyed by the slightest philosophy, which teaches us that nothing can ever be present to the mind but *an image or perception*. So far then we are necessitated by *reasoning to contradict the primary instincts of Nature*, and to embrace a new system with regard to the evidence of our senses. But here philosophy finds herself extremely embarrassed, when she would obviate the cavils and objections of the sceptics. She can no longer plead the infallible and irresistible instinct of nature, for that led us to quite a different system, which is acknowledged fallible, and even erroneous; and to justify this pretended philosophical system by a chain of clear and convincing argument, or even any appearance of argument, exceeds the power of all human capacity.

'Do you follow the instinct and propensities of nature in assenting to the veracity of the senses? But these lead you to believe that the very *perception or sensible image is the external object*—(Idealism).

'Do you disclaim this principle in order to embrace a more rational opinion, that the perceptions are only *representations* of something external? You here depart from your natural propensities and more obvious sentiments; and yet are not able to satisfy your reason, which can never find any convincing argument from experience to prove that the perceptions are connected with external objects'—(Scepticism).

This is the dilemma to which Philosophy is reduced: out of it there is no escape; and Hume deserves the gratitude of mankind for having brought philosophy to this pass. Mankind however has paid him with reprobation. As the whole course of this History has been occupied in tracing the inevitable result of all Philosophy to be precisely this much abused scepticism, our readers will be prepared for a different appreciation of Hume. Let us therefore endeavour to define the nature of this scepticism, which has caused such great alarm. Scepticism, meaning doubt, and being frequently

used to signify religious doubt, has alarming associations attached to it. To call a man a sceptic is to call him a heretic. And, unfortunately for Hume's philosophical reputation, he was a sceptic in religion as well as in philosophy, and mankind have consequently identified the former with the latter.

Now, philosophical scepticism can only mean a doubt as to the possibility of Philosophy;—in other words, a doubt only on one particular subject. If I accept the consequences to which the doctrine of Hume leads me, am I forced to suspend my judgment, and to pronounce *all* subjects uncertain? or am I only to pronounce *some* subjects uncertain? The latter is clearly the only opinion I can entertain. *What* then are the questions on which I must be content to remain in darkness? Locke, no less than Hume, has told us: All which relate to Philosophy—which pretend to discuss the nature and essences of things.

This scepticism, the reader must acknowledge, has nothing very alarming in it, except to Philosophy. It is maintained by the vast majority of thinking men—some from conviction, others from a vague sense of the futility of ontological speculation. Only the bad passions roused in discussion could pretend to confound it with heresy. This Scepticism indicates the boundaries of inquiry. It leads us from impossible attempts to fly, to instruct us how securely we may run. It destroys Philosophy only to direct all our energies towards positive Science. In the words of Goethe, 'Let us not attempt to demonstrate what cannot be demonstrated! Sooner or later we shall otherwise make our miserable deficiencies more glaring to posterity by our so-called works of knowledge.'

Hume was a sceptic; and, consequently, early in life ceased devoting his marvellous acuteness to any of the questions agitated in the schools. His *Essays* and his *History* were excellent products of this change of direction; and although he did devote a portion of the *Essays* to philosophy, yet it was but a portion, and one which gave a more popular and elegant exposition of the principles of his first work.

§ III. Hume's Theory of Causation.

It is customary to speak of 'Hume's theory of Causation,' and to bestow no inconsiderable acrimony upon him on its account. But, in the first place, the theory is not peculiarly his; in the second place, his application of it to the question of Miracles, which has

excited so much vehement controversy, reduces itself to 'this very plain and harmless proposition, that whatever is contradictory to a complete induction is incredible. That such a maxim as this should be either accounted a dangerous heresy, or mistaken for a recondite truth, speaks ill for the state of philosophical speculation on such subjects.'*

The theory may be thus briefly stated. All our *experience* of causation is simply that of a constant succession. An antecedent followed by a sequent—one event followed by another: this is all that we experience. We attribute indeed to the antecedent, a *power* of producing or causing the sequent; but we can have no experience of such a power. If we believe that the fire which has burned us will burn us again, we believe this from habit or custom; not from having perceived any *power* in the fire. We believe the future will resemble the past, because custom has taught us to rely upon such a resemblance. 'When we look about us towards external objects, and consider the operation of causes, we are never able in a single instance to discover any power or necessary connection—any quality which binds the effect to the cause, and renders the one an infallible consequence to the other. We only find that the one does actually in fact follow the other. The impulse of one billiard-ball is attended with motion in the second. This is the whole that appears to the outward senses. The mind feels no sentiment or inward impression from this succession of objects; consequently there is not, in any single instance of cause and effect, anything which can suggest the idea of power or necessary connection.'† This is the whole of his theory. His explanation of our belief in power, or necessary connection, is that it is a matter of habit.

I know not whether Hume ever read Glanvill's *Scepsis Scientifica*. The title was one to attract him. At any rate, Glanvill had clearly enough stated Hume's theory, *e.g.* 'All knowledge of causes is deductive; for we know of none by simple intuition, but through the mediation of their effects. So that we cannot conclude anything to be the cause of another *but from its continually accompanying it;* for the *causality* itself is *insensible*.' Malebranche had also anticipated it; and so had Hobbes. The language indeed of the latter is so similar to the language employed by Hume, that I agree with Dugald Stewart in believing Hume to have borrowed it

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* Mill's *System of Logic*, vol. ii. p. 183. † *Essays*, sect. vii.

from Hobbes. 'What we call experience,' says Hobbes, 'is nothing else but remembrance of what antecedents have been followed by what consequents. . . . No man can have in his mind a conception of the future, for the future is not yet; but of our conceptions of the past we make a future, or rather call past future relatively. Thus, after a man has been accustomed to see like antecedents followed by like consequents, whensoever he seeth the like come to pass to anything he had seen before, he looks there shall follow it the same that followed then.'

This theory of Causation has been hotly debated, partly because of the 'consequences' which some have seen, with alarm, to be deducible from it (for opinions are judged of more by their supposed consequences than by their presumed truth); partly also because Hume has not stated it with the clearness which prevents misunderstanding. It is only to the latter point we can here attend.

When Hume asserts that experience gives no intimation of any *connection* between two events, but only of their invariable *conjunction*,—when he says that the mind cannot perceive a causal nexus, but only an invariableness of antecedence and sequence, he is contradicted, or seems to be, by the consciousness of his readers. They declare that, over and above the fact of sequence, there is always an intimation of *power* given in every causation, and this it is which distinguishes causal from casual sequence,—connection from mere conjunction. The fire burns paper because there is some power in the fire to effect this change. Mere antecedence, even if invariable, cannot be sufficient, or else day would be the cause of night, the flash of lightning would be the cause of the thunder-peal. Swallows fly close to the earth some little while before the rain falls; but no one supposes the flight of the swallows causes the fall of the rain. In every case of causation there must be an element of power—a capacity of producing the observed change—a nexus of some kind, over and above the mere juxtaposition of bodies. If diamond will cut glass, it has a power to do so; the sharpest knife is without this power.

So reason Hume's antagonists. Nor do I think they are finally answered by resolving the idea of power into mere invariableness of antecedent and sequent; for they may reply that the 'invariableness' itself is deduced from the idea of power: we believe the fire will invariably burn the paper because it has the power to do so, because there is a real nexus between fire and the combustion of

paper; only on such a belief can our expectation of the future resembling the past be securely founded.

The ordinary belief of mankind in the existence of something more than mere antecedence and consequence, is therefore a fact. This fact Hume and others omit. Because they cannot perceive the power, they declare that we have no belief in it. Hume insists upon the impossibility of our perceiving power—of our perceiving any necessary connection between two events. But, say those who oppose this theory, 'Although we cannot *perceive* the power, we are forced to *believe* in it; and this belief is not a matter of custom, but is given in the very facts of consciousness. We perceive that *some power* is at work producing effects; the *precise nature* of this power, indeed, we cannot perceive, because we never can know things *per se*. When a spark ignites gunpowder, we perceive *a* power in the spark to ignite gunpowder: *what* that power is, we know not; we only know its effects. But our ignorance is equally great of the gunpowder: *what* it is we know not; we only know its appearances to us. It might as well be said that we believe in the gunpowder from custom, (since we really know nothing of it *per se*,) as that we believe in the power of the spark to ignite gunpowder from custom, since we really know nothing of power *per se*. We know nothing *per se*.'

I have marshalled the arguments, with as much force as I could muster, into so small a field, in order to bring into appreciable distinctness the source of the opposition to Hume's theory on the part of many who have no doctrinal distrust towards it. Before attempting an elucidation of the difficulty, it will be needful to consider the grounds of our belief in causation. As it is a fact that all men believe in some power involved in every causal act, we have to ask, Is that belief well founded?

Two schools at once present themselves. The one (that of Hume) declares that the belief has no good grounds; it is a matter of custom. If I believe the sun will rise tomorrow, it is because it has always risen. If I believe that fire will burn in future, it is because it has always burned. From habit I expect the future will resemble the past: I have no proof of it.

The other school declares that this belief in causation 'is an intuitive conviction that the future will resemble the past.' This is the language of Reid and Stewart. Dr. Whewell would have us admit the belief as a fundamental idea—a necessary truth independent of and superior to all experience.

Both explanations we take to be very incompetent. Custom or habit can essentially have nothing whatever to do with it, because our belief is as strong from a single instance as from a thousand. 'When many uniform instances appear,' says Hume, 'and the same object is always followed by the same event, *we then begin to entertain* the notion of cause and connection. We then feel a new sentiment, to wit, *a customary connection* in the thought between one object and its usual attendant; and this sentiment is the original of that idea which we seek for.' This is manifestly wrong. A single instance of one billiard-ball moving another, suffices to originate the 'sentiment,' without further repetition. Nor is there more truth in the assertion that the belief depends on 'conviction of the future resembling the past;' this explanation assumes that the general idea precedes the particular idea. If we believe that similar effects will follow whenever the same causes are in operation —if we believe that fire will burn, or that the sun will rise tomorrow—we are simply *believing in our experience,* and nothing more. We cannot help believing in our experience; that is irresistible: but in this belief, the idea of either past or future does not enter. I do not believe that fire will burn because I believe that the future will resemble the past, but simply because my experience of fire is that it burns—that it has the power to burn. Take a simple illustration, trivial, if you will, but illustrative:—A child is presented with a bit of sugar: the sugar is white, of a certain shape, and is solid; his experience of the sugar is confined to these properties: he puts it in his mouth; it is sweet, pleasant: his experience is extended; the sugar he now believes (knows) to be sweet and pleasant, as well as white and solid.* Thus far experience is not transcended. Some days later, another piece of sugar is given him. Is it now necessary for him to have any 'intuitive conviction that the future will resemble the past'—any fundamental idea independent of experience—to make him believe that if he puts the sugar in his mouth it will taste sweet? Not in the least: he believes it is sweet, because he knows it is sweet—because his experience of

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* It will perhaps seem strange that we should select sweetness as an example of causation. We selected it for its simplicity. No one will deny that the taste of sweetness is as much an effect caused by the sugar as pain is an effect caused by fire. But people are apt to overlook that causation is the result of the properties of one body acting upon the properties of another. They would call sweetness a quality in sugar: but the motion of a billiard-ball they say is *caused* by another ball.

sugar is that it *is* sweet. By no effort could he divest himself of the idea of its sweetness, because sweetness forms an integral part of his idea of the sugar. So we may say of the sun's rising: it is part and parcel of our idea of the sun. So of one billiard-ball putting a second in motion: our experience of billiard-balls is that they put each other in motion.

Custom has primarily nothing to do with the belief. If we had only one experience of fire—if we saw it only once applied to a combustible substance—we should believe that it would burn, because our idea of fire would be the idea of a thing which burns. Custom has however, secondarily, some influence in correcting the tendency to attribute properties to things. Thus, a child sees a friend who gives him an apple. The next time the friend comes he is asked for an apple, because the idea of this friend is of a man who, amongst other properties, has that of giving apples. No apple is given, and this idea is destroyed. Similarly, when all our experience of things is confirmatory of our *first* experience, we may say that habit or custom induces us to attribute certain effects to certain causes. When our subsequent experience contradicts our first experience, we cease to attribute those effects to those causes which we first experienced; this is only saying that our subsequent experience has destroyed or altered the idea we formed at first.

Remark how much confusion is spread over this subject by the inconsiderate introduction of the word belief. It is incorrect to say that a man *believes* that fire will burn him if he puts his finger in it; he *knows* it. He will believe that it has burned some one else—he will believe in a *proposition* you make about fire, because belief is the assent to propositions: but to talk of his believing that sugar will be sweet, when he knows it *is* sweet, when he cannot think of it otherwise than as sweet; or that fire will burn when he knows it burns, is as improper as to say that he *believes* himself cold when he *is* cold.

Only from this improper use of the word belief could the theory of fundamental ideas, or of 'an intuitive conviction that the future will resemble the past,' have stood its ground for a moment. If the proposition 'Fire will burn paper' were put to any one, he would unquestionably believe it, because he has no other knowledge of the fire under those circumstances. The proposition is as evident to him as that two and two make four. Although, therefore, he may be said to believe in the proposition, 'Fire will burn paper,' he cannot properly be said to act upon belief when he attempts to light

paper: he acts upon his knowledge. Metaphysicians argue as if the belief in the immediate result of an action were a belief in some *implied proposition* about the course of nature. It is really a reliance upon experience; nothing more.

It is necessary to distinguish between belief in existence, and belief in propositions. It is inaccurate to say a man *believes* in his own existence, as if that were similar to his belief in a proposition. But though a man cannot believe in his own existence, simply because it is impossible for him to conceive himself as non-existent, he may believe that he will exist eternally, because that is a proposition, the converse of which is conceivable and maintainable.

The primordial act of all thinking whatever, is, as I have explained in the Introduction to this History, the making *present* to the mind of what is *absent* from the sense; and this, which connects all intellectual phenomena into one class, renders the accurate demarcation of them sometimes impossible, so insensibly does the one pass into the other. Thus when I say, 'I see it has rained,' because the wet streets make me infer that the wetness was caused by rain, my assertion is grounded on a mental re-presentation of the absent occurrence, precisely analogous to that which takes place when I *infer* the sweetness of the sugar before me, or *perceive* that the flower in Julia's hair is a rose, or *believe* that the paper she holds close to the candle will infallibly ignite if paper and flame come in contact. In each case the inference, perception, or belief, is the re-presentation of facts formerly present in my experience of rain, sugar, roses, and candles. Whenever I forget any of the attendant facts, *i. e.* fail to make them present, I can only form an incomplete conception of the thing about which I reason, or infer. Bad logic is imperfect re-presentation. In proportion to the complexity of a proposition will be the liability to error, because of the liability to suffer some of the attendant facts to drop out of sight. Thus the proposition 'Fire will burn paper' is so simple, and accordant with daily experience, that assent to it is instantaneous; but the proposition 'Human life may extend over two centuries' is one implying so many facts which cannot be made present to the mind, because not lying within familiar experience, that instead of assent it produces denial, or at least doubt, which is suspension of belief, which again is the confessed inability to make all the facts present to the mind. That 'two and two make four' is the immediate and irresistible conclusion of every educated man; nevertheless, this very man would pause before assenting to the

proposition 'Eight times three hundred and ninety-six, make three thousand one hundred and sixty-eight,' because he would have to make present to his mind the successive steps of the calculation, and this would demand an effort, great in proportion to his want of familiarity with calculations.

In spite of this identity of belief and perception, it is necessary for the perspicuity of discussion to discriminate the two, and I propose therefore to restrict the term belief to the assent to propositions, and demarcate it from those direct inferences which are made in the presence of objects and have reference to them. I would say, we believe in the proposition 'Fire burns,' but know the fact that the paper about to be thrust into flame will ignite. Such a discrimination of terms will be found useful in discussing causation. We shall thus see in what respect assent to a proposition, complex in its elements, differs from the 'practical belief' of mankind in particular facts—we shall separate the belief of the philosopher in the proposition 'Every effect must have a cause,' from the belief of the child that the fire, which yesterday burned paper, will burn it today. Both beliefs are grounded on and limited by experience; but the experience of the philosopher is distinguished from that of the child by its greater accumulation of analogous facts. The 'necessity' and 'universality' which, according to Kant and Dr. Whewell, distinguish the philosophical conception, and raise it above experience, will be considered hereafter. For the present it is enough if we have reduced belief in causation (or in power) to experience of a direct kind, *not* separable from any other intellectual act, but allied to all other acts in being the mental representation of phenomena formerly present in experience. And this will help us, perhaps, to reconcile the combatants who quarrel over the idea of 'power' in causation.

Thus while it will be admitted by the one party that between two events, named respectively cause and effect, no *nexus* is perceived by us, over and above the mere fact of antecedence and sequence; and that therefore Hume is right in saying—we only perceive this antecedence, and do not perceive the causal link; on the other hand it must be maintained, that between those two events there is a specific *relation*, a something which makes the one succeed the other, causing this particular effect rather than another; and this subtle link it is which is the nexus contended for; this relation it is which distinguishes a causal act from one of accidental sequence. There must be a peculiar relation, or property, existing between oxygen

and metals, otherwise metals never could be oxidized. The oxidation of iron is an effect like the ignition of paper; but it is an effect producible only through a specific relation or cause. To say that we cannot know this cause, cannot perceive this relation, and that antecedence and sequence are all that we can perceive, is only saying that we cannot penetrate beyond phenomena and their successions; but this is no more a ground for the denial of a causal nexus, than it is for the denial of an external world.

All things necessarily stand related to all other things: sometimes these relations are obtruded on our notice, because they pass from relations of coexistence into relations of succession, and we name them causes and effects; at other times they remain in the background of unremarked coexistence, and our unsolicited attention overlooks them; we do not then name them cause and effect. The carbonate of lime, which I see before me as marble, suggests to me in its inaction, no conception of power, or causation, because my attention is not solicited by any *successive* relations; yet, if I had witnessed the action of the carbonic acid on the lime, which originally *caused* the two substances to unite and form marble, the passage from one state to another would have suggested the idea of some power at work. It is clear that there must be relations existing between the carbonic acid and the lime, which *cause* the two to remain united, as we see them in marble. We do not see these relations—we do not therefore see the cause—but we know the cause must be in operation all the while, although, in consequence of no changes taking place, we are not solicited to observe the operation. Hence it is that only successive phenomena are named causal; and hence is it that Hume was right in saying that, *en dernière analyse,* invariableness of antecedence and sequence is all that experience tells us of causation; although he did not, I think, state his position clearly, nor discern its real basis.

This conception of causation, as the direct relation between any two phenomena, whether coexistent or successive, accords with the fact that what is called the effect is itself but the union of two causes—the oxygen and the metal co-operate to form an oxide; the group of facts which we designate as the antecedent, combines with the group of facts called the sequent; as when we say that 'Henry I. died of eating lampreys;' by which we mean, that in a certain condition of his organism the introduction of lampreys was the antecedent to a whole series of sequences terminating in death; although we are perfectly aware that the salmon was not the 'cause,' but only

one integer in the sum of causes. The difficulty in fixing upon a true cause is this very complexity of relations: only when we can be said to know all the elements of a group, can we isolate one to estimate its influence.

I have endeavoured to reconcile the two contending parties on this perplexing question, and for all further discussion must refer to John Mill's chapter in his *System of Logic*, where however there is a passage which seems to me quite contrary to the doctrine he upholds. I allude to his strictures on the dogma *cessante causâ cessat et effectus*. 'A *coup de soleil* gives a man a brain-fever: will the fever go off as soon as he is moved out of the sunshine? A sword is run through his body: must the sword remain in his body in order that he may continue dead?'* Surely this argument is tenable only by those who confound a cause with the whole group of conditions which precede, and the effect with the whole group of conditions which succeed; and is not tenable by those who hold that cause and effect are simply antecedent and sequent. The solar rays striking on the man's head produce a disturbance in the circulation, which in its turn becomes the antecedent to a congestion of the blood-vessels in the brain, which becomes a brain-fever; instead of one succession of cause and effect, we have here a series of such successions; and if we could analyze the various stages of the sunstroke, we should find that each effect did cease on the cessation of the cause; indeed, if an effect be nothing but the sequent of an antecedent—and not the product of some creative power in the cause—it must depend for its existence on the presence of the antecedent.

Hume's Theory of Causation set Kant speculating on the constituent elements of cognition; but before we follow out the development of Philosophy in that direction, it will be necessary to trace the further development of Locke's influence in other directions.

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* Vol. i. p. 413.

SIXTH EPOCH.

THE ORIGIN OF KNOWLEDGE REFERRED TO SENSATION BY THE CONFUSION OF THOUGHT WITH FEELING: THE SENSATIONAL SCHOOL.

CHAPTER I.

CONDILLAC.

§ I. Life of Condillac.

ETIENNE DE CONDILLAC was born at Grenoble, in 1715. His life was passed mainly in study, and was not varied by any of those incidents which give interest and romance to biography. He published his first work, *Essai sur l'Origine des Connoissances Humaines*, in 1746. Three years after, his *Traité des Systèmes*. His other works followed rapidly; and established for him such a reputation that he was appointed tutor to the Prince of Parma, for whose instruction he wrote the *Cours d'Etudes*. In 1768 the capricious doors of the Académie Française were opened to him; but once elected a member, he never after attended any of its sittings. He published his *Logique* in his old-age, and left behind him his *Langue des Calculs*. He died in 1780.

§ II. Condillac's System.

We have seen how Idealism and scepticism grew out of the doctrines respecting the origin of knowledge. We have now to see the growth of the 'Sensational School.'

The success which Locke met with in France is well known. For a whole century the countrymen of Descartes extolled the English philosopher, little suspecting how that philosopher would have disclaimed their homage, could he have witnessed it. Condillac is the acknowledged representative of Locke in France. When his first work, entitled *Essai sur l'Origine des Connoissances Humaines*, appeared he had no notion of simplifying Locke by reducing all

Knowledge to Sensation. He was a modest Lockeist, and laid down as the fundamental principle that 'sensations and the operations of the mind are the materials of all our knowledge—materials which reflection sets in action by seeking their combinations and relations.' (Chap. i. § 5.)

In 1754 appeared his celebrated work, the *Traité des Sensations*. In it he quits Locke's principle for that of Gassendi and Hobbes. 'The chief object of this work,' he says, 'is to show how all our knowledge *and all our faculties* are derived from the senses, or, to speak more accurately, from sensations.' The inclusion of 'our faculties,' as well as our ideas, in this sensuous origin is however due entirely to Condillac. Hobbes never thought of such a 'simplification.' The divergence from Locke is obvious: instead of the two sources of ideas, recognized in the *Essay on Human Understanding*, it assumes one source only—Sensation; instead of mind, with certain elementary faculties, it assumes one elementary faculty—that of Sensibility—out of which all the faculties are evolved by the action of external objects on the senses. Nor was this a mere slip of Condillac's pen: the error is radical; it constitutes the peculiarity of his system. Speaking of various philosophers, and quoting, with praise, the maxim attributed to Aristotle, that 'Nothing is in the intellect which was not previously in the senses,' he adds, 'Immediately after Aristotle comes Locke; for the other philosophers who have written on this subject are not worthy of mention. This Englishman has certainly thrown great light on the subject, but he has left some obscurity. . . . All the faculties of the soul appeared to him to be innate qualities, and he never suspected they might be derived from sensation itself.'

Certainly, Locke never suspected anything of the kind, and would loudly have repudiated it, had any one suggested such a simplification of the psychological problem. He might have asked Condillac, why is it that no Ape having the five senses of Man has ever yet been educated as a Man? and if faculties are nothing but sensations, why are the faculties of the Ape so remarkably inferior, when the senses, some of them at least, are so remarkably superior to those of Man? We find, on the one hand, animals having senses like those of man, but *not* having the faculties of man; we find, on the other hand, men deficient in certain senses—sight, hearing, taste, or smell—who, so far from being deficient in mental faculties, are remarkable for their high endowments: a striking example of which

is the case of Laura Bridgman born blind, deaf, and dumb. Nay, among men having all the senses in activity, we find the greatest disparities in mental faculty; and we do not find that the men whose senses are the most susceptible and active, are the men whose intellectual faculties are the most developed; which is strange, if the faculties are nothing but sensations. How does Condillac explain the familiar fact of Idiots being in full possession of their senses? When he makes his famous Statue grow into an Intelligence, by the gradual evolution of one sense after the other, it never occurs to him that he tacitly admits the presence of the very mind which is said to be evolved; since in the absence of that mind, the senses will not elevate the statue one inch above idiocy.

Had Condillac been surveying the animal series, and endeavouring to trace the gradual development of Sensibility throughout that series, he might have maintained, with some philosophical cogency, that the various faculties were the derivative products of sensation. But he had no such conception. He looked upon the mind as a *tabula rasa*, a blank page on which sensations wrote certain characters; and instead of regarding the mind in the light of an organism, the food of which was furnished by the senses, he regarded it as a simple granary, in which the grain, on entering, 'transformed itself' into bread, oven, and baker. He thought the senses created the faculties and were the faculties. He might as well have said that exercise creates the faculty of running. The child cannot run till he has exercised his limbs, but the exercise does not *give* him the limbs, it only calls them into action. Condillac is right in saying that we are not born with the mental faculties developed (a point to be touched upon hereafter), but he is wrong in saying that these faculties are only sensations. And when he endeavoured to construct the mind and its faculties out of *transformed sensations*, he never once suspected that the faculty of transformation—*that which* transforms—could not be itself a sensation. It is very easy to imagine transformed sensations; but the sensations do not, we presume, transform themselves. What is it that transforms them? The mind? Not so. The mind is the aggregate of our mental states, faculties, etc.; the mind is made up of 'transformed sensations,' and cannot therefore be the transforming power. We return to the charge, and demand, What is it which transforms? Condillac has no answer. All he can say is, what he says over and over again, that our faculties are transformed sensations. Hear him:—

'Locke distinguishes two sources of ideas, sense and reflection. It would be more exact to recognize but one; first, because reflection is in its principle nothing but sensation itself; secondly, because it is less a source of ideas than a canal through which they flow from sense.

'This inexactitude, slight as it may seem, has thrown much obscurity over his system. He contents himself with recognizing that the soul perceives, thinks, doubts, believes, reasons, wills, reflects; that we are convinced of the existence of these operations, because we find them in ourselves, and they contribute to the progress of our knowledge; but he did not perceive the necessity of discovering their origin and the principle of their generation,—he did not suspect that they might only be acquired habits; he seems to have regarded them as innate, and he says only that they may be perfected by exercise.'*

This is far enough from Locke,† who would have been amazed to hear that 'judgment, reflection, the passions, in a word, all the faculties of the mind are nothing but *sensation which transforms itself differently* (qui se transforme différemment).'

As it is curious to see how sensation transforms itself into these faculties, we will translate Condillac's account. 'If a multitude of sensations operate at the same time with the same degree of vivacity, or nearly so, man is then only an animal that feels; experience suffices to convince us that then the multitude of impressions takes away all activity from the mind. But let only one sensation subsist, or without entirely dismissing the others, let us only diminish their force; the mind is at once occupied more particularly with the sensation which preserves its vivacity, *and that sensation becomes attention*, without its being necessary for us to suppose *anything else in the mind*. If a new sensation acquire greater vivacity than the former, it will become in its turn attention. But the greater the force which the former had, the deeper the impression made on us, and the longer it is preserved. Experience proves this. Our capacity of sensation is therefore divided into the sensation we have

* *Extrait raisonné du Traité des Sensations*: *Œuvres de Condillac* (1803), iv. 13.

† It would be idle to refute here the vulgar notion that Condillac perfected Locke's principles; or, as M. Cousin absurdly says, that Locke's *Essay* was the rough sketch (*ébauche*) of which the *Traité des Sensations* is the perfected picture;—such a notion can be entertained only by those who blindly accept traditionary judgments. The brief exposition we shall give of Condillac is a sufficient answer to all such assertions.

had, and the sensation which we now have; we perceive them both at once, but we perceive them differently: the one seems as past, the other as present. The name of *sensation* designates the impression actually made upon our senses; and it takes that of *memory* when it presents itself to us as a sensation which has formerly been felt. Memory therefore is only the transformed sensation. When there is double attention, there is comparison; for to be attentive to two ideas or to compare them, is the same thing. But we cannot compare them without perceiving some difference or some resemblance between them: to perceive such relations is *to judge*. The acts of comparing and judging are therefore only attention; it is thus that sensation becomes successively attention, comparison, judgment.'

The other faculties are explained in a similar way, but we need quote no more. That such a system should ever have attained the favour it did, is a striking example of the facility with which men may be misled by an artful use of words.

Condillac said that science is only a well-constructed language (*une langue bien faite*); so much did he rely upon precision in words. Nor is this inexplicable in a man who fancied he had reduced the analysis of mind to its simplest elements by merely naming them differently. It is however as absurd to call ideas sensations, because the ideas were originated by sensations, as it would be to call reasoning observation, because reasoning is founded on observation. The only excuse for the error is in the common, but false, supposition that ideas are faint impressions. They are not impressions at all. Condillac says that an idea is a remembered sensation, and this remembrance is only a lesser degree of vivacity in the sensation. We answer that the idea is nothing of the kind; so far from being the sensation in a lesser degree, it is not the sensation at all; it is altogether different from the sensation. Although every man who has experienced toothache, can have a very distinct idea of it (in other words, he can think of, and talk of toothache), we defy him to detect in his idea any repetition of the *sensation*. Nor is this wonderful; sensation is the product of a distinct part of the nervous system, the senses; ideas are the product of another distinct part of the nervous system, the cerebrum: sensation is *feeling*, thought is *thinking*. To suppose feeling and thinking are the same (although both may come under the term feeling, by giving the word some new general signification) is an absurdity reserved for the Sensational School, the last and not

the least illustrious of whom, M. Destutt de Tracy, consolidated it into an aphorism: *penser c'est sentir*.

The ambiguities of language have in this case been assisted by the nature of our sensations. Thus all our visual ideas, inasmuch as they assume shape, do *seem* like faint sensations; the reason is that although it is a very different thing to *look* at the sun and to *think* of it, yet in thinking, our idea corresponds in some measure with our sensation: the idea is of a round, yellow, luminous body, and is not improperly called an *image* of the sun. If it is an image of the sun, we easily conclude that it is a faint copy of our sensation. But in the case of other senses, there is no difficulty in detecting the error. When we say that we can *recall the sensation* of hunger, we verbally confound our power of thinking a thing, with our power of feeling it. There is in truth a generic distinction between Thought and Sensation, which it is fatal to overlook; nor could it have been overlooked but for the introduction and adoption of that much-abused word 'idea,' instead of thought.

I do not believe we can recover *any* sensation at all, but only the ideal effect of the sensation. Mr. Bain, who of all psychologists, as it appears to me, has approached nearest to the truth, here remarks, that the 'exact tone of feeling, the precise inward sensation due to a state of hunger, is almost irrecoverable and unimaginable in a state of comfortable repletion.' I believe it to be utterly irrecoverable. 'But,' he adds, 'the uneasy movements, the fretful tones, the language of complaint, are all easy to recall; they belong to the more intellectual part of the system; and by these we can recover some portion of the total fact, which is also just about as much as we can communicate to a second person. The digestive state for the time being rules the tone of sensation so effectually that we cannot by any effort restore the currents due to an entirely opposite state; we can only recover the more revivable accompaniments.'* The reason of this I take to be simply the impossibility of displacing a sensation (*e. g.* that of repletion) by an idea. The sensation of hunger was due to a peculiar stimulus of the nervous system; so long as that stimulus was present, the sensation was present; when another stimulus replaced it, another sensation succeeded, and in the presence of that stimulus no other sensation is recoverable. The 'revivable accompaniments' were not sensations, but the *sequences* of sensations, ideal elements. When Mr. Bain contrasts the sense of

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* *The Senses and the Intellect*, p. 337.

sight with the sense of hunger, and says 'that we can recover a picture or vision of fancy almost as exactly as we saw it, though not so strongly,' and thinks that this gives to the sense of sight its 'intellectual character,' he appears to me to overlook the generic distinction between Sensation and Thought, a distinction which Condillac and his school systematically set aside. 'We can repossess ourselves,' he adds, 'of the exact scene as it lay to the eye; in *fact the sensation itself is the most retainable part of the whole.*' I cannot but think that, if Mr. Bain will reconsider this statement, he will admit that the sensation itself is precisely the part which is *not* retainable, not recoverable; for although the image of the landscape beheld in memory is like the actual scene which we gazed upon—or, in more accurate language, although we are similarly affected by the remembrance as by the original stimulus,—yet a psychologist of Mr. Bain's rank does not need to be told that the landscape in perception is constituted by a variety of intellectual inferences,—all its relations of space, form, solidity, etc., being purely intellectual elements, and these *only* are the elements present in the remembrance, the actual *sensations* not being present at all. What therefore is recoverable, is the purely intellectual part of the whole; what is irrecoverable, the sensational; precisely as in the case of hunger: we can recall the effects of hunger, even when quietly digesting dinner, but we cannot recall the sensation of hunger.

The point in dispute is so important, and is so intimately bound up with the whole doctrine of the Sensational School, forming indeed the battle-ground of all psychological doctrine, that we must consider it with more than a passing attention. The confusion of Sensation with Ideation, or Thought, is Condillac's systematic error; but it is an error from which few, if any writers, even of the spiritualist schools, have been free. Explicitly, or implicitly, these two phenomena have been regarded as two aspects of the same thing. The rigorous demarcation of Sensation as one process, from Ideation as another process,—each dependent on its separate nervous centre,—will be found in no psychological treatise. Nevertheless Comparative Anatomy has succeeded in demonstrating the independence of the organs of Sense, and the Brain-proper; although no one has yet succeeded in detecting the true relations which connect these independent centres, and make them act together. We know that the brain is as much an *addition* to the organs of Sense as these organs are additions to the nervous system of the

simpler animals. Low down in the animal scale we can detect no trace at all of a nervous system; ascending a few steps, we detect a simple ganglion with its prolongations; ascending higher, we detect a more complex arrangement of ganglia, and rudimentary organs of Sense; ascending still higher and higher, we detect more complex organs of Sense, and a rudimentary Brain; till at last we arrive at man, with his complex organs and his complex Brain. But so independent is the Brain, that even in the human species cases occur of 'anencephalous monsters,' that is to say, children born without any Brain whatever; and these children breathe, suck, cry, and struggle, like other children.

Further, it is ascertained that the function of this Brain (or Cerebrum) is Thought—or, as James Mill, with a nice sense of utility, proposed to call it, Ideation. Granting this, we grant that the functions Sensation and Ideation are as independent as the organs of which they are the functions; and although Ideation is organically connected with Sensation, yet not more so than muscular motion is connected with Sensation. Neither the anatomical nor the psychological connections of the two have been accurately discriminated, but the broad fact of their independence suffices for my present argument; which is merely to establish the position that the organs of Sense are competent to Sensation, without the addition of a Brain; and that the Brain, although constantly set into action by the organs of Sense, is in itself a separate centre, and the seat of specific actions.*

It is customary to speak of the organs of Sense as if they were simple organs; we must not therefore innovate in this matter, although we find it needful to remind the reader that each special sense is really the function of a complex apparatus of organs. The apparatus of Sight, for example, may be separated into at least three parts:—1st, for the reception of impressions of light; 2nd, for the transmission of those impressions; 3rd, for the sensation. Of these the last need only here be specially considered, and may be called the *Sensational Centre*.† In this centre the external sti-

* See this point illustrated in detail by Unzer and Prochaska, in their treatises translated for the Ray Society by Dr. Laycock.

† I would call it sensory ganglion, if that did not presuppose the existence of a distinct ganglion, anatomically separable in the higher animals, as it is in those lower animals which have nothing but sensory ganglia. At present, however, science does not warrant such a statement otherwise than as an hypothesis. Besides, I include the spinal chord among the general Sensational Centres. Compare Prochaska, p. 430.

mulus becomes a sensation; from this centre the sensation is generally (not always) propagated to the cerebrum, which in turn may propagate the influence to the centre of muscular motion, or elsewhere.

Every sense, whether it be one of the five special senses, or of the so-called 'organic senses' (such as those of the alimentary canal or of muscular activity), has its own special centre, or *sensorium*; but there seems to be no ground for assuming, with Unzer and Prochaska, the existence of any one general *sensorium*, to which these all converge; and I shall speak therefore of the *Sensational Centres* as the seats of sensations derived from the stimuli which act on the organs of sense. Considered as Sensational Centres, they are perfectly independent of the Brain; they may and do act without implicating the Brain, for they will act when the Brain is absent: a bird deprived of its cerebrum manifests unequivocal symptoms of being sensitive to light, sound, etc. But in the normal state of the organism these centres are intimately connected with the Brain; and the stimuli which affect them directly, indirectly affect the Brain. Light, impinging on the retina, determines a change in the optic Sensational Centre; this change is usually propagated to the cerebrum; and as the first change was a sensation, so is the second an idea; this idea may excite other ideas, or it may be so faint in its influence as to be almost immediately absorbed, and then we are said to be 'scarcely conscious' of the sensation—meaning that we thought very little about it: an example of which is the little attention we pay to the clock striking when we are engaged in study, if the fact is indifferent to us; we hear it, but think not of it the next moment; if on the other hand the striking of the clock is not indifferent to us, the various thoughts which it awakens make us eminently 'conscious of the sensation.' In the heat of battle, a sword passes through a man's arm, and nevertheless the wound is followed by no pain or 'consciousness;' the stimulus which under ordinary circumstances would have been propagated from a Sensational Centre, and thence radiating to the cerebrum, would have roused up manifold ideas, namely, of consequences, what was necessary to be done, etc., is prevented from so radiating, and is not carried beyond the Sensational Centre.

Not only can we have sensations without being conscious of them —*i. e.* without thinking about them; we can also think with perfect freedom when all the Sensational Centres (except those of organic life) are unaffected by any stimulus, *i. e.* when we have no sensa-

tions. We do so when awake in bed during the stillness of night: the senses are in repose, the Brain is active.

Thus is the independence of Ideation and Sensation proved psychologically and anatomically; and with this proof we destroy the basis of Condillac's doctrine. But even on purely metaphysical grounds we may reject his theory of the origin of knowledge. It rests on two positions;—the first is the reduction of all knowledge to sensation; the second is the dogma of our faculties not being innate. The first is the doctrine of Gassendi and Hobbes. It is thus stated by Diderot, one of Condillac's most celebrated pupils:—'Every idea must necessarily, when brought to its state of ultimate decomposition, resolve itself into *a sensible* representation or picture; and since everything *in* our understanding has been introduced there by the channel of sensation, whatever proceeds *out* of the understanding is either chimerical or must be able, in returning by the same road, to re-establish itself according to its sensible archetype. Hence an important rule in philosophy, That every expression which cannot find an external and a sensible object to which it can thus establish its affinity, is destitute of signification.'*

Those who maintain sensuous experience to be the basis of all knowledge, will of course assent to the position that every one of our ideas can be decomposed into sensuous elements; but ideas themselves are not sensations, they are formed from sensations, and are not sensible pictures. The least experience is sufficient to convince us that we have many ideas which cannot be reduced to any *sensible picture* whatever; or, to prevent any of the ambiguity which belongs to the word 'idea,' let us rather say we have many thoughts which cannot be reduced to any sensible picture. We can think of a sound without any power of forming a picture of sound; we can think of virtue or goodness, of patriotism or scoundrelism, without being able to form mental pictures of these ideas.

Now for the second point: Condillac, we believe, was the first to catch a glimpse of the important truth that our *faculties* are not innate—are not even connate; but he bungled in attempting to trace the genesis of these faculties. That men are not born with the powers of reasoning, remembering, imagining, is a proposition which will meet with very little credit at first. A little experience and reflection however show us that as the child certainly cannot reason, remember, or imagine, these being faculties subsequently

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* Quoted by Dugald Stewart, *Philosophical Essays*, p. 166.

and slowly developed, we must conclude that the mental faculties are only *potentially* in the new-born child. The baby can no more reason than he can talk. He *learns* to do both; and, before he can learn them, the powers of his mind no less than the muscles of his vocal organs must grow, be developed, and strengthened by exercise. Man is no more born with reason than an acorn is born an oak. The grown man has reason, as every oak has branches and foliage. But the infant and the acorn, though they contain that within them which, under fitting circumstances, will be developed into reason in the one, and foliage in the other, cannot be said to have as yet either reason or foliage.

This is an important discovery, and yet one which is apparently obvious, and obtruded upon our experience by the daily observation of children. Condillac has the merit of having first seen it; but he saw it very imperfectly, and failed altogether to make any good use of it. As an example: He who told us that our faculties were not innate, but were 'acquired habits,' tells us, when he comes to the genesis of those faculties, that they spring into existence at once—are born full-grown—the acorn suddenly leaps into an oak. Thus his famous statue has Memory, Judgment, Desire, etc., as soon as it has Sensations. This is enough to show that if Condillac discovered an important fact, he only stumbled over it, and knew not its significance.* Let us hope that, if England is to produce any new system of Psychology, this most important point will not be overlooked: the growth and development of our faculties is as much a part of Psychology, as the growth and development of our organs is a part of Biology.†

Condillac has made but a poor figure in our pages; let us hasten to add, that although his fundamental positions are erroneous, his works display considerable merits both in manner and matter. Many valuable remarks, and some good analyses, may be found in his writings; and the style is admirably clear. He departed so widely from Locke, that it seems strange he should ever have been considered as a disciple. But we have express testimony to the fact that he was Locke's disciple; and if we consider for a moment the great stress which Locke always placed upon the sensuous origin

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* The only person who, to our knowledge, has made any use of this fact is Dr. Beneke, who has made it the basis of his whole philosophy. See his *Neue Psychologie*, also the *Lehrbuch der Psychologie* (Berlin, 1845).

† Since this was written Mr. Herbert Spencer has expounded the development of the faculties in his very remarkable *Principles of Psychology* (1855).

of our knowledge,—that being the point he wished to bring prominently forward, because his precursors had neglected it,—we shall easily conceive how Condillac might have been more impressed with that part of the system than with the other, which Locke had rather indicated than developed. Moreover it was Locke's object to prove the mind to be a *tabula rasa,* in order to disprove innate ideas. This once being granted, it was easy to fall into the error of Condillac's 'simplification.'

Condillac was clear, but much of his clearness was owing to his shallowness; much of the simplicity was owing to meagreness. He tried to construct Psychology upon no firmer basis than that adopted by the metaphysicians whom he opposed. Analysis of mental operations and merely verbal distinctions had been powerless in the hands of his precursors, nor were they powerful in his. In many subordinate matters he improved on them; some of his analyses were better; many of his verbal distinctions were useful; but he had no true psychological Method, and could found no desirable system. The idea of connecting Psychology with Biology had not yet been distinctly conceived. Although the brain was universally held to be the 'organ' of the mind, the mind was, by the strangest of oversights, *not* regarded as the function of that organ;* consequently no one thought of connecting the study of the mind with the study of the nervous system; no one thought of a physiological basis as indispensable to psychological science. We shall see hereafter what attempts have been made in this direction. The first step may be said to have been taken by Hartley.

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* I may here enter a brief caveat against the conclusion that I hold the 'mind to be the function of the brain.' This is no place to argue so wide a question; and I content myself with saying that in the crude form in which that opinion is frequently presented I do not agree. Ideation I hold to be one function of the brain; but Mind is something more general than this special function of Ideation; and the brain has other functions besides Ideation, other functions than any usually called mental.

CHAPTER II.

HARTLEY.

§ I. Life of Hartley.

DAVID HARTLEY, the son of a Yorkshire clergyman, was born on the 30th of August, 1705. He went to Cambridge at fifteen, and became a Fellow of Jesus College. Originally destined for the Church, he had scruples about signing the Thirty-nine Articles, and gave up the Church for Medicine, which he subsequently practised with great success.

When only twenty-five years of age he conceived the design and commenced the execution of his celebrated *Observations on Man, his Frame, his Duty, and his Expectations,* led thereto, as he tells us in the Preface, by hearing that 'the Rev. Mr. Gay had asserted the possibility of deducing all our intellectual pleasures and pains from association.' Mr. Gay published his views in a dissertation prefixed to Law's translation of King *On the Origin of Evil;* but although Hartley acknowledges having derived the suggestion from Gay, it is clear to all readers of his work that he had thoroughly mastered, and made his own, the principle of Association as the primary law of intellectual combination. Hartley did not publish his *Observations* till 1748, eighteen years after the scheme was first laid. The year before, according to Dr. Parr, he published a small treatise as a precursor to this work. 'You will be astonished to hear,' Dr. Parr writes to Dugald Stewart,* 'that in this book, instead of the Doctrine of Necessity, Hartley openly declares for the indifference of the will, as maintained by Archbishop King.' And the reader will be astonished to hear that Hartley does no such thing! Dugald Stewart, who had not seen the work referred to, remarks that 'it is curious that, in the course of a year, Hartley's opinions on so very essential a point should have undergone a complete change;' still more curious, however, that Dr. Parr should have read the work and discovered in it such a mare's-nest. The tract in question is reprinted in the volume of *Metaphysical Tracts*

* Stewart's *Dissertation*, part ii. p. 355 of Hamilton's edition.

by English Philosophers of the Eighteenth Century. Prepared for the Press by the late Rev. Samuel Parr, D.D. London, 1837,—a volume precious to metaphysical students, because it contains Collier's *Clavis Universalis* and *Specimen of True Philosophy*. If the reader will turn to the third of these tracts, *Conjecturæ quædam de Sensu, Motu, et Idearum Generatione,* without date, he will find that it is nothing more nor less than an abstract, in Latin, of the first part of Hartley's *Observations;* and that the question of Free-will is nowhere opened in it. I can only suppose that Dr. Parr, unacquainted with physiological speculations, was misled by the admirable discussion of automatic and voluntary actions (pp. 31–35), into the notion that Hartley there espoused the doctrine of free-will; but I am surprised that Sir W. Hamilton should have allowed the error to pass uncorrected in his edition of Stewart's Dissertation.

Hartley died on the 25th of August, 1757, aged fifty-two, and left a name so distinguished for piety and goodness that it in a great measure shielded his doctrines from the reprobation they have often incurred when promulgated by others.

§ II. Hartley's System.

Combining a suggestion thrown out by Newton at the end of his *Principia,* and in the questions annexed to his *Optics,* respecting vibrations of an ether as the cause of sensation, with the doctrine of Locke respecting Association of Ideas, Hartley produced a system of Psychology, which is historically curious as the first attempt to explain psychological phenomena on physiological principles. If not worth much as a contribution to Philosophy, it is very noticeable as an effort to connect intellectual with physical phenomena; and, however subsequent writers may have ridiculed, not without excuse, the vibrations and vibratiuncles which Hartley substituted for the old metaphysical conceptions, it is certain that his attempt to explain the phenomena physiologically has very much influenced the thoughts of succeeding speculators.

'Man,' he says, 'consists of two parts, body and mind.' Does he mean by this to proclaim the existence of a distinct immaterial entity superadded to the body? According to the terms of his definition, on the first page of his work this seems to be his intention; for he defines it as 'that substance, agent, principle, etc., to which we refer the sensations, ideas, pleasures, pains, and voluntary motions.' Yet the whole system of vibrations seems to imply

the contrary; and, at the close of the first part of his work, he declares that he holds himself aloof from the question altogether. He will not deny the immateriality of mind: 'On the contrary, I see clearly, and acknowledge readily, that matter and motion, however subtly divided, 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.' He thinks, with Locke, that it is quite possible the Creator should have endowed matter with sensation; but he will not undertake to affirm it as a truth. '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.'* A more rigorous logic would have forced him into a more decided opinion; for this question of the soul's immateriality is one vitally affecting the system of vibrations; and his adversaries have had little difficulty in showing the insufficiency of 'vibrations' to explain the phenomena of an immaterial mind. Between the immaterial principle and these material vibrations, there is an impassable gulf: let the ether vibrate never so rhythmically, it always remains 'vibrating ether,' it cannot became 'sensation,' 'thought;' nor does Hartley bridge over the gulf by the assumption of an 'infinitesimal elementary body intermediate between the soul and the gross body,' to which, and from which, the vibrations of the nerves are communicated; the radical difficulty remains the same.

It may be objected, perhaps, that those who point out the defect in Hartley's hypothesis are themselves open to a similar charge, since they assume an immaterial principle to be affected by a material change, and assume the mind to be in connection with the body, following its alterations. But there is this difference between them and Hartley: they do not pretend to explain how mind is affected by body, he does. They accept, as an ultimate fact, what he attempts to elucidate; and it is his elucidation which they refuse to acknowledge.

And we must agree with them in rejecting the hypothesis which Hartley proposes; for it is not only incompetent to explain the phenomena, but it is also one of those ingenuities incapable of really serving the purpose of a good hypothesis, because in itself wholly incapable of Verification.

His first proposition is that 'The white medullary substance of the

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* Compare also Scholium to Prop. 5 (vol. i. p. 33), and *Conjecturæ quædam de Sensu*, etc., p. 41.

brain, spinal marrow, and the nerves proceeding from them, is the immediate instrument of sensation and motion.' Modern physiologists maintain precisely the reverse of this, declaring the *grey* matter to be the specific seat of sensation and intelligence. I may say, in passing, that both these positions seem to me erroneous in their exclusiveness; and that the white as well as the grey substance must be present, just as the zinc and copper plates must both be present in the galvanic battery.

Hartley continues: '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—or, as one may say, infinitesimal—medullary particles. These Vibrations are motions backwards and forwards, of the same kind as the oscillation 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. For that the nerves themselves should vibrate like musical strings is highly absurd.'

It appears from a passage in the *Contemplation de la Nature* of the Genevese naturalist, Charles Bonnet, who published, almost contemporaneously with Hartley, a doctrine almost indistinguishable from Hartley's, that certain physiologists had already entertained the idea of sensation being the result of a nervous oscillation. 'Ils vouloient faire osciller les nerfs pour rendre raison des sensations; et les nerfs ne peuvent pas osciller. Ils sont mous, et nullement élastiques.'* Not the nerves, but the elastic ether which penetrates the nerves, is the seat of these oscillations, according to Hartley and Bonnet.

The greatest defect of this hypothesis is that it explains nothing, while seeming to explain everything. Sensation remains as mysterious as before. If we call sensations by the new name of vibrations, we have done nothing but change the name; and if we say sensations *are* vibrations, or are produced by them, then the onus of proof rests on our shoulders.

While acknowledging the defect of Hartley's system, let us not forget its excellence. If the doctrine of Association was not first applied by him, it was by him first made a physiologico-psychological basis. He not only applied it to the explanation of mental phenomena; he applied it, and with great ingenuity, to those phy-

* Partie vii. ch. i.

siological phenomena which still interest and perplex philosophers, namely the voluntary and involuntary actions. His twenty-first proposition, and the elucidations which follow, deserve to be read, even in the present day; and the following passage from the abstract published in Parr's *Tracts,* is, in its pregnant brevity, worth quoting here. 'Discentes pulsare instrumenta musica, primo movent digitos actione voluntariâ, connectentes interea Ideas, imperiaque Animæ, hos motus lentè excitantia, cum aspectu characterum musicorum. Continuato hoc processu, accedunt indies, propius propiusque ad se invicem, motus digitorum, et impressiones characterum, et tandem, Ideis et imperiis Animæ in infinitum quasi diminutis, coalescunt. Fidicen igitur peritus chordas digitis percurrit citissimè, et ordine justo, ex mero aspectu characterum musicorum, *animo interim alienis cognitationibus intento;* atque proinde characteres musici idem illi præstant officium, ac Sensationes impressæ recens natis, in motibus eorum automaticis. Migrant itaque ope Associationis tam Motus voluntarii in automaticos, quam automatici in voluntarios.'*

So little dependent is the psychological doctrine of Association on the physiological doctrine of Vibrations, that Priestley, in his *Abridgment of Hartley,* omits the latter hypothesis altogether. The principle of Association passed into the Scotch school; and Hartley thus historically forms the transition to Reid and his followers, who studiously avoided anything like a physiological explation of mental phenomena. Before passing to Reid, however, it will be well to glance at Darwin.

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* *Conjecturæ*, p. 34.

CHAPTER III.

DARWIN.

ALTHOUGH even more neglected than Hartley by the present generation, Darwin, once so celebrated, deserves mention here as one of the psychologists who aimed at establishing the physiological basis of mental phenomena.

Erasmus Darwin was born at Elton, near Newark, on the 12th December, 1731. After studying at St. John's College, Cambridge, and taking his degree of Doctor of Medicine at Edinburgh, he established himself as a physician in Lichfield, married twice, had three sons, and died in the seventieth year of his age, 18th April, 1802. As a poet, his *Botanic Garden* (1781) by its tawdry splendour gained him a tawdry reputation; as a philosopher his *Zoonomia; or, Laws of Organic Life,* (2 vols. 4to, 1794–6,) gained him a reputation equally noisy and fleeting.

Although couched in different language, Darwin's theory is substantially the same as Hartley's; instead of 'vibrations' he substitutes 'sensorial motions.' By the sensorium Darwin means 'not only the medullary part of the brain, spinal marrow, nerves, organs of sense, and of the muscles; but also at the same time that living principle, or spirit of animation, which resides throughout the body without being cognizable to our senses, except by its effects.' The changes which occasionally take place in the sensorium, as during the exertions of volition, or the sensations of pleasure or pain, are termed *sensorial motions.**

The medullary substance, he thinks, passes along the nerves and mingles with the muscular fibres. The 'organs of sense consist in like manner of moving fibres enveloped in the medullary substance.' The word *idea* has various meanings, he says, and to give it precision he defines it as 'a contraction or motion, or configuration of the fibres which constitute the immediate organ of sense. Synonymous with the word *idea* we shall sometimes use the words *sensual motion,* in contradistinction to *muscular motion.*'

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* *Zoonomia*, vol. i. p. 10.

He then undertakes to prove the existence of these sensual motions, and deduces from this proof the fact that as we advance in life all the parts of our bodies become rigid, and are consequently less susceptible of new habits of motion, though they retain those already established. Hence only the young can learn; hence the aged forget the events of yesterday and remember those of infancy.*

'If our recollection, or imagination, be not a repetition of animal movements, I ask, in my turn, What is it? You tell me it consists of images or pictures of things. Where is this extensive canvas hung up? or where the numerous receptacles in which these are deposited? or to what else in the animal system have they any similitude? That pleasing picture of objects, represented in miniature on the retina of the eye, seems to have given rise to this illusive oratory! It was forgot that this representation *belongs rather to the laws of light than to those of life;* and may with equal elegance be seen in the camera obscura as in the eye; and that the picture vanishes for ever when the object is withdrawn.'†

Had Darwin left us only the passage just cited, we should have credited him with a profounder insight into Psychology than any of his contemporaries, and the majority of his successors, exhibit; and although the perusal of *Zoonomia* must convince every one that Darwin's system is built up of absurd hypotheses, Darwin deserves a place in history for that one admirable conception of psychology as subordinate to the laws of life. So little has this conception been appreciated, that not only are systems of Psychology constructed in serene indifference to Physiology, but many of the questions agitated in mental Physiology are hopelessly entangled because men will not, or cannot, discriminate between problems of Physics and problems of Physiology; between phenomena regulated by laws of inorganic matter, and phenomena regulated by laws of organic matter. Thus the questions, Why with two eyes do we see objects *single?* and, Why do we not see objects *inverted,* since their images are inverted on the retina? have puzzled thousands; and not one of the attempted solutions has recognized the important fact that the problems are *psychological,* not optical nor anatomical, consequently cannot be settled by optics or anatomy; angles of incidence, and decussation of optic nerves, have nothing

* *Zoonomia*, vol. i. p. 27.

† *Ibid.*, p. 29. In Bain's *Senses and the Intellect*, p. 60 *sq.*, the reader will find the old theory of a *sensorium*, or chamber of images, which Darwin here pushes aside, satisfactorily refuted from the physiological point of view.

to do with the phenomena the moment after the Sensational Centre has been affected. We might as well attempt to deduce the assimilation of sugar from the angles of its crystals, or from the sand-like disposition of its grains, as to deduce the perception of an object from the laws of optics: the crystals and grains of sugar must first be *destroyed*, and the sugar made soluble, before it can be assimilated; the retinal images must, in like manner, first be transformed in the Sensational Centre before they can, through the sensational centre, affect the cerebrum.

That this is no gratuitous hypothesis of mine, but expresses the actual process of perception, in as far as that process has been ascertained, may perhaps be made clear from the following considerations. When I say that the perception of a visual object is a psychological act, not in any way explicable by the laws of optics, or by any investigation of the anatomical structure of the optic apparatus, I ground that assertion on certain authoritative facts; for example, I take up the vexed question of our perceiving an object as single, although two images are formed on the two retinas; and instead of endeavouring to explain it by delicate anatomy of the retina, or the decussating fibres of the optic nerves, I at once remove it from that circle of discussion by classing it with phenomena precisely analogous. We see objects single with two eyes; true, but we also hear sounds as single with two ears, we smell odours as single with two nostrils, we feel objects as single with five fingers. How is it that no physiologist has reflected on the bearing of these facts? If the ordinary explanations of optical perception are correct, why do not auditory and olfactory nerves decussate?—Why do not the waves of sound affect similar points of the tympanum—and so the whole mystery be cleared up? No sooner is attention called to the fact of single hearing and single smelling, with two auditory and two olfactory nerves, than we at once cease to regard single vision with two optic nerves as anything special, and we try if a psychological explanation will not avail. I believe the explanation to be very simple. *We cannot have two precisely similar sensations at precisely the same instant; the simultaneousness of the two sensations renders them indistinguishable.* Two sounds of precisely the same pitch and intensity, succeeding each other by an *appreciable* interval, will be heard as two sounds; but if they succeed each other so rapidly that the interval is inappreciable, no distinction will be felt, and the two will be heard as one, because heard simultaneously. As I am forced to be

very brief here, the reader will not expect any development of this theory, but will pass with me to the consideration of other psychological aspects of perception.

The fact of our being able to see an image reflected on the retina of an animal, and of our being able to explain on optical principles the formation of that image, has very much misled physiologists in their efforts to comprehend sensation; they have naturally imagined that in vision we see the retinal image; whereas, unless I am altogether mistaken, we see nothing of the kind—we are affected *by* that retinal image, as in hearing we are affected by a wave of air, but do not perceive the wave; or as in smelling we are affected by the action of volatile substances on the olfactory nerve, but do not perceive the substances. We only perceive the changes effected in us by these agents.

The various Sensational Centres (see p. 502) are *variously* affected by the *same* stimuli: electricity giving to the gustatory nerve the stimulus of savorous bodies, to the auditory nerve the stimulus of sonorous vibrations, to the optic nerve the stimulus of luminous bodies, to the tactile nerves the stimulus of touch. Pressure on the eye causes luminous spots to be seen; we seem to see fire-flies. The pressure of over-distended blood-vessels produces spectral illusions, and we *see* daggers in the air as vividly as any at our sides. Unhappy students well know the 'singing in the ears' produced by over-study. Nor is this all: narcotics introduced into the blood excite in each Sensational Centre the specific sensation normally excited by its external stimuli; giving the appearance of luminous spots to the eyes, of singing in the ears to the auditory nerves, and of 'creeping sensations' to the nerves of touch.

The reason of this is that each Sensational Centre has its specific manner of being affected, no matter what the specific nature of the thing affecting it. While only certain things affect it sensationally, all those which *do* affect it, do so in a specific manner. Light, for instance, affects the optic centre, but produces no appreciable effect on the auditory, gustatory, or tactile centres; nevertheless the optic centre may be affected by pressure, by narcotics, or by electricity, precisely in the same way as by light. The vibrations of a tuning-fork, which affect the auditory centre as sound, affect the tactile centre as 'tickling,' not 'sound.'

From these indubitable facts it is not difficult to elicit a conclusion, namely, that sensation depends on the Sensational Centre and not on the external stimulus, that stimulus being only the cause of

the sensational change. Whether the retina be directly affected by rays of light issuing from an object, or the optic centre be affected by the pressure of congested blood-vessels, in each case we *see*, in each case the optic centre is affected in that specific manner in which alone it is capable of being affected. Consequently inasmuch as the visual sensation depends on the optic centre being affected, and does *not* depend on the formation of an image on the retina, we have no alternative but to admit that the *retinal affection is transformed by the Sensational Centre*, and there the *impression* first becomes a *sensation*.

It may be added as confirmation of the foregoing doctrine respecting the centre as the seat of sensation, that Müller has cited examples of luminous spectra being excited by internal causes after the complete destruction of the retina, and 'Luicke relates the case of a patient who after the extirpation of the eye for fungoid disease perceived all kinds of luminous appearances independently of external objects.'*

When therefore it is asked, Why do we see objects *erect*, when they throw *inverted* images on the retina? the answer is, Because we do not see the retinal image at all; we see, or are affected by, the object; and our perception of the erectness of that object does not depend on vision, but on our conceptions of space and the relations of space—which are not given in the visual sensation, but are ideal conceptions: conceptions which are acquired in a complicated series of inferences, according to most philosophers; which are 'forms of thought,' according to Kant; but which are by no school held to be immediate elements of sensation.

We thus return to the position that in every act of consciousness the impression on the nerve becomes transformed into a sensation only in the Sensational Centre; and the old theories of 'eidola,' 'images,' 'impressions,' are seen to be untenable. Just as the crystals of sugar have to be decomposed, and the sugar transformed into glucose, the glucose transformed into lactic acid, before sugar can be assimilable in the organism, so have the retinal images to be decomposed in the optic centre before a visual *sensation* can be produced. Attempt a more direct process, and failure is inevitable: cane-sugar injected into the veins is expelled in the urine as a foreign substance, not assimilable; and, in like manner, the most dexterous adjustment of rays of light falling *immediately* on the optic ganglion, not transmitted thereto by the optic nerve, would produce no visual sensation.

* Müller, *Physiology*, Eng. Trans. i. 1072.

Does not this demonstrate the purely subjective nature of all our knowledge, and the necessary admixture of the ideal element in all perception? It also demonstrates the futility of the theory adopted by Hartley and Darwin, which attempts to explain mental phenomena by 'vibrations' and 'motions.' Motion can only be motion, it cannot be the specific phenomenon we name sensation. To call sensations and ideas by the vague name of motions, is to violate the conditions of philosophic language, and to mislead those who accept it into the belief that an explanation has been given in the change of term. That Darwin was by it misled into absurdity will be apparent in the following attempt to explain perception :—

'No one will deny,' he says, 'that the medulla of the brain and nerves has a certain figure; which, as it is diffused through nearly the whole of the body, must have nearly the figure of that body. Now it follows that the spirit of animation, or living principle, as it occupies this medulla and no other part, has also the same figure as the medulla . . . which is nearly the figure of the body. When the idea of solidity is excited, a part of the extensive organ of touch is compressed by some external body, and this part of the sensorium so compressed exactly resembles *in figure* the figure of the body that compressed it. Hence when we acquire the idea of solidity we acquire at the same time the idea of *figure;* and this idea of figure, or motion of *a part* of the organ of touch, exactly resembles *in its figure* the figure of the body that occasions it; and thus exactly acquaints us with this property of the external world.'*

He is thus brought back to the old conception of the mind being 'impressed' by the exact forms of objects as wax is impressed by a seal. As he proceeds he gets more and more absurd. Thus he says, although 'there may exist beings in the universe that have not the property of solidity; that is, which can possess any part of space at the same time that it is occupied by other bodies; yet there may be other beings that *can assume this property of solidity or disrobe themselves of it occasionally,* as we are taught of spirits and of angels; and it would seem that the *spirit of animation* must be endued with this property, *otherwise how could it occasionally give motion to the limbs of animals?* or be itself stimulated into motion by the obtrusions of surrounding bodies, as of light or odour?'† He is led to this by the Spinozistic axiom, that 'no two things can influence or affect each other which have not some

* *Zoonomia*, pp. 111–2. † *Ibid.*, p. 114.

property common to both of them,' which axiom destroys the possibility of spirit acting on body. Hartley, as we saw, tried to get over this difficulty by assuming the existence of a substance intermediate between body and spirit. Darwin finds it easy to assume that the spirit has the power of putting on or putting off the properties of matter just as it pleases. 'Hence the spirit of animation at the time it communicates or receives motion from solid bodies must itself possess some property of solidity. And at the time it receives other kinds of motion from light, it must possess that property which light possesses to communicate that motion named Visibility. In like manner it possesses Saporosity, Odorosity, Tangibility, and Audibility.'*

This is enough to show how little Darwin understood the real value of his luminous idea respecting Psychology based on the laws of life; enough also to make every one understand how philosophers rebelled against such 'materialism' as issued from the explanation of mental phenomena by 'sensory motions.' Before finally quitting the *Zoonomia* we must pause a moment over the explanation of our feeling for Beauty. He describes the sensations of the babe when 'soon after it is born into this cold world it is applied to its mother's warm bosom,' and the agreeable influences which thus grow up in the mind associated with the form of the bosom 'which the infant embraces with its hands, presses with its lips, and watches with its eyes; and thus acquires more accurate ideas of the form than of the odour, and flavour, or warmth, which it perceives by its other senses. And hence in our maturer years, when any object of vision is presented to us, which, by its waving or spiral lines, bears any similitude to the form of the female bosom,—whether it be found in a landscape with soft gradations of rising and descending surface, or in the form of some antique vases, or in the works of the pencil or chisel,—we feel a general glow of delight which seems to influence all our senses; and if the object be not too large, we experience an attraction to embrace it with our arms, and to salute it with our lips, as we did in our early infancy the bosom of our mother.'†

One of the happiest illustrations of ridicule being the test of truth, is the reply of Sheridan to this theory of Beauty. 'I suppose,' said he, 'that the child brought up by hand, would feel all these emotions at the sight of a wooden spoon!'

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* *Zoonomia*, i. 115.

† *Ibid.*, i. 145.

SEVENTH EPOCH.

SECOND CRISIS: IDEALISM, SCEPTICISM, AND SENSATIONALISM PRODUCING THE REACTION OF COMMON SENSE.

CHAPTER I.

REID.

DUGALD STEWART opens his *Account of the Life and Writings of Thomas Reid* with remarking that the life was 'uncommonly barren of those incidents which furnish materials for biography;' and as our space is scanty, we will content ourselves with a bare enumeration of such facts as may be useful for reference. Thomas Reid was born in 1710, at Strachan in Kincardineshire. He was educated at Marischal College, Aberdeen. In 1752 he occupied the chair of Moral Philosophy in Aberdeen. In 1764 appeared his *Inquiry into the Human Mind on the Principles of Common Sense.* 'In 1763* the *Inquiry* received a still more substantial testimony of approbation from the University of Glasgow,' in the offer of the chair of Moral Philosophy, vacant by the resignation of Adam Smith. In 1780 Reid resigned his office, and passed the remaining years of his life in retirement and study. In 1785 appeared his *Essays on the Intellectual Powers.* He died in Glasgow in 1796, having survived four of his children.

Reid's philosophy made a great stir at first, but has for some years past been sinking into merited neglect. The appeal to Common Sense as arbiter in Philosophy, is now pretty well understood to be on a par with Dr. Johnson's kicking a stone as a refutation of Berkeley. Indeed Dugald Stewart himself was fully alive to the inconsequence of such an argument, and endeavoured to shield his master by saying that the phrases 'Common Sense' and 'Instinct' were unhappily chosen. Unfortunately they were not mere phrases

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* We follow Stewart; but there must be some error here. If the *Inquiry* was not published till 1764, Reid could not in 1763 have been offered the chair at Glasgow as a 'testimony of approbation.'

with Reid; they were principles. It is impossible to read the *Inquiry* and not see that Reid took his stand upon Common Sense;* and Beattie and Oswald, his immediate disciples, are still more open to the charge.

It would carry us to great lengths if we were to examine all the questionable tenets contained in the Philosophy of Common Sense. We cannot however pass the supposed triumph over Locke, who said that personal identity consists in Consciousness; 'that is,' continues Reid, 'if you are conscious you did such a thing a twelvemonth ago, this consciousness of what is past can signify nothing else but the remembrance that I did it; so Locke's principle must be, that Identity consists in remembrance; and, consequently, a man must lose his personal identity with regard to everything he forgets.' Here Locke is altogether misstated. Consciousness does not resolve itself into any single act of memory, as Reid would here have us believe, nor can personal identity be limited to any one act. I have the consciousness of a certain mental state, therewith is connected the remembrance of some anterior state, which was also connected with an anterior state, and so on. The chain is made up of many links, and although some of these may be out of sight, not one is broken. I am connected with my boyhood by a regular series of transmitted acts of consciousness. I may have forgotten a thousand things, but I have not forgotten myself: if *one* act performed yesterday is forgotten today, *all* are not forgotten; and to remember one, however indistinctly, is sufficient to keep up the continuity of consciousness. Let those who fancy the sentiment of personal identity does not consist in the consciousness of personal identity, show us in what it does consist.

We come now to Reid's great achievement, that upon which he declared his philosophical fame to rest: the refutation of Berkeley and Hume by the refutation of the Ideal theory. This he considered as his contribution to philosophy; this has been made the monument of his glory. It appears to us, after a long acquaintance with his writings, and a careful perusal of what his critics and admirers have advanced, that his sole merit in this respect is that of having called attention to some abuses of language, and to some examples of metaphors mistaken for facts. How much confusion

* 'I despise Philosophy, and renounce its guidance: let my soul dwell with Common Sense.' (*Inquiry*, ch. i. § 3.) Let it be observed in passing, that by Reid's disciples the *Inquiry* is always regarded as his best work; the *Essays* were written in old-age.

the word 'idea' has always created need scarcely be alluded to; and any attempt to destroy the acceptation of the word as tantamount to *image*, must be welcomed as salutary. So far let us be grateful to Reid. Locke's use of the word 'idea' as signifying 'a thought' instead of an 'image,' has misled thousands. But whatever abuses may have crept in with the use of the word idea, it seems to us quite clear that Berkeley and Hume are not to be refuted by refuting the hypothesis of ideas, as Reid and his school suppose.

Let us, to avoid useless discussion, take it for granted that philosophers did adopt the theory of ideas which Reid combats; let us also grant that Reid has overturned that theory. What advance is made towards a solution of the problem? Not one step. The dilemma into which Hume threw Philosophy remains the same as ever. As I cannot transcend the sphere of my Consciousness, I can never know things except as they act upon me—as they affect my Consciousness. In other words, a knowledge of an external world otherwise than as it appears to my Sense, which transforms and distorts it, is impossible.

This proposition may be said to form the ground of Scepticism. Now, we ask, how is that proposition affected by overthrowing the ideal theory? What does it signify whether the 'affections of my consciousness' be regarded as 'images' or not? They do not remain less purely *subjective* whichever way we regard them. They are changes *in me*. The main position of Scepticism is precisely this subjectivity of knowledge. Because we cannot transcend consciousness, we can never know things *per se*. Reid acknowledges that we cannot know things *per se;* but he says that we must believe in them, because in what we do know their existence is *suggested*. This is exactly the opinion of Locke; nay more, it is the doctrine of Hume: for he says that we do believe in an external world, though we have no good reason for doing so. Sir J. Mackintosh relates that he once observed to Dr. Thomas Brown that he thought Reid and Hume differed more in words than opinions; Brown answered, 'Yes, Reid bawled out we must believe in an outward world; but added, in a whisper, we can give no reason for our belief. Hume cries out we can give no reason for such a notion; and whispers, I own we cannot get rid of it.'

Reid ought to have seen that his refutation of the ideal theory left Idealism and Scepticism untouched:* for either doctrine it mat-

* In fact Malebranche's Idealism, which is very similar to Berkeley's, is founded on a theory of Perception almost identical with Reid's.

ters little *how* the knowledge be acquired, so that it be entirely subjective. The argument brought forward by Dugald Stewart—that the belief in the existence of an external world is one of the Fundamental Laws of Human Belief—is more philosophical; but when he says that Berkeley's Idealism was owing to the unhappy and unphilosophical attempt of Descartes to prove the existence of the world, he forgets that Idealism was known in the ancient schools long before any one thought of proving the existence of matter. Moreover, although Stewart's formula is not open to the same objections as Reid's, yet it leaves the vital question untouched.

No one doubts that we believe in the existence of an external world. Idealism never questions the fact. The only doubt is, whether that belief be objectively as well as subjectively true. To say that the belief in objective existence is a Fundamental Law, is simply saying that *we are so constituted* that we are forced to attribute external reality to our sensations. As well say we are so constituted that fire applied to our bodies will give us pain. We *are* so constituted. What then? Does this advance us one step? Not one. We have still to seek some proof of the *laws of our constitution* being the measure of the *laws of other existences*—still to seek how what is true of the subjective must necessarily be true of the objective.

Thus, granting to Stewart all he claims, we see that he does not attain to the heart of the question; and, strictly speaking, he does not touch Berkeley at all; he only touches Hume. For what answer can it be to Berkeley, to say that our Belief in matter is a Fundamental Law, not to be questioned? Berkeley would reply: 'Exactly; I said as much. I said that men believed their senses, and believed that what they saw was *out* of them. This is the law of human nature: God has so ordained it. But that which men do *not* believe, is the existence of an occult substance, an imaginary world lying underneath all appearances. You do not mean to assert that the belief in this substance is a Fundamental Law? If you do, you must be mad.' Stewart's answer is thus shown to be quite *beside* the mark.

Reid constantly declares that no reason can be given for our belief; it must be referred to an original instinctive principle of our constitution implanted in us for that express purpose. If this be so, we ask upon what pretence does Reid claim the merit of having refuted Idealism and Scepticism by refuting the ideal hypothesis? If *instinct* and not *reason* is to settle the question, then

has the *ideal hypothesis* nothing to do with it; if the refutation of the ideal hypothesis sufficed, then has instinct nothing to do with it. 'To talk of Dr. Reid,' said the *Quarterly*, in its review of Stewart's Second Dissertation, 'as if his writings had opposed a barrier to the prevalence of sceptical philosophy, is an evident mistake. Dr. Reid successfully refuted the principles by which Berkeley and Hume endeavoured to establish their conclusions; but the conclusions themselves he himself adopted as the very premisses from which he reasons. The impossibility of proving the existence of a material world from "reason, or experience, or instruction, or habit, or any other principle hitherto known to philosophers," is the argument and the *only* argument by which he endeavours to force upon us his theory of instinctive principles.'

It appears, then, that inasmuch as Reid declares *instinct* to be the *only* principle upon which we can found our belief in an external world, his argument against Berkeley is trebly vicious. First, because the *belief* was never questioned; secondly, because although we must *act* according to our instincts, such a necessity is no proof that our *beliefs are true;* thirdly, because if instinct, and not reason, is to be the arbiter, the attack on the ideal hypothesis is utterly beside the question.

Thus we see that, granting to Reid the glory he claims of having destroyed the ideal hypothesis, he has only destroyed an outpost, fancying it to be the fortress. A few words on his own theory of perception may not be out of place here.

He justly enough declared the ideal hypothesis to be gratuitous. We have no reason for supposing that the mind perceives images of things instead of the things themselves. But he overlooks, or rather denies, the fact that we perceive things *mediately;* he says we perceive them *immediately*. His explanations are contradictory and confused, but he repeats the assertion so often, that there can be no doubt he meant to say we perceive things immediately: the mind stands face to face with the thing, and perceives it immediately, without any medium of ideas, images, eidola, or the like. In this we believe him utterly in the wrong; his battle against 'ideas' carried him too far. It is one thing to say that *we are affected by the things,* and not by *images* of things; and another thing to say that we *perceive things immediately*. The former is correct; the latter is in direct contradiction with all we know of perception; and Reid constantly contradicts himself on the point.

'When I attend,' he says, 'as carefully as I can to what passes

in my mind, it appears evident that the *very thing* I saw yesterday, and the fragrance I smelled, are now the *immediate objects* of my mind when I remember it. . . . Upon the strictest attention, memory appears to me to have the things that are past, *and not present ideas,* for its objects.'

This is his position against the ideal hypothesis which assumes that nothing is perceived but what is in the mind which perceives it; that we do not really perceive things which are external, but only certain images and pictures of them imprinted on the mind. The position is untenable. The *very thing,* the rose, of which he thinks, is not an *immediate object* at all: *it* is elsewhere. The fragrance cannot even be recalled; that is to say, cannot be *felt* again, but only *thought.* All we can remember is the fact of having been affected by the rose in a certain manner: that affection we call fragrance; we cannot recall the affection. Reid could hardly therefore have meant what his words literally express. Perhaps he meant, that when we think of the rose and the fragrance, the object of which we think is the rose, not an idea of the rose. But what a truism! He says, that 'in memory the *things* that are past, and not present *ideas,* are the objects of the mind.' This is either a needless truism or a falsism. Let us alter the sentence thus—'In memory the *things thought of* are not themselves present to the mind, but the *thoughts* only are present to it.' Reid would not dispute this—could not dispute it: yet it is only a more guarded statement of the ideal hypothesis; it substitutes 'thoughts' for 'ideas.' He was misled by the ambiguity of the word 'object,' which he uses as if meaning simply what the mind is thinking of; and of course the mind thinks of the thing, and not of the idea. But the ideal hypothesis takes 'object' to be that which is *immediately present to*—face to face—with the mind, viz. an idea, or thought; and of course the mind thinks *by* its thoughts: it may think *about the thing,* but it is *through the medium of thought.*

The difference is this:—The Idealist says, that when things affect us, our sensations are what we perceive, and not the things producing those sensations. Reid says, we feel our sensations, but therewith also we perceive the things. The Idealist further says, that when we think of things, the immediate object face to face with the mind is not a thing but an idea (thought). Reid says the object is the *very thing:* which is either an absurdity, or else does not differ from the ideal hypothesis.

We are quite ready to admit that the pretended separation of

thoughts from thinking, and the making thoughts 'objects,' is vicious; and therefore Reid's language is perhaps less objectionable. But we must confess that we see no other advantage he gains over his adversaries. He does not pretend that our sensations are at all *like* their causes; nay, he fancies that he destroys the ideal hypothesis by insisting on the want of resemblance between matter and our sensations. He says, over and over again, that the external world is in no respect like our sensations of it. 'Indeed, no man can conceive any sensation to resemble any known quality of bodies. Nor can any man show, by any good argument, that all our sensations might not have been as they are, though no body, nor quality of body, had ever existed.'* This granted, the question arises, How do you know anything of the external world? Reid answers, 'It is owing to an original instinct implanted in us for that purpose.' Push the question further, drive him into a corner, and bid him tell you what that instinct enables you to know of matter, and he will answer, 'In sensation there is suggested to us a cause of that sensation in the quality of a body capable of producing it.' This is Locke's view.

The great point in Reid's theory is, that with our sensations are joined perceptions. 'The senses have a double province,' he says; 'they furnish us with a variety of sensations, some pleasant, others painful, and others indifferent; at the same time they give us a conception, and an invincible belief of the existence of external objects. This conception and belief, which Nature produces by means of the senses, we call *perception*.'† This, upon which so much stress is laid that philosophers are said to have been always in error because they overlooked it, we regard as a remarkable instance of Reid's want of subtlety. Neither Berkeley nor Hume denied the fact of our belief in the externality of the causes of sensations: Berkeley denied that these causes had an occult substratum; Hume denied that any reason could be given for our belief in their externality. What force then has 'Perception'? It is nothing more than that 'belief,' according to Reid; though to call perception a belief is, to say the least, a somewhat inaccurate use of language. But grant all he wishes, and you grant that with our sensations there is an accompanying belief in the existence of an external cause of those sensations. Berkeley would answer, 'Very true; but that cause is not unthinking matter.' Hume would an-

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* *Inquiry*, ch. v. § 2. † *Essays on Intellectual Powers*, ii. ch. xvii.

swer, 'Very true; but we can give no reason for our belief; we can know nothing of the cause.' Reid can only retort, 'Perception *is* belief:' a retort which has been deemed satisfactory by his school; which really is only an abuse of language; and which moreover has the further disadvantage of being available only as an argument against Hume; for against Berkeley it is powerless. If perception is belief, and we perceive an external world, Hume may be answered when he says we have no grounds for our belief. But Berkeley is not answered. He says that we *do* believe in an external world; but that world is not a world of unthinking matter—it is a world of divine agency. Reid would not pretend that in sensation or perception we can distinguish the *nature* of the causes which affect us; he constantly tells us that we cannot know *what* those causes are, but only *that* there are causes. As long as the *noumenal* world is removed from our inspection, so long must Berkeley remain unrefuted by any theory of perception. The error of his system, as we endeavoured to show, is in the gratuitousness of his assumption with respect to the immediate agency of the Deity.

Reid says, that if we grant Berkeley's premiss—viz. 'we can have no conception of any material thing which is not like some sensation in our minds'—then are the conclusions of Idealism and Scepticism unanswerable. This premiss therefore he disputes. Now attend to his challenge:—'This I would therefore humbly propose, as an *experimentum crucis*, by which the ideal system must stand or fall; and it brings the matter to a short issue: Extension, figure, and motion may, any one or all of them, be taken for the subject of this experiment. Either they are ideas of sensation, or they are not. If any one of them can be shown to be an idea of sensation, or to have the least resemblance to any sensation, I lay my hand upon my mouth and give up all pretence to reconcile reason to common sense in this matter, and must suffer the ideal scepticism to triumph.'* It was not till after repeated perusals that we caught the significance of this passage; and are not *quite* positive that we have understood it now. To admit it to have any force at all, we must understand 'ideas of sensation' as '*images* of sensation.' Certainly, extension is no copy of any one sensation. But if Reid means to say that the idea of extension is not the result of complex sensations which a body excites in us—if he means to say that

* *Inquiry*, ch. v. § 7.

the idea of extension is not an abstract idea by which we express a certain property of bodies, a property known to us only through sensation—then must we cease all dispute, and leave him in possession of his wonderful discovery.

Reid's theory of perception may be thus stated:—External objects occasion certain sensations in us; with these sensations we perceive the existence of certain qualities capable of producing them: these he distinguishes into primary and secondary. The primary, he says, we perceive *immediately;* the second, *mediately.*

And this is the theory by which, with the aid of an 'original instinct' (some instincts then are acquired?), he is supposed to have refuted Idealism. Any one may see that Berkeley might readily have relinquished his ideal hypothesis, and accepted Reid's, with perfect security for Idealism. The 'unknown causes,' which Reid calls 'qualities,' Berkeley calls 'divine laws.' The difference is merely nominal.

This much with respect to Idealism. With respect to Hume, the theory is almost as harmless. Hume would say, 'All that is given in sensation is sensation; your "perception" (which you call belief) of qualities amounts to nothing more than a *supposition*—a necessary one, I admit; but I have always said that our belief in external causes of sensation was an *irresistible prejudice;* and my argument is, that we have nothing but the prejudice as a proof—reason, we have none.'

Finally, with respect to Locke, it will in the first place be seen that Reid's solution is neither more nor less than that given by Locke; in the second place, the boasted refutation of the ideal hypothesis is always supposed by Reid's school to be a refutation of Locke's view of the origin of knowledge; and this is a very great mistake. Because Berkeley and Hume pushed Locke's system to conclusions from which he wisely shrank, it has been generally supposed that his account of the origin of our knowledge is indissolubly bound up with the ideal hypothesis, by it to stand or fall. This probably is the meaning of the vulgar error that Locke's view of knowledge leads to atheism. It led to Hume. In disproof of Reid's supposition we answer, firstly, Idealism is not indissolubly bound up with the ideal hypothesis, although Berkeley may have adopted that hypothesis; secondly, Locke's system is altogether independent of the hypothesis, and in his Review of the doctrines of Malebranche he very distinctly and emphatically denies it. The force of this observation will better be appreciated when it is re-

membered that although Locke's language is notoriously unguarded and wavering, all his reasonings are founded on the use of the word 'ideas' as synonymous with 'notions' or 'thoughts.'

In conclusion, although we think it has been shown that the Common-Sense Philosophy egregiously failed in answering Berkeley and Hume, it was not without service by directing the attention of mankind more exclusively to Psychology. The phrases so complacently used by Dugald Stewart to express the nature of his inquiries, namely 'inductive metaphysics' and 'experimental philosophy of the mind,' are perhaps objectionable; but few will deny the value of his *Elements*, and of Brown's *Lectures*, works so popular as to need no further mention here. The *Analysis of the Mind*, by the late James Mill, which may be regarded as the development of Hartley's doctrine, stripped of its physical hypothesis, is less known; but it is a work of great value, and would long ago have been as popular had it been written in a more engaging manner. No one interested in these inquiries should omit studying it.*

The philosophy of the Scotch School was a protest against Scepticism. It failed; but another protest was made in Germany, and on philosophical principles. That also failed, but in another way; and the attempt was altogether more worthy of Philosophy. The reader foresees that we allude to Kant.

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* Since the first edition of this work, Sir W. Hamilton has published an edition of Reid, illustrated and enriched by notes and dissertations of incomparable erudition and acuteness. Respecting the interpretation Sir William gives to Reid's doctrines, I will only say that he has shown what a subtle mind can *read into* the philosophy of common sense; but he has not in the least produced the conviction in me of Reid's having meant what the illustrious successor supposed him to have meant. At the same time I will add that the limits of my work having restricted me to the consideration of Reid's contributions to Philosophy (in the narrow sense of the term), I have not done justice to his many excellent qualities as a teacher. His works are well worthy of diligent study, and their spirit is eminently scientific.

EIGHTH EPOCH.

RECURRENCE TO THE FUNDAMENTAL QUESTION RESPECTING THE ORIGIN OF KNOWLEDGE.

CHAPTER I.

KANT.

§ I. Life of Kant.

IMMANUEL KANT was born at Königsberg, in Prussia, 22nd April, 1724. His family was originally Scotch, a circumstance which, when taken in conjunction with his philosophical connection with Hume, has some little interest. His father was a saddler, a man of tried integrity. His mother was somewhat severe, but upright, speaking the truth, and exacting it. Kant was early bred in a love of truth, and had before him such examples of moral worth as must materially have contributed to form his own inflexible principles.

Madame de Staël has remarked, that there is scarcely another example, except in Grecian history, of a life so rigorously philosophical as that of Kant. He lived to a great age, and never once quitted the snows of murky Königsberg. There he passed a calm and happy existence, meditating, professing, and writing. He had mastered all the sciences; he had studied languages, and cultivated literature. He lived and died a type of the German Professor: he rose, smoked, drank his coffee, wrote, lectured, took his daily walk always at precisely the same hour. The cathedral clock, it was said, was not more punctual in its movements than Immanuel Kant.*

He was early sent to the University. There he began and there he ended his career. Mathematics and physics principally occupied his attention at first; and the success with which he pursued these studies soon manifested itself in various publications. He pre-

* He mentions having once been kept two or three days from his promenade by reading Rousseau's *Emile*, which had just appeared.

dicted the existence of the planet Uranus; and Herschel himself, after discovering it, admitted Kant's having first announced it.

But none of these publications attracted much attention till the renown of his *Critique of Pure Reason* had made everything produced by him a matter of interest. Nor did the *Critique* itself attract notice at first. The novelty of its views, the repulsiveness of its terminology and style, for some time obscured its real value. This value was at length discovered and made known. All Germany rang with praises of the new philosophy. Almost every 'chair' was filled by a Kantist. Numberless books and not a few pamphlets came rapidly from the press, either attacking or defending the principles of the Critical Philosophy. Kant had likened himself to Copernicus. The disciples likened him both to Copernicus and Newton; for he had not only changed the whole science of Metaphysics, as Copernicus had changed the science of Astronomy, but had also consummated the science he originated.

The *Critique* was, he tells us, the product of twelve years' meditation. It was written in less than five months. These two facts sufficiently explain the defects of its composition. In his long meditations he had elaborated his system, divided and subdivided it, and completed its heavy and useless terminology. In the rapidity of composition he had no time for the graces of style, nor for that all-important clearness of structure which (depending as it does upon the due gradation of the parts, and upon the clearness with which the parts themselves are conceived) may be regarded as the great desideratum of a philosophical style.

But in spite of these defects—defects which would have been pardoned by no public but a German public—the *Critique* became celebrated, and its author had to endure the penalty of celebrity. He was pestered with numerous calls of curious strangers, who would not leave Königsberg without having seen him. To the curious were added the admiring. Enthusiastic scholars undertook long journeys to see their great master. Professor Reuss one day walked into his study, saying brusquely that 'he had travelled a hundred and sixty miles to see and speak with Kant.' The visits became so numerous, that in the latter part of his life he contented himself with merely showing himself at the door of his study for a few minutes.

Kant never spoke of his own system, and from his house the subject was entirely banished. He scarcely read any of the attacks on his works: he had enough of Philosophy in his study and

lecture-room, and was glad to escape from it to the topics of the day.

He died on the 12th of February, 1804, in the eightieth year of his age, retaining his powers almost to the last. He latterly, during his illness, talked much of his approaching end. 'I do not fear death,' he said, 'for I know how to die. I assure you that if I knew this night was to be my last, I would raise my hands, and say "God be praised!" The case would be far different if I had ever caused the misery of any of his creatures.'

For a picture of Kant's daily habits, and many interesting traits of his character, the reader will do well to look at De Quincey's 'Last Days of Immanuel Kant' in the third volume of his *Miscellanies*. I cannot find space for such details; nor for more than a passing mention of Kant's relation to Swedenborg, of which such unjustifiable use is often made by the admirers of the latter, who proclaim, with emphasis, that Kant testified to the truth of Swedenborg's *clairvoyance*. He did nothing of the kind. In his *Letter on Swedenborg** he narrates two of the *reported* cases of Swedenborg's *clairvoyance*, and says he knows not how to disprove them, they being supported by such respectable testimony; but he nowhere testifies to them himself; and in the *Anthropologie*, §§ 35 and 37,† his energetic contempt for Swedenborgianism and all other *Schwärmerei* is unequivocally expressed.

§ II. Kant's Historical Position.

There is a notion, somewhat widely spread through England, that Kant was a 'dreamer.' He is regarded as a sort of Mystic; and the epithet '*transcendental*' is made to express the superb contempt which common sense feels for the vagaries of philosophers. The 'dreams of the Kantian philosophy,' and 'transcendental nonsense,' are phrases which, once popular, now less so, are still occasionally to be met with in quarters where one little expects to find them.

We are bound to say that, whatever the errors of Kantism, 'dreaminess' or 'mysticism' are the last qualities to be predicated of it. If its terminology render it somewhat obscure and repulsive, no sooner is the language comprehended, than all obscurity falls away, and a system of philosophy is revealed, which for rigour, clearness,

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* *Kleine Anthropologische Schriften* (Theil vii. p. 5 of Rosenkrantz and Schubert's ed.).

† *Ibid.*, zweite Abtheil. p. 89 *sq.*

and, above all, intelligibility, surpasses, by many degrees, systems hitherto considered easy enough of comprehension.

Convinced that the system of Kant is plainly intelligible, and finding that neither Kant himself nor the generality of his expositors have succeeded in overcoming the repulsiveness of neologisms and a cumbrous terminology,* our task must obviously be to give an exposition of the system, as far as possible, in ordinary philosophical language; and, by exhibiting the historical position which it occupies, connect with it speculations already familiar to the reader.

From Spinoza to Kant the great question had been this:—*Have we, or have we not, any Ideas which can be called necessarily, absolutely true?* A question which resolved itself into this:—*Have we, or have we not, any Ideas independent of Experience?*

The answer given by the majority of thinkers was, that we had no ideas independent of Experience; and Hume had shown that Experience itself was utterly incompetent to assure us of any truth not simply relative.

Experience irresistibly led to Scepticism. The dilemma therefore, which we signalized in the First Crisis of modern Philosophy, again presented itself: Spinozism or Scepticism? The labours of so many thinkers had only brought the question round to its starting point. But Spinozism was alarming—Scepticism scarcely less so. Before submitting to be gored by either horn of the dilemma, men looked about to see if there was no escape possible. A temporary refuge was found by the Scotch School in Common Sense, and by Kant in *Criticism.*

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* Since this was written, we have read the work of Victor Cousin, *Leçons sur Kant*, vol. i. Paris, 1842. (Translated into English by Mr. Henderson, London, 1854.) It is not only one of the best expositions we have seen; it is also the most intelligible. The chapter on Kant in M. Barchou de Penhoen's useful work, *Histoire de la Philos. Allemande depuis Leibnitz jusqu'à Hegel*, 2 vols. Paris, 1836, may also be read with advantage; though incomplete, it is intelligible. Also Morell's *History of Speculative Philos. in the Nineteenth century.* Readers of German will do well to read Chalybäus's *Historische Entwickelung der Speculativen Philos. von Kant bis Hegel* (Dresden, 1843). (It has been twice translated into English: by Mr. Tulk and by Mr. Edersheim.) Michelet's *Geschichte der letzten Systeme der Philos. in Deutschland von Kant bis Hegel* (Berlin, 1837), is a learned and valuable work, but can be read only by the initiated. More generally useful than any of these is the *Hist. de la Philos. Allemande depuis Kant jusqu'à Hegel*, by J. Wilm, Paris, 1856. Kant's *Critique of Pure Reason* has been translated by Mr. Meiklejohn (*Bohn's Philosophical Library*, 1855) with so much accuracy and ability that the translation may be read with entire confidence; which can rarely be said of translations from the German.

Kant called his system the *Critical* Philosophy. His object was to examine into the nature of this Experience which led to Scepticism. While men were agreed that Experience was the source of all knowledge, Kant asked himself, What is this Experience?—What are its Elements?

The problem he set himself to solve was but a new aspect of the problem of Locke's *Essay*. On this deep and intricate question of human knowledge two opposite parties had been formed—the one declaring that all our knowledge was given in Experience, and that all the materials were derived from Sensation, and Reflection upon those materials; the other declaring that Sensation only furnished a portion of our Experience. This second party maintained that there were Elements of knowledge which not only were never derived from Sensation, but which absolutely *transcended* all sensation. Such, for instance, is the idea of Substance. Experience only informs us of *qualities*: to these qualities we add a substratum which we call Substance; and this idea of a substratum, which we are *compelled* to add, Locke himself confesses we never gained through any sensation of matter. Other ideas, such as Causality, Infinity, Eternity, etc., are also independent of Experience: *ergo*, says this school, antecedent to it.

In the course of inquiry, the untenableness of the theory of innate ideas had become apparent. Descartes himself, when closely pressed by his adversaries, gave it up. Still the fact of our possessing ideas apparently *not* derivable from experience, remained; and this fact was to be explained. To explain it, Leibnitz asserted that although all knowledge *begins with* Sensation, it is not all *derived from* Sensation; the mind furnishes its quota; and what it furnishes has the character of universality, necessity, consequently of truth, stamped on it. This doctrine, slightly modified, is popularly known as the doctrine of 'original instincts'—of 'Fundamental Laws of Belief.'

Kant also recognized the fact insisted on by the adversaries of the Sensational School; and this fact he set himself carefully to examine. His first object was therefore a Criticism of the operations of the mind.

Kant considered that his conception of a purely critical philosophy was entirely original.* No one before him had thought of thus subjecting Reason itself to a thoroughly critical investigation,

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* And Sir W. Hamilton repeats the statement: *Discussions*, p. 15.

in order to reach answers to such questions as: Are *à priori* synthetic judgments possible? Is a science of Metaphysics possible? Certainly no one had isolated the *à priori* elements of knowledge from those given in Experience, as Kant isolated them, to build a system thereon; but the whole tendency of speculative development since Hobbes, had been, as we have seen, towards the investigation of the grounds of certitude.

On interrogating his Consciousness, Kant found that neither of the two ordinary explanations would account for the phenomena: the abstract Ideas we have, such as Time, Space, Causality, etc., could not be resolved into Experience alone: nor, on the other hand, although *à priori*, could they be supposed absolutely *independent* of Experience, since they are, as it were, only the *forms* (necessary conditions) of our Experience.

There are not *two* sources of Knowledge, said he: on the one side, external objects, and on the other, human understanding. Knowledge has but *one* source, and that is the *union* of object and subject. Thus, water is the union of oxygen and hydrogen; but you cannot say that water has two causes, oxygen and hydrogen; it has only one cause, namely, the union of the two.

In this conception the existence of two distinct factors is assumed. 'That all our knowledge begins with Experience,' he says, 'there can be no doubt. For how is it possible that the faculty of cognition should be awakened into exercise otherwise than by means of objects which affect our senses, and partly of themselves produce representations (*Vorstellungen*), partly rouse our powers of understanding into activity, to compare, to connect, or to separate these, and so to convert the raw material of our sensuous impressions into a knowledge of objects which is called Experience? In respect of time, therefore, no knowledge of ours is antecedent to Experience, but begins with it. But although all our knowledge begins with Experience, it by no means follows that all arises out of Experience. For, on the contrary, it is quite possible that our empirical knowledge (*Erfahrungserkenntniss*) is a compound of that which we receive through impressions, and that which the faculty of cognition supplies from itself (sensuous impressions giving merely the *occasion*), an addition which we cannot distinguish from the original element given by sense, till long practice has made us attentive to and skilful in separating it. It is therefore a question which requires close investigation, and is not to be answered at first sight—whether there exists a knowledge

altogether independent of Experience, and even of all sensuous impressions.'*

To investigate this is the purpose of Criticism.

The whole world is to us a series of Phenomena. Are these Appearances the *production of the Mind* to which they appear; or are they the pure *presentation* of the things themselves? Idealism or Realism? Neither; yet both. The Mind and the object *co-operating* produce the Appearance or sensuous impression. In their union Perception is effectuated.

The Mind has certain materials furnished it, and on these materials it imposes certain forms or conditions of its own. These forms alone make perception possible, since they constitute the modes of the mind's operation. If we had only sensations—that is, supposing objects acted upon us, and *we did not also act upon them*—the result would be no more than that of the wind playing on the Æolian harp; Experience would be impossible. To make Experience possible, the mind must grasp objects in a synthesis of the objects and the forms of the perceptive power.

Kant's Criticism was directed against Locke on the one hand, in establishing that we *have* ideas independent of Experience; and against Hume on the other, in establishing that these ideas have a character of universality, necessity, and irresistibility. But—and the point is important—his Criticism proved that these ideas, although universal and certain, could not be called *absolutely* true: they were only *subjectively* true. This was falling back into Hume's position; since although Hume called belief in causality the effect of habit, and Kant called it a law of the mind, yet both agreed in denying to it any *objective* truth; both agreed that a knowledge of things *per se* was impossible.

We regard the result of Kant's investigation of the elements of Thought as nothing less than a scientific basis for Scepticism. He likens his philosophical reform to the reform introduced into Astronomy by Copernicus.† Finding the labours of men unsatisfactory, Copernicus bethought him that perhaps success might crown his efforts if he shifted his ground, if, instead of assuming that the sun turned round the earth, he were to assume that the earth turned round the sun. So Kant says, that the ordinary assumption of our knowledge following the order of external objects, seemed to him better if reversed, and if we were to assume that the objects obeyed

* *Kritik*, Einleitung, (Translation, p. 1).

† See the celebrated second Preface to the *Kritik*.

the laws of our mental constitution. And he calls his system critical, because it is founded on an examination of our cognitive faculties. Both the name and the comparison appear to us erroneous. An examination of the cognitive faculties was, as we have often said, the great topic of philosophical speculation, and although the examination of Kant differed somewhat from every other in result, it in nowise differed in method. Copernicus positively changed the point of view. Kant did nothing of the kind: his attempt to deduce the laws of the phenomenal world from the laws of mind, was little more than the attempt of Descartes to deduce the world from Consciousness; it is the same as the attempts of Leibnitz and Berkeley in method; and the *result* is very much the result obtained by Hume, namely, that we can know nothing but our own ideas, we can never know things *per se*. Kant, after analyzing the operations of the mind, discovered indeed certain principles of certitude; but he admitted that those principles could not be applied to things *beyond* the Mind; and that all within the sphere of our cognition was no more than phenomenal. He reviews his investigation, and then, declaring that he has gone the round of the domain of human Understanding and measured it exactly, he is still forced to admit that that domain is only an island. Nature has assigned to it invariable limits. It is the empire of Truth; but it is surrounded by a stormy and illimitable sea, upon which we discover nothing but illusions. There, on that sea, the navigator, deceived by masses of ice which appear and disappear successively before him, believing that at every moment he is about to discover land, wanders without repose, guided only by one hope; he is the plaything of the stormy waves, always forming new plans, always preparing himself for new experiences, which he cannot renounce, and yet which he can never obtain.*

To the Sceptic Kant says, 'No: experience is not a deceit; human Understanding has its fixed laws, and those laws are true.'

To the Dogmatist he says, 'But this Understanding can never know Things *per se*. It is occupied solely with its own Ideas. It perceives only the Appearances of Things. How would it be possible to know Noumena? By stripping them of the *forms* which our Sensibility and Understanding have impressed upon them (*i. e.* by making them cease to be Appearances). But to strip them of these forms, we must annihilate Consciousness—we must substitute

* *Kritik*, b. i. cap. iii.

for our Sensibility and Understanding, a faculty, or faculties, capable of perceiving Things *per se*. This, it is obvious, we cannot do. Our only means of communication with objects are precisely this Sensibility and this Understanding, which give to objects the forms under which we know them.'

To the Dogmatist, therefore, Kant's reply is virtually the same as Hume's. He proves that the Understanding, from the very nature of its constitution, cannot know Things *per se*. The question then arises, Have we any other Faculty capable of knowing Things *per se?* The answer is decisive, We have *no* such Faculty.

The difference between Hume and Kant, when deeply considered, is this:—Hume said that the Understanding was treacherous, and, as such, it rendered Philosophy impossible. Kant said that the Understanding was not treacherous, but limited; it was to be trusted as far as it went, but it *could* not go far enough; it was so circumscribed that Philosophy was impossible.

This difference, slight as it may appear, led to important differences in the application of Kant's principles. The mendacity of Consciousness maintained by Hume led him to utter Scepticism in Philosophy and in Religion, as subjects on which reason could not pronounce. The veracity of Consciousness (as far as it went) maintained by Kant, was a firm and certain basis, though a limited one, on which to build Religion and Morals, as we shall see hereafter. Kant's critics do not in general appear to be aware of the consequences resulting from his exposition of the veracity of the Understanding. Yet as the battle was confessedly between him and Hume, it might have been suspected that he would not have left the field entirely to his antagonist.

The reader is, we trust, now prepared to follow with interest the leading points of Kant's analysis of the mind. In giving an indication of the *result* of that analysis, before giving the analysis itself, we hope to have so far interested the reader that he will read the analysis with sharpened attention; seeing whither dry details are leading, he will not deem them dry.

And first of the famous question: *How are synthetic judgments, à priori, possible?* This is the nut Kant has to crack with Hume. But first let us understand Kant's language. He divides all our judgments into two classes, analytic and synthetic. The analytic judgment is, as it were, but *a writing out* of our experience. When we say that a triangle is a figure with three sides, or that a body is extended, we are judging analytically; *i. e.* we are adding nothing

to our conception of body or triangle, we are only analyzing it. The synthetic judgment, on the contrary, is when we predicate some attribute of a thing, the conception of which does not involve that attribute: such as that a straight line is the shortest road between two points.

There are two classes of synthetic judgments: those *à posteriori* and those *à priori*. The former result from experience: *e. g.* Gold is ductible. We must absolutely know that gold *is* ductible before we can predicate ductility of gold. But the *à priori* judgments are independent of experience: *e. g.* a straight line is the shortest road between two points; which experience may *confirm*, but which is recognized as true independent of experience; above all, it has a character of universality which experience could not bestow; for though experience may show us how a straight line is in many instances the shortest road between two points, it cannot prove that there is absolutely no shorter road in any case.

Hume declared that our experience of Cause and Effect was simply an experience of antecedence and sequence; and that our attributing a cause to any effect was a mere matter of habit.

True, replied Kant, in the fact of antecedence and sequence, causation is not given; but inasmuch as causation is irresistibly believed in, the idea must have some source. If it is not given in the things observed, then must we seek it in the observer. In this fact of causation what have we? We have first antecedence and sequence; we have next an attribute of causation predicated of them. The first is given in our experience; the second is not given in our experience, but is independent of it. This second is therefore an *à priori* synthetic judgment. 'It must either have an *à priori* basis in the understanding, or be rejected as a chimera. For it demands that something, A, should be of such a nature that something else, B, should follow from it necessarily, and according to an absolutely universal law. We may certainly collect from phenomena a law according to which this or that *usually* happens, but the element of necessity is not to be found in it. Hence it is evident that to the synthesis of cause and effect belongs a dignity which is utterly wanting in any empirical synthesis; for it is no mere mechanical synthesis, by means of addition, but a dynamical one; that is to say, the effect is not to be cogitated as merely annexed to the cause, but as posited by and through the cause, and resulting from it.'* This therefore

* *Kritik*, b. i. c. ii. § 9 (Transl., p. 76).

is an *à priori* judgment. By means of such judgments we are not only able to say that one thing is the cause of another, but also we are enabled to make this wide generalization: *Every effect must have a cause.* Here, as in the proposition of a straight line being the shortest road between two points, we have an idea not given in experience, and an idea, the universality of which, experience could never verify.

We are thus led to assert that the Mind does add something to sense-experience; and that what it adds is not only independent of experience, but has the further character of certitude and universality, which experience can never claim. The certainty of experience is always limited; it never can have the character of universality, however rich it may be, for after a thousand years it may be proved erroneous. Thus, it was universally believed that all crows were black: a wide experience had established it—yet white crows were found; and experience was forced to acknowledge it had been in error. So with the motion of the sun, once universally believed, because founded upon experience. That which is to be held as irresistibly true, which shall be universally and necessarily maintained by all men, cannot have its origin in Experience, but in the constitution of the Mind. Hence the truth of Mathematics; not, as is so often said, because it is an abstraction of Forms and Relations, but because it is founded on the necessary laws of our mental constitution.

In these synthetic judgments, *à priori*, there is a ground of Certitude. The veracity of human reason reposes on that Certitude. Although therefore, says Kant, we can never know whether our conceptions of things, *per se*, are *adequate*, we can know what conceptions all men must form of them; although we cannot know if our knowledge has any objective truth, we can be certain of its subjective truth.

A principle of Certitude having been found, nothing further was necessary for its confirmation than to ascertain in how far this principle could be the basis of a science. Kant showed that it formed the basis of all science. People do not dispute, said he, respecting Mathematics or Logic, or the higher branches of Physics; and if they do dispute, they end by agreeing. But in metaphysics, disputes are endless. Why is this? Simply because Logic, Mathematics, and the higher branches of Physics are Sciences of Generalities; they do not occupy themselves with variable and contingent, but with the invariable and universal pro-

perties. Logic is composed of rules which are reducible to certain self-evident propositions. These propositions, reduced to their principles, are nothing more than the laws of the human mind. These laws are invariable because human nature is invariable. Mathematics is, in the same way, the study of certain invariable properties, which do not exist in nature, but which are conceptions of the mind, upon data furnished by nature, abstraction being made of all that is variable and uncertain in those data: *e. g.* the essential properties of an equilateral triangle, abstraction being made of any *body* which is triangular, and only the properties themselves being considered.

In physics, since the time of Galileo, men have seen that they are judges, not the passive disciples, of nature. They propose an *à priori* problem; and, to solve this problem, they investigate nature, they make experiments, and these experiments are directed by reason. It is reason that they follow, even when operating on nature; it is the principle of that reason which they seek in nature, and it is only in becoming rational that physics become a science. Again we find science reposing on the laws of the mind!

Thus, the laws which form the basis of logic, mathematics, and physics, are nothing less than the laws of the human mind. It is, therefore, in the nature of the human mind that the certitude of all the sciences is to be found; and the principles of this certitude are universality and necessity.

Psychology thus becomes the groundwork of all Philosophy; to Kant's Psychology we now address ourselves.

§ III. Kant's Psychology.

It has been shown that experience does not furnish the whole of our knowledge;

That what it does furnish has the character of contingency and variability;

That the mind also furnishes an element, which element is an inseparable condition of all knowledge; without it knowledge could not be;

That this element has the character of universality and necessity;

And that the principle of all certitude is precisely this universality and necessity.

It now remains for us to examine the nature of the mind, and to trace the distinctive characters of each element of knowledge, the

objective and the subjective. Instead of saying, with the Sensational School, All our knowledge is derived from the senses, Kant said, *Half* of all our knowledge is derived from the senses: and the half which has another origin is *indissolubly bound up with the former half*. Thus, instead of saying with the Cartesians, that, besides the ideas acquired through the sense, we have also certain ideas which are innate, and irrespective of sense; Kant said *all* our ideas have a double origin, and this twofold co-operation of object and subject is *indispensable* to all knowledge.

Let us clearly understand Kant's object. He calls his great work the *Critique of the Pure Reason*. It is an examination of the mind, with a view to detect its *à priori* principles. He calls these *pure* because they are *à priori*, because they are above and beyond experience. Having demonstrated that the mind has *some* pure principles—has some ideas which were never given in experience, and must therefore be *à priori*—he was led to inquire how many the mind possessed. In his *Critique* therefore we are only to look for the exposition of *à priori* principles. He does not trouble himself with investigating the nature of perception; he contents himself with the fact that we have sensations, and with the fact that we have ideas whose origin is not sensuous.

The Non-ego and the Ego, the objective world and the subjective mind, being placed face to face, the two co-operate to produce knowledge. We are however here only concerned with the subject. What do we discover in it? First, a Sensibility—a power of being affected by objects; this is what Kant calls the *Receptivity* of the mind: it is entirely passive. By it the representations of objects (*i. e.* sensations) are received. Secondly, an understanding (*Verstand*)—a faculty of knowing objects by means of the representations furnished by our Sensibility; this is an *active* faculty; in antithesis to Sensibility, it is a *Spontaneity*.

But our Sensibility, although passive, has its laws or conditions; and, to discover these conditions, we must separate that which is diverse and multiple in our sensations from that which remains invariably the same. The objects are numerous and various; the subject remains invariable. Kant calls the multiple and diverse element by the name of *material;* the invariable element by the name of *form*. If therefore we would discover the primary conditions of our Sensibility, we must discover the invariable elements in all sensations.

There are two invariable elements—*Space* and *Time*. They are

the forms of our Sensibility. Space is the form of our Sensibility, as external; Time the form both as internal and external.

Analyze sensations of external things as you will, you can never divest them of the form of Space. You cannot conceive bodies without Space; but you can conceive Space without bodies. If all matter were annihilated, you must still conceive Space to exist. Space therefore is the indispensable condition of sensation: the form of external Sensibility. It is not given in the materials of sensation; since you may conceive the objects annihilated, but cannot conceive the annihilation of Space. Not being given in the material, it must therefore constitute the form.

Similar reasoning proves that Time is also the form of our Sensibility, considered both as internal and as external. We cannot conceive things as existing, except as existing in Time; but we can conceive Time as existing, though all things were annihilated. Things subjected to our Sensibility are subjected to it in *succession;* that is the form of our Sensibility.

Such then are the two indispensable conditions of all sensation—the two forms with which *we* invest all the varied materials presented to us. It is evident that these two ideas of Space and Time cannot have been given in the materials, consequently are not deducible from experience; *ergo*, they are *à priori*, or, as Kant calls them, *pure intuitions*.

Having settled this point, he enters into his celebrated examination of the question, *Have Space and Time any objective reality?*

We need not reproduce his arguments, which however may be studied as fine dialectical exercises, but content ourselves with giving the result. That result is easily foreseen: If Space and Time are the forms of our Sensibility, and are not given in experience, not given in the materials presented, we may at once assume that they have no existence out of our Sensibility. Kant's reduction of Space and Time to formal elements of thought without corresponding objective reality, has been refuted by Herbert Spencer,* who has shown that the experience-hypothesis better explains the genesis of these conceptions. I must not venture to interrupt the exposition of Kant by any quotations, but will add my own conviction that Space and Time are objective realities in the sense that solidity, colour, etc., are objective realities; in other words, although, as we conceive them, they are purely subjective, and do not exist externally

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* *Principles of Psychology*, pp. 52–58.

as the Space and Time which exist in us, nevertheless *some* external reality there is, corresponding to our subjective state; precisely as there must be some corresponding objects of solidity, colour, etc., otherwise the conceptions of solidity, colour, etc., would never have been formed.

Returning now to the exposition, we must follow Kant's analysis of the forms of the Understanding. The forms of Sensibility being those of Space and Time, we must pass onwards to the higher operations of the mind. The function of the Understanding is to judge. It is eminently an active faculty; and by it the perceptions furnished through our sensibility are elevated into conceptions (*Begriffe*). If we had only Sensibility, we should have sensations, but no knowledge. It is to the Understanding that we are indebted for knowledge. And how are we indebted to it? Thus:—the variety of our sensations is reduced to unity—they are linked together and made to interpret each other by the understanding. A sensation in itself can be nothing but a sensation; many sensations can be nothing but many sensations, they can never alone constitute conceptions. But one sensation linked to another by some connecting faculty—the diversity of many sensations reduced to unity—the resemblances, existing amidst the diversity, detected and united together—is the process of forming a conception, and this is the process of the Understanding, by means of imagination, memory, and consciousness.

Our senses, in contact with the external world, are affected by objects in a certain determinate manner. The result Kant calls a representation (*Vorstellung*) in reference to the object represented; an intuition (*Anschauung*) in reference to the affection itself. These intuitions are moulded by the Understanding into conceptions; the sensation is converted into a thought.

The Understanding is related to Sensibility in the same way as Sensibility is related to external things. It imposes certain forms on the materials furnished it by Sensibility, in the same way as Sensibility imposed the forms of space and time upon objects presented to it. These forms of the Understanding are the laws of its operation.

To discover these forms we must ask ourselves, What is the function of the Understanding?—Judgment. How many classes of judgments are there? In other words, What are the invariable conditions of every possible judgment?—They are four: quantity, quality, relation, modality. Under one of these heads, every judgment may be classed.

A subdivision of each of these classes follows:—1. In judging of anything under the form of *quantity*, we judge of it as unity or as plurality; or, uniting these two, we judge of it as totality. 2. So of *quality*: it may be reality, negation, or limitation. 3. *Relation* may be that of substance and accident, cause and effect, or action and reaction. 4. *Modality* may be that of possibility, existence, or necessity.

Such are Kant's famous *Categories*. They are little better than those of Aristotle, which we before declared to be useless. For although the object of Kant was different from that of Aristotle, as Sir W. Hamilton points out;* the result was nothing but a cumbrous machinery incompetent to aid our investigations, although very seductive to the lovers of verbal distinctions.

In those Categories Kant finds the *pure forms* of the Understanding. They render thought possible; they are the invariable conditions of all conception; they are the investitures bestowed by the understanding on the materials furnished by sense.

By the Categories, he declares he has answered the second half of the question, How are synthetic judgments, *à priori*, possible? The synthetic judgments of the Categories are all *à priori*. But we have not yet exhausted the faculties of the mind. Sensibility has given us intuitions (perceptions), Understanding has given us conceptions, but there is still another faculty—the crowning faculty of Reason (*Vernunft*), the pure forms of which we have to seek.

Understanding is defined, the faculty of judging (*Vermögen der Urtheile*); Reason is the faculty of ratiocination—of drawing conclusions from given premises (*Vermögen der Schlüsse*). Reason reduces the variety of conceptions to their utmost unity. It proceeds from generality to generality till it reaches the *unconditional*. Every conception must be reduced to some general idea, that idea again reduced to some still more general idea, and so on till we arrive at an ultimate and unconditional principle, such as God.

Reason not only reduces particulars to a general, it also deduces the particular from the general: thus, when I say, 'Peter is mortal,' I deduce this particular proposition from the general proposition, 'All men are mortal;' and this deduction is evidently independent of experience, since Peter being now alive, I can have no experience to the contrary. These two processes of reducing a particular to some general, and of deducing some particular from a general, constitute ratiocination.

* *Discussions*, p. 25.

Reason has three pure forms; or, as Kant calls them, borrowing the term from Plato, *ideas*. These are wholly independent of experience; they are above Sensibility—above the Understanding; their domain is Reason, their function that of giving unity and coherence to our conceptions.

The Understanding can form certain general conceptions, such as man, animal, tree; but these general conceptions themselves are subordinate to a still more general idea, embracing all these general conceptions in the same way as the conception of man embraces several particulars of bone, blood, muscle, etc. The idea is that of the universe.

In the same way all the modifications of the thinking being—all the sensations, thoughts, and passions—require to be embraced in some general idea, as the ultimate ground and possibility for these modifications, as the noumenon of these phenomena. This idea is that of an *ego*—of a personality—of a soul, in short.

Having thus reduced all the varieties of the *ego* to an unconditional unity, viz. soul, and having also reduced all the varieties of the *non-ego* to an unconditional unity, viz. the world, his task would seem completed; yet, on looking deeper, he finds that these two ideas presuppose a third—a unity still higher, the source of both the world and of the *ego*—viz. God.

God, the soul, and the world are therefore the three ideas of reason, the laws of its operation, the *pure forms* of its existence. They are to it what Space and Time are to Sensibility, and what the categories are to Understanding.

But these ideas are simply *regulative:* they operate on conceptions as the Understanding operates upon sensations; they are discursive, not intuitive; they are never face to face with their objects: hence Reason is powerless when employed on matters beyond the sphere of Understanding; it can draw nothing but false, deceptive conclusions. If it attempts to operate beyond its sphere—if it attempts to solve the question raised respecting God and the world—it falls into endless contradictions.

'While we regard as conclusive Kant's analysis of Time and Space into conditions of thought,' says Sir W. Hamilton, 'we cannot help viewing his deduction of the Categories of the Understanding and the Ideas of speculative Reason as the work of a great but perverse ingenuity;' and we, who do not even regard the analysis of Space and Time as conclusive, may echo this judgment with greater emphasis.

§ IV. Consequences of Kant's Psychology.

We have given briefly the leading points in Kant's analysis of the mind. We have now to trace the consequences of that analysis.

The great question at issue was: *Have we, or have we not, any ideas which are absolutely, objectively true?* Before this could be answered, it was necessary to answer this other question:—*Have we, or have we not, any ideas independent of experience?* Because if we have not such ideas, we can never pretend to solve the first question: our experience can only be of that which is relative, contingent, *subjective;* and to solve the question, we must be in possession of absolute, necessary, *objective* truth.

Kant answered the second question affirmatively. His *Critique* was a laborious demonstration of the existence of ideas not derived from experience, and in no way resolvable into experience. But he answered the first question negatively. He declared that our ideas are essentially subjective, and cannot therefore have objective truth. He did not deny the existence of an external world; on the contrary, he affirmed it, but he denied that we can know it: he affirmed that it was essentially unknowable.

The world exists,—that is to say, the noumena of the various phenomena which we perceive, exist. The world is not known to us as it is *per se,* but as it is to *us*—as it is in our knowledge of it. It *appears* to us; only the appearance therefore can be known; the world must ever remain unknown, because, before being known, it must appear to us, *i. e.* come under the conditions of our Sensibility, and be invested with the forms of Space and Time, and come under the conditions of our Understanding, and be invested with the categorical forms.

Suppose object and subject face to face. Before the subject can be affected by the object—that is to say, before a sensation is possible—the object must be modified in the sensation by the forms of our Sensibility: here is one alteration. Then before sensation can become thought, it must be subjected to the categories of the Understanding: here is another alteration.*

Now, to know the object *per se—i. e.* divested of the modifications it undergoes in the subject—is obviously impossible; for it is the subject itself which knows, and the subject knows only under the conditions which produce these modifications.

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* Compare what was said on the transformation of impressions into sensations, pp. 514 *sq.*

Knowledge, in its very constitution, implies a purely subjective, *ergo* relative character. To attempt to transcend the sphere of the subjective is vain and hopeless; nor is it wise to deplore that we are 'cabin'd, cribb'd, confined' within that sphere from which we never can escape. As well might the bird, when feeling the resistance of the air, wish that it were *in vacuo*, thinking that there it might fly with perfect ease. Let us therefore content ourselves with our own kingdom, instead of crossing perilous seas in search of kingdoms inaccessible to man. Let us learn our weakness.*

First Result.—A knowledge of things *per se* (*Dinge an sich*) is impossible, so long as knowledge remains composed as at present; consequently Ontology, as a science, is impossible.

But, it may be asked, if we never knew noumena (*Dinge an sich*), how do we know that they exist? Their existence is a necessary postulate. Although we can only know the appearances of things, we are forced to conclude that the things exist. Thus, in the case of a rainbow, we discover that it is only the appearance of certain drops of water: these drops of water again, although owing their shape, colour, etc., to us, nevertheless exist. They do not exist *as* drops of water, because drops of water are but phenomena; but there is an unknown something which, when affecting our Sensibility, appears to us as drops of water. Of this unknown something we can affirm nothing, except that it necessarily exists because it affects us. We are conscious of being affected. We are conscious also that that which affects us must be something different from ourselves. This the law of causation reveals to us.

A phenomenon, inasmuch as it is an appearance, presupposes a noumenon—a thing *which appears*,—but this noumenon, which is a necessary postulate, is only a negation to us. . It can never be positively known; it can only be known under the conditions of sense and understanding, *ergo* as a phenomenon.

Second Result.—The existence of an external world is a necessary postulate, but its existence is only logically affirmed.

From the foregoing it appears that we are unable to know anything respecting things *per se;* consequently we can never predicate of our knowledge that it has objective truth.

But our knowledge being purely subjective and relative, can we have no certainty?—are we to embrace scepticism? No.

Third Result.—Our knowledge, though relative, is *certain*. We have ideas independent of experience; and these ideas have the cha-

* Compare Kant's fine passage at the close of the *Einleitung*.

racter of universality and necessity. Although we are not entitled to conclude that our subjective knowledge is completely true as an expression of the objective fact, yet we are forced to conclude that within its own sphere it is true.

Fourth Result.—The veracity of consciousness is established.

Fifth Result.—With the veracity of consciousness, is established the certainty of morals.

It is here we see the importance of Kant's analysis of the mind. Those who reproach him with having ended, like Hume, in scepticism, can only have attended to his *Critique of the Pure Reason,* which certainly does, as we said before, furnish a scientific basis for scepticism. It proves that our knowledge is relative; that we cannot assume things external to us to be as we conceive them: in a word, that Ontology is impossible.

So far Kant goes with Hume. This is the goal they both attain. This is the limit they agree to set to the powers of the mind. But the different views they took of the nature of mind led to the difference we before noted respecting the certainty of knowledge. Kant having shown that consciousness, as far as it extended, was veracious; and having shown that in consciousness certain elements were given which were not derived from experience, but which were necessarily *true;* it followed that whatever was found in consciousness independent of experience, was to be trusted without dispute.

If in consciousness I find the ideas of God, the world, and virtue, I cannot escape believing in God, the world, and virtue. This belief of mine is, I admit, practical, not theoretical; it is founded on a *certainty,* not on a *demonstration;* it is an ultimate fact, from which I cannot escape—it is not a conclusion deduced by reason.

The attempt to demonstrate the existence of God is an impossible attempt. Reason is utterly incompetent to the task. The attempt to penetrate the essence of things—to know things *per se*—to know noumena—is also an impossible attempt. And yet that God exists, that the world exists, are irresistible convictions.

There is another certitude, therefore, besides that derived from demonstration, and this is moral certitude, which is grounded upon belief. I cannot say, 'It is morally certain that God exists,' but I must say, 'I am morally certain that God exists.'

Here then is the basis for a *Critique of the Practical Reason,* an investigation into the Reason, no longer as purely theoretical, but as practical. Man is a being who acts as well as knows. This activity must have some principle, and that principle is *freedom of will.*

As in the theoretical part of Kant's system we saw the supersensual and unconditioned presupposed as existent (under the name of things *per se*), but not susceptible of being known or specified; so in this practical part of the system we find the principle of freedom altogether abstract and indeterminate. It realizes itself in acts.

In the very constitution of his conscience, man discovers the existence of certain rules which he is imperatively forced to impose upon his actions; in the same way as he is forced by the constitution of his reason to impose certain laws upon the materials furnished him from without. These moral laws have likewise the character of universality and necessity. The idea of virtue never could be acquired in experience, since all we know of virtuous actions falls short of this ideal which we are compelled to uphold as a type. The inalterable idea of justice is likewise found, *à priori*, in the conscience of men. This indeed has been denied by some philosophers; but all *à priori* truths have been denied by them. They cite the cruel customs of some savage races as proofs that the idea of justice is not universal.* Thus, some tribes are known to kill their old men when grown too feeble; and they test their strength by making these old men hold on to the branch of a tree, which is violently shaken, and those that fall are pronounced too weak to live. But even here, in spite of the atrocity, we see the fundamental ideas of justice. Why should they not abandon these aged men to all the horrors of famine and disease? and why put them to a test? Look where you will, the varied customs of the various nations peopling the earth will show you different notions of what is just and what is unjust; but the *à priori* idea of justice—the moral law from which no conscience can be free—*that* you will find omnipresent.

We regret that our space will not permit us to enter further into Kant's system of morality, and his noble vindication of the great idea of duty. But enough has been said to show the dependence of his *Critique of the Practical Reason* upon the principles of his *Critique of the Pure Reason;* a dependence which some hasty critics have pronounced an unphilosophical compromise.

§ V. Examination of Kant's Fundamental Principles.

Kant's system presents three important points for our consideration:—

* Kant alludes to Locke.

1. It assigns a limit to the powers of reason, and clearly marks out the domain of scientific inquiry. In this it is sceptical, and furnishes scepticism with terrible weapons.

2. It proclaims that knowledge has another origin besides experience; and that the ideas thus acquired are necessarily true. In this the veracity of consciousness is established, and scepticism is defeated.

3. It founds upon this veracity of consciousness a system of morals; the belief in a future state, and in the existence of God.

In the course of our exposition we abstained from criticism; certain that it would lead us far beyond our limits to venture on an examination of any but the fundamental principles. The three points above mentioned will, if closely examined, be found to present only one calling for discussion here, and that one is the second.

For the admission contained in the first—viz. that we are unable to know things in themselves—gives up Philosophy as a matter beyond the reach of human intelligence. Scepticism is made the only result of ontological speculation. But we are guarded against such a conclusion entering deeply into practical life, by the demonstration of our having ideas independent of experience. This is the second point. Were this second point to fall to the ground, nothing but scepticism could remain. With the second point must stand or fall the third.

The second point therefore becomes the central and vital point of Kant's system, and must engage our whole attention. All such subsidiary criticism as is current in Germany and France, respecting the impossibility of separating the objective from the subjective elements of a knowledge which is confessedly both subject and object in one, may be safely set aside. Let the possibility be granted; the vital question is not connected with it. The same may be said of the illogicality of Kant's assuming for the practical reason that which he denies to the pure reason. The vital point in his system is, we repeat, the question as to whether we have ideas independent of experience. This is all-important.

And what gives it its importance? The conviction that if we are sent into this world with certain connate principles of truth, those principles cannot be false; that if, for example, the principle of causality is one which is antecedent to all experience, and is inseparable from the mind, we are forced to pronounce it an ultimate truth.

Let us meditate on this question. As Kant confessedly was led to his own system by the speculations of Hume on causation, and as that is the most important of all the *à priori* ideas with which the mind is supposed to be furnished, we will content ourselves with examining it. If that be found dependent on experience, all the *à priori* ideas must be likewise given up. This is the nut we have to crack; its kernel is the kernel of the whole question. Let us first consider these Necessary Truths, as Dr. Whewell calls *à priori* ideas.

That two parallel lines can never meet is a Necessary Truth. That is to say, it necessarily follows from the definition of a straight line. To call it, however, an *à priori* truth, a truth independent of experience, seems to us a very imperfect analysis of the mind's operations. An attempt is made to prove that the idea could never have been gained through experience, because it commands universal assent, and because experience itself could never give it necessity. Dr. Whewell's argument is, that let us follow two parallel lines out as far as we can, we are still unable to follow them to infinity: and, for all our experience can tell us to the contrary, these lines may possibly begin to approach immediately beyond the farthest point to which we have followed them, and so finally meet. Now what ground have we for believing that this possibility is not the fact? In other words, how do we know the axiom to be absolutely true? Clearly *not* from experience, says Dr. Whewell, following Kant.

We answer, Yes; clearly *from* experience. For our experience of *two parallel* lines is precisely this: they *cannot* enclose space. Dr. Whewell says that, for all our experience can tell us to the contrary, the lines may possibly begin to approach each other at some distant point; and he would correct this imperfect experience by *à priori* truth. The case is precisely the reverse. The tendency of the mind unquestionably is, to fancy that the two lines *will* meet at some point; it is *experience* which corrects this tendency. There are many analogies in nature to suggest the meeting of the two lines. It is only our reflective experience which can furnish us with the proof which Dr. Whewell refers to ideas independent of all experience. What proof have we that two parallel lines cannot enclose space? Why this: as soon as they *assume the property of enclosing space,* they *lose the property of parallelism:* they are no longer *straight* lines, but *bent* lines. In carrying out imaginatively the two parallel lines into infinity, we have a ten-

dency to make them approach; we can only correct this by a recurrence to our experience of straight lines: we must call up a distinct image of a straight line, and then we see that two such lines cannot enclose space.

The whole difficulty lies in the clearness or obscurity with which the mind makes present to itself past experience. 'Refrain from rendering your terms into ideas,' says Herbert Spencer, 'and you may reach any conclusion whatever. The whole is equal to its part, is a proposition that may be quite comfortably entertained so long as neither wholes nor parts are imagined.'* But no sooner do we make present to our minds the meaning of parallel lines, than in that very act we make present the impossibility of their meeting, and only as the idea of these lines becomes wavering, does the idea of their meeting become possible.

'Necessary truths,' says Dr. Whewell, 'are those in which we not only learn that the proposition *is* true, but see that it *must* be true; in which the negation is not only false, but impossible; in which we cannot, even by an effort of the imagination, or in a supposition, conceive the reverse of that which is asserted. That there are such truths cannot be doubted. We may take, for example, all relations of Number. Three and two make five. We cannot conceive it otherwise. We cannot by any freak of thought imagine three and two to make seven.'

That Dr. Whewell cannot by any freak of thought *now* imagine three and two to make seven, is very likely; but that he could *never* imagine this, is untrue. If he had been asked the question before he had *learned* to reckon, he would have imagined seven quite as easily as five: that is to say, he would *not* have known the relation of three and two. Children have no intuitions of numbers: they learn them as they learn other things. 'The apples and the marbles,' says Herschel, 'are put in requisition, and through the multitude of gingerbread-nuts their ideas acquire clearness, precision, and generality.' But though, from its simplicity, the calculation of three added to two is with a grown man an instantaneous act; yet if you ask him suddenly how many are twice 365, he cannot answer till he has reckoned. He might certainly by a very easy 'freak of thought' (*i. e.* by an erroneous calculation) imagine the sum-total to be 720; and although when he repeats his calculation, he may discover the error, and declare 730 to be

* *Principles of Psychology*, p. 49.

the sum-total, and say, 'It is a Necessary Truth that 365 added to 365 make 730,' we should not in the least dispute the necessity of the truth, but presume that he himself would not dispute that he had arrived at it through experience, namely, through his knowledge of the relations of numbers, a knowledge which he remembers to have laboriously acquired when a boy at school.

The foregoing remarks having, we trust, established that the truths of Geometry and Arithmetic, which form one class of the so-called Necessary Truths, are not obtained *à priori*, independently of Experience, we pass on to the other class, which we would call Truths of Generalization.

Our example shall be that chosen by Kant: 'Every effect must have a cause.' This is not a mere *writing out* of our conceptions: it is not a mere explanation, in different terms, of what we mean. It is a wide generalization. Experience can only be experience of individual causes and effects; and although in our conception of an effect the conception of a cause is certainly involved, and in so far the judgment may be supposed an analytic judgment, yet if we look closer, the ambiguity will disappear. The *word* effect implies as a correlative the *word* cause. But the *Thing* we see before us does not imply the existence of some *other Thing* which *caused* it; and our judgment that it must have had an antecedent cause, is purely synthetic.

When we assert that every effect must have a cause, we assert that which no experience can have warranted. Is the idea therefore acquired through some other channel? No; and the upholders of the doctrines of Innate Ideas, Fundamental Laws of Belief, Categories of the Understanding, and Necessary Truths, appear to us to labour under a confusion of thought which a very little well-directed analysis might have cleared up. The confusion is this:—Our experience is obviously incapable of guaranteeing the truth of any universal and necessary idea. But to assume therefore that the idea is independent of experience, is to forget that what experience may not *guarantee*, it may *suggest*; and the universality and necessity of our ideas, is nothing more nor less than the suggestions of the understanding, which by the law of its operation generalizes from particulars, and converts them into universals. We will presently explain this more fully; let us now hear Kant, who distinguishes a pure cognition from an empirical cognition by this mark of necessity and universality. 'Experience no doubt teaches us that this or that object is constituted in such and such a manner,

but not that it could not possibly exist otherwise.' . . . 'Empirical universality is only an arbitrary extension of the validity from that which may be predicated of a proposition valid in most cases to that which is asserted of a proposition which holds good in all. When, on the contrary, strict universality characterizes a judgment, it necessarily indicates another peculiar source of knowledge, namely, a faculty of cognition *à priori*. Necessity and strict universality, therefore, are infallible tests for distinguishing pure from empirical knowledge, and are inseparably connected with each other.'* And elsewhere: 'If we thought to free ourselves from the labour of these investigations by saying, "Experience is constantly offering us examples of the relation of cause and effect in phenomena, and presents us with abundant opportunity of abstracting the conception of cause, and so at the same time of corroborating the objective validity of this conception"—we should in this case be overlooking the fact that the conception of cause cannot arise in this way at all; that on the contrary it must either have a basis in the Understanding, or be rejected as a mere chimera. For this conception demands that something (A) should be of such a nature that something else (B) should follow from it necessarily, and according to an absolutely universal law. We may certainly collect from phenomena a law, according to which this or that *usually* happens, but the element of necessity is not to be found in it. Hence it is evident that to the synthesis of cause and effect belongs a dignity which is utterly wanting in any empirical synthesis.'†

Referring to what was said in discussing Hume's theory of causation, we may pass on to Dr. Whewell's re-statement of Kant's views:—

'That this idea of cause is not derived from experience, we prove (as in former cases) by this consideration: that we can make assertions, involving this idea, which are rigorously necessary and universal; whereas knowledge derived from experience can only be true as far as experience goes, and can never contain in itself any evidence whatever of its necessity. We assert that "every Event must have a Cause:" and this proposition we know to be true, not only probably and generally and as far as we can see; but we cannot suppose it to be false in any single instance. We are as certain of it as we are of the truths of arithmetic and geometry.

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* *Einleitung*, § ii. (Transl., p. 3).

† *Transcendental. Logik*, § 9 (Transl., p. 76).

We cannot doubt that it must apply to all events, past, present, and to come, in every part of the universe, just as truly as to those occurrences which we have ourselves observed. *What* causes produce what effects;—what is the cause of any particular event; what will be the effect of any peculiar process; these are points on which experience may enlighten us. But that every event must have *some* cause, Experience cannot prove any more than she can disprove. She can add nothing to the evidence of the truth, however often she may exemplify it. This doctrine then cannot have been acquired by her teaching: and the Idea of Cause which the doctrine involves, and on which it depends, cannot have come into our minds from the region of observation.'*

There is one minor point in this argument which we must notice first. Dr. Whewell says that the proposition 'Every event must have a cause' cannot possibly be false in any one instance. We think there is one, which he himself would admit; but to make it clear, we must substitute an equivalent for 'event.' The abstract formula of causation is this: 'Every existence presupposes some Cause of its existence: *ex nihilo nihil fit.*' And this formula is employed against the atheists, to prove that the world could not have made itself out of Nothing, *ergo* it must have had a Cause. Now the obvious answer has often been given, namely, that the Cause itself must have had a Cause, and so on *ad infinitum*. Nevertheless, as reason repugns such an argument, and as it declares that *somewhere* the chain of causes and effects must stop, in that very declaration it falsifies the formula of causation—'*Every* existence must have a cause.'

Let not this be thought quibbling; it is only an exposure of the weakness of the theory of causation. If that theory be correct—if the formula is a necessary Truth, objectively as well as subjectively, the argument against atheism falls to the ground. For, would the atheist argue, this is the dilemma: either the chain of causes and effects must be extended to infinity; or you must stop somewhere, and declare that the ultimate Existence has no cause. In the first case you fall into unlimited scepticism; in the second you fall into atheism, because the world is an Existence of which we are assured: why, then, is not *it* the ultimate Existence? You have no right to assume any prior cause; if you must stop somewhere, it is more rational to stop there.

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* *Philos. Ind.*, etc., vol. i. p. 159.

This dilemma admits of but one escape-hole, namely, the denial of the formula 'Every existence presupposes a cause' being anything more than a psychological law. Curiously enough, the only loophole is in the doctrine maintained by David Hume—a doctrine for so many years supposed to be the inlet of theological scepticism!

Our belief in the formula 'Every event must have a cause' is founded entirely on experience: is, indeed, nothing more than our experience generalized.

To prove this, we will consider a single case of causation. A child burns his finger in the candle; he then believes that a candle will *always* burn his fingers. Now we are asked how it is that the child is led to believe that the candle will always burn his finger; and the answer usually afforded is, that 'he is irresistibly led to believe in the uniformity of nature;' in other words, the idea of causality is a *fundamental idea*.

We answer, The child believes the candle will burn, because the experience he has of a candle is precisely *this experience* of its burning properties. Before he had burnt his finger, his experience of a candle was simply of a bright thing which set paper alight. Having now *extended his experience*, the candle is to him a bright thing which sets paper alight, and which causes pain to his finger when placed in contact with it.*

According to the well-known law of association, the flame of a candle, and pain to the finger applied to it, are united, and form one experience. This particular act of causation is therefore nothing but a simple experience to the child; and for the perfection of this experience it is in nowise needful to assume that the child has any belief in the 'connection of events,' or in the 'uniformity of the laws of Nature.' No fundamental idea is necessary for the *particular* belief.† Is it then necessary for the belief in the general proposition—'Every effect must have a cause'?

When Kant and the Kantists say that no particular act of causation can be inferred *à priori* (such, for example, as that fire will melt the solid wax); but that nevertheless causality itself can be inferred *à priori, i. e.* we are constrained to believe that *some-*

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* See p. 409 *sq.*, where the argument is stated more fully.

† This is denied by the thinkers whom we are now combating: they assume that the fundamental idea is necessary; but this is a mere assumption made for the purpose of saving their theory, an assumption of the very point at issue.

thing will follow the application of fire to the wax, and *this à priori* judgment is independent of experience,—they seem to me to fall into the error of confounding the general with the particular. No general proposition is possible except as an expression of particular propositions; and all particular propositions are the expression of particular experiences. 'That all lions are carnivorous' is only intelligible as a general proposition after one or more lions have been recognized as carnivorous; that 'every effect must have a cause' is only conceivable after many particular experiences of causes and effects. No particular act of causation can be inferred *à priori*, because for each particular inference we need the basis of particular experience; but general causation seems possible to be inferred *à priori*, because in the full-statured mind general causation has a basis of general experience. I must know that fire does melt wax, before I can infer that it will melt wax; but I can infer that fire will do something to wax, *after* my general experience of fire is, that it has always done something to bodies. This *general* inference is founded on and limited by *general* experience, in the same way as *particular* inferences are founded on *particular* experience. The uncultured mind will be as powerless to deduce the general inference, as the cultured mind is, to deduce the particular inference, *à priori;* and so true is this, that only philosophical thinkers are capable of steadily believing in that causality which Dr. Whewell designates as a fundamental idea.

Thus, belief in particular laws of causation is no more than *belief in our experience;* and if we are asked why we believe that our future experience will resemble the past, we answer, because we have no other possible belief of things than that which is formed by experience: we cannot possibly believe the candle as *not* burning us in future, because our experience of a candle has been, that it *does* burn, and our beliefs cannot transcend the experience which made them.

As to the belief in universal causation, we may prove in various ways that it is the result of a mere act of generalization; and this very act itself is strictly limited by experience: that is to say, we are led by the laws of our mind to judge of the unknown according to the known. Thus, having found every event which has come under our cognizance produced by some cause, we conclude that every possible event must have a cause. We judge of the unknown by the known. Familiar illustrations of this generalizing tendency are those rash judgments formed of nations and of classes, and

founded on the experience of a single fact. Thus we once heard it gravely asserted, that '*all* French babies had long noses.' The person asserting it had seen a French baby with a long nose. Now the only conception of a French baby in this person's mind was that of a baby with a long nose. That was the type according to which all unseen, unknown babies were judged. Not being a very reflective person, he could not divest himself of his conception, and he could not believe that his conception was not true of all French babies. Had he never seen other French babies, he would perhaps have died in the belief that they all had long noses; unless some better-informed person had corrected this conception by his larger experience. So, if we had only the experience of one fact of causation, we should always believe in that fact—we should always believe that all candles would burn. To make many similar experiences of the conjunction of cause and effect, is not only to have many beliefs in particular acts of causation, it is also to collect materials for a wide generalization, and from these known conjunctions to pronounce that formula of universal conjunction applied to unknown and yet unborn events.

This latter process however is performed by few. All believe irresistibly in particular acts of causation. Few believe in universal causation; and those few not till after considerable reflection. Philosophers indeed assure us that this belief is universal; that it is an *instinct;* a law of the mind; a Fundamental Idea. If philosophers would take the trouble to inquire amongst intelligent people, they would find that, so far from the belief in question being instinctive and irresistible, the great majority have no consciousness at all of such an instinct—the belief never having once presented itself to their minds—the proposition requiring a great deal of explanation and argument before it can be received; and amongst those persons many would absolutely refuse to admit the truth of the proposition. Those who live only amongst philosophers will doubt this. We can however declare that it has more than once come within our experience. We have argued with a student of chemistry, whom we found it impossible to convince that the law 'Every event has some cause' is universal. He not only could conceive it to be otherwise in the moon; but he looked upon our argument as an unwarrantable assumption. The mystery of this was, that he had never read any metaphysics, and had but mediocre powers of ratiocination. What shall we say to an instinctive belief, which, unlike all other instinctive beliefs, does not

spontaneously present itself to our consciousness; and when presented, is with the utmost difficulty accepted; and accepted only by some? Compare this with any other instinctive belief—that in the existence of an external world, for instance—and see what characters the two have in common. Ask a boor if he believe in the existence of the world, and he will think you mad to ask him. Ask an ordinary man if he believe that every effect must have a cause; and the chances are, that he will tell you he does not know; you will find it difficult to make him understand the necessity.

Nay, to leave ordinary men, and to confine ourselves to philosophers, amongst them we shall find that, with respect to one class of phenomena, more than one-half of the thinking world is firmly convinced that every effect does *not* imply a cause: the class of phenomena referred to are those of human volitions. All those who espouse the doctrine of Freedom of the Will declare that all our volitions are self-caused,—that is to say, our volitions are not caused by anything external to themselves, not determined by any prior fact.

If, then, speculative men can be led to believe that one large class of phenomena is not amenable to the law of cause and effect, what becomes of the *universality* of causation? And if speculative men can conceive the laws of cause and effect to be absent from some phenomena, and ordinary men do not conceive these laws to be universally applicable, what becomes of the *necessity?* And if the mass of mankind require a considerable quantity of argument and explanation to make them understand the proposition, what becomes of the *instinctive belief?*

It is argued that a belief in a particular act of causation is only possible on the assumption of a fundamental idea of causality inherent in the mind; that, although a child may never have had the formula 'Every effect must have a cause' presented to his mind, nevertheless this formula is *implicitly* in his mind, otherwise he would have no reason for believing in the particular act; it must exist as a fundamental idea. We might as rationally argue that a child cannot have an idea of a man without previously having a fundamental idea of humanity.

The fallacy lies in this: the fundamental idea of causality is a generalization. Now, of course, the general includes the particulars; but though it *includes*, yet it does not *precede* them, and the error is, in supposing that it must and does precede them. A boy, as Locke says, knows that his whole body is larger than his finger;

but he knows this from his perceptions of the two, not from any knowledge of the axiom that the 'whole is greater than a part.' Dr. Whewell would say that he could not have such knowledge unless he had the fundamental idea; whereas, we side with Locke in asserting that the mind in such cases never *begins* with generalities, but *ends* with them; and to say, that because the general axiom implies the particular instance, or that the particular instance implies the general axiom, therefore the axiom is independent of experience, is to cheat oneself with words.

The belief in causation is belief founded upon the experience of particular acts of causation.

The irresistible tendency we have to anticipate that the future course of events will resemble the past, is simply that we have experience *only* of the past, and, as we cannot *transcend* our experience, we cannot conceive things really existing otherwise than as we have known them. From this we draw a conclusion strikingly at variance with the doctrine maintained by Kant and Dr. Whewell. We say, that the very fact of our being compelled to judge of the unknown by the known—of our irresistibly anticipating that the future course of events will resemble the past—of our incapacity to believe that the same effects should not follow from the same causes —this very fact is a triumphant proof of our having no ideas *not* acquired through experience. If we had *à priori* ideas, these, as independent of, and superior to, all experience, would enable us to judge the unknown according to some *other* standard than that of the known. But no other standard is possible for us. We cannot by any effort believe that things will not always have the properties we have experienced in them; as long as they continue to exist, we must believe them to exist as we know them.

Although belief in particular acts of causation is irresistible and universal, yet belief in the general proposition '*Every* effect must have a cause' is neither irresistible nor universal, but is entertained only by a small portion of mankind. Consequently the theory of *à priori* ideas independent of all experience, receives no support from the idea of Causality.

In a 'Letter to the Author of the *Prolegomena Logica*,' Dr. Whewell has re-stated his views, to meet the objections of his critics; and as this is the latest development of the Kantian doctrine which I have seen, it may not be uninstructive to consider it.

Dr. Whewell's main positions are, that Necessary Truths, or Fundamental Ideas, are independent of experience, and are intuitions,

which are seen not only to be true, but *necessarily* true, because their contraries are inconceivable. The only condition presupposed is, that the Ideas be clearly conceived. He says: 'I lay stress on the condition that the Ideas must be *clearly and distinctly possessed*. The Idea of Space must be quite clear in the mind, or else the Axioms of Geometry will not be seen to be true: there will be no *intuition* of their truth; and for a mind in such a state, there can be no Science of Geometry. A man may have a confused and perplexed, or a vacant and inert state of mind, in which it is not clearly apparent to him, that two straight lines cannot enclose a space. But this is not a frequent case. The Idea of Space is much more commonly clear in the minds of men than the other Ideas on which science depends, as Force or Substance. It is much more common to find minds in which these latter Ideas are not so clear and distinct as to make the Axioms of Mechanics or of Chemistry self-evident. Indeed, the examples of a state of mind in which the Ideas of Force or of Substance are so clear as to be made the basis of science, are comparatively few. They are the examples of minds scientifically cultivated, at least to some extent. Hence, though the Axioms of Mechanics or of Chemistry may be, in their own nature, as evident as those of Geometry, they are not evident to so many persons, nor at so early a period of intellectual or scientific culture. And this being the case, it is not surprising that some persons should doubt whether these Axioms are evident at all; I should think that it is an error to assert that there exist, in such sciences as Mechanics or Chemistry, Fundamental Ideas fit to be classed with Space, as being, like it, the origin of Axioms.'

Aware that many of these intuitive ideas are so far from being universally acknowledged that many persons can conceive the contraries, he adds:—

'This difficulty has been strongly urged by Mr. Mill, as supporting his view, that all knowledge of truth is derived from experience. And in order that the opposite doctrine, which I have advocated, may not labour under any disadvantages which really do not belong to it, I must explain, that I do not by any means assert that those truths which I regard as necessary, are all equally evident to common thinkers, or *evident to persons in all stages of intellectual development*. I may even say, that some of those truths which I regard as necessary, and the necessity of which I believe the human mind to be capable of seeing, *by due preparation and thought*, are still such, that this amount of preparation and thought is rare and peculiar;

and I will willingly grant, that to attain to and preserve such a clearness and subtlety of mind as this intuition requires, *is a task of no ordinary difficulty and labour.*'

What, it may be asked, is all this preparation, and labour, but experience? If these Fundamental Ideas are 'Intuitions' which cannot be given by experience, but are above and beyond it, how is all this experience needed before these Necessary Truths can be seen to be true? Dr. Whewell is ready with his answer:—

'That some steady thought, and even some progress in the construction of Science, is needed in order to see the necessity of the Axioms thus introduced, is true, and is repeatedly asserted and illustrated in the *History of the Sciences.* The necessity of such Axioms is seen, but it is not seen at first. It becomes clearer and clearer to each person, and clear to one person after another, as the human mind dwells more and more steadily on the several subjects of speculation. *There are scientific truths which are seen by intuition, but this intuition is progressive.* This is the remark which I wish to make, in answer to those of my critics who have objected that truths which I have propounded as Axioms, are not evident to all.'

That this is no answer at all, but is virtually a concession of the very point in dispute, will be seen by an attentive perusal of the following passage, wherein he brings his new form of the doctrine into greater distinctness:—

'An able writer in the *Edinburgh Review* (No. 193, p. 29) has, in like manner, said, "Dr. Whewell seems to us to have gone much too far in reducing to necessary truths what assuredly the generality of mankind will not feel to be so." It is a fact which I do not at all contest, that the *generality of mankind* will not feel the Axioms of Chemistry, or even of Mechanics, to be necessary truths. But I had said, not that the generality of mankind would feel this necessity, but (in a passage just before quoted by the Reviewer) that the mind under certain circumstances *attains a point of view* from which it can pronounce mechanical (and other) *fundamental truths to be necessary in their nature, though disclosed to us by experience and observation.*'

If these truths, said to be intuitive and independent of experience, are by Dr. Whewell confessed to be 'disclosed by experience,' there can be but one point of separation between him and his critics; and, if I have understood him aright, that point is the character of 'necessity,' which, in common with Kant, he ascribes to these truths. The fundamental ideas, when seen, are seen to be not only true, but

necessarily true; and in this necessity lies their distinctive characteristic.

I conceive that no such distinction whatever can be made out between truths which are necessary and truths which are contingent. All truth is necessary truth. Although all *opinions* are by no means of one character, some being evident, some probable, some very uncertain; yet all truths are true. That 'fire burns' is a truth as 'necessary' as that two parallel lines cannot enclose space. That sulphur has a greater affinity for iron than for lead, is a truth as 'necessary' as that the whole is greater than a part. That iron-rust is owing to the action of oxygen, is as 'necessary' a truth as that two and two make four. It is our knowledge which is contingent, not the truth itself. We *may* be in error when we believe the fact of sulphur's greater affinity for iron than for lead; in matters so ill-understood as chemical actions, error is very conceivable, and our supposed truth *may* turn out a misconception; but *if* the relation be truly stated, the truth is as 'necessary' as that two and two make four. The whole question therefore that can be raised is: Is the asserted relation true? and not: Is the truth necessary?

To make this clearer, let us, instead of the proposition 'two and two make four,' substitute 'seventy-two and one hundred and forty make two hundred and twelve.' In the one case error is impossible; by no freak of thought can we conceive two and two as making five: the truth is perceived directly, and the inconceivability of the contrary is confessed. In the latter case error is very possible; unless a careful calculation be made, the mind may fall into error, *i.e.* conceive the contrary of what is true. But in each case the truth expressed is the relation of numbers, which we ascertain by experience. So also the proposition 'fire burns' is a necessary truth, the contrary to which is as inconceivable as the contrary of 'two parallel lines can never enclose space.' For although we can imagine it 'possible' that fire, under some circumstances, should not burn, we can only imagine it by mentally substituting for fire some *other* thing called by that name, just as we can only imagine parallel lines enclosing space by mentally bending the lines, and making them *other* than parallel.

Truths are nothing but perceived relations; some of these relations are so simple, or so universally presented to our experience, that we cannot conceive them to be otherwise; and thus no freak of thought will enable us to conceive fire not burning, two and two making five, or parallel lines enclosing space; while other relations

are so complicated, or so unfamiliar, that we very easily conceive the possibility of their being otherwise. The oxidation of substances is so familiar to the chemist, that he cannot conceive what to the general public is very conceivable; the relations of lines and surfaces are so familiar to the geometer, that he cannot conceive the contrary of Euclid's propositions: to him they are irresistible truths; but he can remember the time when they were by no means irresistible. Dr. Whewell explains this difference by the difference in the clearness with which the geometer 'possesses the Idea of Space,' a clearness only to be obtained through great labour and training of the mind; and we think no philosopher ever propounded any other explanation, certainly no philosopher belonging to the school which derives all our ideas from experience.

The distinction then between the so-called Necessary and Contingent Truths is not, that the former are independent of experience, and are truths seen to be *necessarily* true, while the latter are seen to be contingently true, the contraries being conceivable. All truths are seen to be necessarily true, if they are seen to be true at all; and the character of contingency is not applicable to the relations expressed in certain formulas, but solely to the modes in which we got at those formulas: the contingency of 'seventy-two and one hundred and forty making two hundred and twelve' is the liability of our miscalculating; and the proposition is a contingent one until we have so checked our calculation as to be certain we have ascertained the true relations. Thus it is held, that all animals with incisor teeth are carnivorous; we have ascertained it by our universal experience of carnivorous animals; but, strong as the presumption is that the relation is true, we are forced to consider it a contingent truth, because there is a possibility of our experience some day detecting an exception; just as exceptions have been detected to the general relation between comparative length of the intestine in herbivorous, and shortness of it in carnivorous, animals. But we never call the proposition 'a whole is greater than its part' a contingent truth, because no extension of experience could alter relations so simple and so universal; we cannot call 'fire burns paper' a contingent truth, because no extension of experience can alter relations so simple: if, by way of exception, a case of incombustible paper be exhibited, we know that the original proposition meant ordinary paper, and not paper of different properties. We cannot call the truth 'sugar is sweet' contingent, because any extension of our experience which made us acquainted with sugar not sweet, would

bring forward some other kind of thing than that which we designate by the name of sugar. We cannot call the truth 'iron is heavy' contingent. We can call no truths contingent except those which express relations either complicated or unfamiliar; simplicity of relation implying directness of perception, and universality of experience coercing the mind into uniformity of expectation. The Fundamental Ideas which Dr. Whewell distinguishes as Necessary Truths are nothing more than ideas framed in our minds by the uniformity of our experience. And thus we return to the old position, that experience, and experience alone, is the source of all ideas.

If the foregoing arguments are valid, what becomes of Kant's system? We are forced to conclude, that inasmuch as his stronghold—the existence of *à priori* ideas—cannot sustain attack, the entrance of the enemy Scepticism is inevitable. Kant was not a sceptic; but he deceived himself in supposing that his system was any safeguard from Scepticism.

The veracity of Consciousness, which he had so laboriously striven to establish, and on which his *Practical Reason* was based, is only a relative, subjective veracity. Experience is the only basis of Knowledge; and Experience leads to Scepticism.

NINTH EPOCH.

ONTOLOGY RE-ASSERTS ITS CLAIM.—THE DEMONSTRATION OF THE SUBJECTIVITY ONCE MORE LEADS TO IDEALISM.

CHAPTER I.

FICHTE.

§ I. Life of Fichte.

JOHANN GOTTLIEB FICHTE was born at Rammenau, a village lying between Bischofswerda and Pulsniz, in Upper Lusatia, on the 19th May, 1762.*

His childhood, of which many touching anecdotes are related, was signalized by extraordinary intellectual capacity and great moral energy. He was a precocious child, and long before he was old enough to be sent to school he learned many things from his father, who taught him to read, and taught him the pious songs and proverbs which formed his own simple stock of erudition. With these various studies was mixed an enchanting element—the stories of his early wanderings in Saxony and Franconia, stories to which young Johann listened with never-tiring eagerness. It was probably the vague longings which these recitals inspired, that made him wander into the fields, quitting his companions, boisterous in mirth, to roam away and enjoy the luxury of solitude, there to give vent to the indulgence of those unspeakable longings. This pale and meditative child is at ease in solitude. He stands for hours, gazing into the far distance, or in mournful yearning at the silent sky over-arching him. The sun goes down, and the boy returns home melancholy with the twilight. He does this so constantly that neighbours remark it; comment on it; and, in after-years, when that boy has become a renowned man, they recur to it with sudden pleasure, not forgetting also that they had 'always said there was something remarkable in the boy.'

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* See the biography by Fichte's son—*Fichte's Leben und literarischer Briefwechsel*, 2 vols., 1836.

Fichte's progress was so rapid that he was soon entrusted with the office of reading family prayers; and his father cherished the hope of one day seeing him a clergyman. An event curious in itself, and very important in its influence on his subsequent career, soon occurred, which favoured that hope, and went far to realize it. But before we relate it we must give a touching anecdote, which exhibits Fichte's heroic self-command in a very interesting light.*

The first book which fell into his hands after the Bible and Catechism, was the renowned history of *Siegfried the Horned,* and it seized so powerfully on his imagination, that he lost all pleasure in any other employment, became careless and neglectful, and, for the first time in his life, was punished. Then, in the spirit of the injunction which tells us to cut off our right hand if it cause us to offend, Fichte resolved to sacrifice the beloved book, and, taking it in his hand, walked slowly to a stream flowing past the house, with the intention of throwing it in. Long he lingered on the bank, ere he could muster courage for this first self-conquest of his life; but at length, summoning all his resolution, he flung it into the water. His fortitude gave way as he saw the treasure, too dearly loved, floating away for ever, and he burst into a passionate flood of tears. Just at this moment the father arrived on the spot, and the weeping child told what he had done; but either from timidity or incapacity to explain his feelings, was silent as to his true motive. Irritated at this treatment of his present, Fichte's father inflicted upon him an unusually severe punishment, and this occurrence formed a fitting prelude to his after-life, in which he was so often misunderstood, and the actions springing from the purest convictions of duty, were exactly those for which he had most to suffer. When a sufficient time had elapsed for the offence to be in some measure forgotten, the father brought home another of these seducing books; but Fichte dreaded being again exposed to the temptation, and begged that it might rather be given to some of the other children.

It was about this time that the other event before alluded to occurred. The clergyman of the village, who had taken a fancy to Gottlieb and often assisted in his instruction, happened one day to ask him how much he thought he could remember of the sermon of the preceding day. Fichte made the attempt, and, to the astonishment

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* For both anecdotes we are indebted to a very interesting article on Fichte which appeared in the *Foreign Quarterly Review*, No. 71. We have abridged the passages; otherwise the narrative is unaltered.

of the pastor, succeeded in giving a very tolerable account of the course of argument, as well as of the texts quoted in its illustration. The circumstance was mentioned to the Count von Hoffmansegg, the lord of the village, and one day another nobleman, the Baron von Mittiz, who was on a visit at the castle, happening to express his regret at having been too late for the sermon on the Sunday morning, he was told, half in jest, that it was of little consequence, for that there was a boy in the village who could repeat it all from memory. Little Gottlieb was sent for, and soon arrived in a clean smock-frock and bearing a large nosegay, such as his mother was accustomed to send to the castle occasionally as a token of respect. He answered the first questions put to him with his accustomed quiet simplicity; but when asked to repeat as much as he could recollect of the morning's sermon, his voice and manner became more animated, and, as he proceeded, entirely forgetting the presence of the formidable company, he became so fervid and abundant in his eloquence, that the Count thought it necessary to interrupt him, lest the playful tone of the circle should be destroyed by the serious subjects of the sermon. The young preacher had however made some impression on his auditory; the Baron made inquiries concerning him, and the clergyman, wishing for nothing more than an opportunity to serve his favourite, gave such an account that the Baron determined to undertake the charge of his education. He departed, carrying his *protégé* with him, to his castle of Siebeneichen, in Saxony, near Meissen, on the Elbe; and the heart of the poor village boy sank, as he beheld the gloomy grandeur of the baronial hall, and the dark oak forests by which it was surrounded. His first sorrow, his severest trial, had come in the shape of what a mis-judging world might regard as a singular piece of good fortune, and so deep a dejection fell on him, as seriously to endanger his health. His patron here manifested the really kindly spirit by which he had been actuated; he entered into the feelings of the child, and removed him from the lordly mansion to the abode of a country clergyman in the neighbourhood, who was passionately fond of children, and had none of his own. Under the truly paternal care of this excellent man, Fichte passed some of the happiest years of his life, and to its latest day looked back to them with tenderness and gratitude. The affectionate care of this amiable couple, who shared with him every little domestic pleasure, and treated him in every respect as if he had been indeed their son, was always remembered by him with the

liveliest sensibility, and certainly exercised a most favourable influence on his character.

In this family, Fichte received his first instruction in the languages of antiquity, in which however he was left much to his own efforts, seldom receiving what might be called a regular lesson. This plan, though it undoubtedly invigorated and sharpened his faculties, left him imperfectly acquainted with grammar, and retarded, in some measure, his subsequent progress at Schulpforte. His kind preceptor soon perceived the inefficiency of his own attainments for advancing the progress of so promising a pupil, and urged his patron to obtain for Fichte what appeared to him the advantages of a high school. He was accordingly sent, first to Meissen, and afterwards to the seminary at Schulpforte.

There the system of fagging existed in full force, and with its usual consequences, tyranny on the one side, dissimulation and cunning on the other. Even Fichte, whose native strength of character in some measure guarded him from evil influences that might have been fatal to a mind of a feebler order, confesses that his life at Schulpforte was anything but favourable to his integrity. He found himself gradually reconciled to the necessity of ruling his conduct by the opinion of the little community around him, and compelled to practise occasionally the same artifices as others, if he would not with all his talents and industry be always left behind.

Into this microcosm of contending forces the boy of thirteen, nurtured amidst lonely hills and silent forests, now found himself thrown. The monastic gloom of the buildings contrasted at first most painfully with the joyous freedom of fields and woods, where he had been accustomed to wander at will; but still more painfully, the solitude of the moral desert. Shy and shrinking within himself he stood, and the tears which furnished only subjects of mockery to his companions were forced back, or taught to flow only in secret. Here however he learned the useful lesson of self-reliance, so well though so bitterly taught by want of sympathy in those around us, and from this time to the close of his life it was never forgotten. It was natural that the idea of escape should occur to a boy thus circumstanced, but the dread of being retaken and brought back in disgrace to Schulpforte occasioned hesitation. Whilst brooding over this project, it happened that he met with a copy of *Robinson Crusoe*, and his enthusiasm, the enthusiasm of thirteen, was kindled into a blaze. The desert should be his dwelling-place! On some far-off island of the ocean, beyond the reach

of men and the students of Schulpforte, he would pass golden days of freedom and happiness. It was a common boyish notion, but the manner in which it was carried into execution shows traces of the character of the individual. Nothing could have been easier than for him to have taken his departure unperceived on one of the days when the scholars were allowed to go to the playground; but he scorned to steal away in secret; he would have this step appear as the result of necessity and deliberate determination. He therefore made a formal declaration to his superior, a lad who had made a cruel and oppressive use of the brief authority entrusted him, that he would no longer endure the treatment he received, but would leave the place at the first opportunity. As may be supposed, the announcement was received with sneers and laughter, and Fichte now considered himself in all honour free to fulfil his resolution. It was easy to find an opportunity, and accordingly, having taken the precaution to study his proposed route on the map, he set off, and trudged on stoutly on the road to Naumberg. As he walked, however, he bethought himself of a saying of his beloved old pastor, that one should never begin an important undertaking without a prayer for Divine assistance; he turned therefore, and kneeling down on a green hillock by the roadside, implored, in the innocent sincerity of his heart, the blessing of Heaven on his wanderings. As he prayed it occurred to the new Robinson that his disappearance must occasion grief to his parents, and his joy in his wild scheme was gone in a moment. 'Never, perhaps, to see his parents again!' This terrible thought suddenly presented itself with such force that he resolved to retrace his steps, and meet all the punishments that might be in store for him, 'that he might look once more on the face of his mother.'

On his return, he met those who had been sent in pursuit of him; for as soon as he had been missed, the 'Obergesell' had given information of what had passed between them. When carried before the Rector, Fichte immediately confessed that he had intended to escape, and at the same time related the whole story with such straightforward simplicity and openness, that the Rector became interested for him, and not only remitted his punishment, but chose for him, among the elder lads, another master, who treated him with the greatest kindness, and to whom he became warmly attached.

Fichte had become a Candidatus Theologiæ, when his patron died, and with him died all hopes of being a clergyman. His pro-

spects were gloomy in the extreme; but he was relieved from anxiety by being offered the situation of private tutor in a family in Switzerland. He soon afterwards made acquaintance with Lavater and some other literary men. He also formed an attachment, which was to last him through life, with a niece of Klopstock.

Fichte's tutorship was remarkable. The parents of his pupils, although neither perfectly comprehending his plans, nor approving of that part which they did comprehend, were nevertheless such admirers of his moral character—they stood in such respectful awe of him—that they were induced to submit their own conduct with respect to their children to his judgment. We presume that all well-meaning tutors occasionally make suggestions to parents respecting certain points in their conduct towards the children; but Fichte's plan is, we fancy, quite unexampled in the history of such relations. He kept a journal which he laid before them every week, and in which he had noted the faults of conduct of which they had been guilty. This lets us into the secret of Fichte's firm and truthful character, as much as anything we know about him. It was from such a soil that we might expect to find growing the moral doctrines which afterwards made his name illustrious. But this domestic censorship could not last long; it lasted for two years; and that it should have lasted so long is, as has been remarked, strong evidence of the respect in which his character was held. But it was irksome, insupportable, and ended at length in mutual dissatisfaction. He was forced to seek some other mode of subsistence. He went to Leipzig, where he gave private lessons in Greek and Philosophy, and became acquainted with the writings of Kant. This was an important event to him. Hear in what terms he speaks of it:—

'I have been living, for the last four or five months in Leipzig, the happiest life I can remember. I came here with my head full of grand projects, which all burst one after another, like so many soap-bubbles, without leaving me so much as the froth. At first this troubled me a little, and, half in despair, I took a step which I ought to have taken long before. Since I could not alter what was without me, I resolved to try to alter what was within. I threw myself into philosophy—the Kantian, *videlicet*—and here I found the true antidote for all my evils, and joy enough into the bargain. The influence which this philosophy, particularly the ethical part of it (which however is unintelligible without a previous study of the *Kritik der reinen Vernunft*), has had upon my whole system of

thought, the revolution which it has effected in my mind, is not to be described. To you especially I owe the declaration, that I now believe, with my whole heart, in free will, and that I see that under this supposition alone can duty, virtue, and morality have any existence. From the opposite proposition, of the necessity of all human actions, must flow the most injurious consequences to society; and it may, in fact, be in part the source of the corrupt morals of the higher classes which we hear so much of. Should any one adopting it remain virtuous, we must look for the cause of his purity elsewhere than in the innocuousness of the doctrine. With many it is their want of logical consequence in their actions.

'I am furthermore well convinced, that this life is not the land of enjoyment, but of labour and toil, and that every joy is granted to us but to strengthen us for further exertion; that the management of our own fate is by no means required of us, but only self-culture. I trouble myself therefore not at all concerning the things that are without; I endeavour not to appear, but to *be*. And to this perhaps I owe the deep tranquillity I enjoy; my external position however is well enough suited to such a frame of mind. I am no man's master, and no man's slave. As to prospects, I have none at all, for the constitution of the church here does not suit me, nor, to say the truth, that of the people either. As long as I can maintain my present independence I shall certainly do so. I have been for some time working at an explanatory abridgment of Kant's *Kritik der Urtheilskraft* (Critical Inquiry into the Faculty of Judgment), but I am afraid I shall be obliged to come before the public in a very immature state, to prevent being forestalled by a hundred vamped-up publications. Should the child ever make its appearance, I will send it to you.'*

It was in consequence of his admiration of Kant, that, after several ineffectual attempts to settle himself, he went to Königsberg. Instead of a letter of introduction, Fichte presented Kant with a work, written in eight days, and which bore the title of *A Critique of every possible Revelation*. Kant at once recognized his peer, and received him warmly. But Kant himself, though celebrated, was neither rich nor influential. Fichte's affairs were desperate. We have his own confession in the fragment of a journal which he kept at the time.

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* It was never printed; probably because, as he here anticipates, he was forestalled.

'28*th August*.—I yesterday began to revise my *Critique*. In the course of my meditation some new and excellent ideas were excogitated, which convinced me that my work was superficial. I endeavoured to carry out my investigation today; but my imagination led me so far away, that I could do nothing. I have reckoned my finances, and find that I have just enough to subsist on for a fortnight. It is true this is not the first time in my life that I have found myself in such an embarrassment, but I was then in my own country; besides, in growing older, one's sense of honour becomes more delicate, and distress is more and more of a hardship. . . . I have not been able to make any resolution. I certainly shall not speak on the subject to M. Borowsky, to whom Kant has given me an introduction. If I speak to any one, it shall be to Kant himself.

'1*st Sept*.—I have made a resolution which I must communicate to Kant. A situation as tutor, however reluctantly I might accept it, does not even offer itself; while, on the other hand, the incertitude in which I am placed does not allow me to work. I must return home. I can perhaps borrow from Kant the small sum necessary for my journey. I went to him today for that purpose, but my courage failed me; I resolved to write to him.

'2*nd Sept*.—I finished my letter to Kant, and sent it.

'3*rd Sept*.—Received an invitation to dinner from Kant. He received me with his usual cordiality; but informed me that it would be quite out of his power to accede to my request for another fortnight. Such amiable frankness!

'I have done nothing lately; but I shall set myself to work, and leave the rest to Providence.

'6*th Sept*.—Dined with Kant, who proposed that I should sell the MS. of my *Critique* to Hartung the bookseller. "It is admirably written," said he, when I told him I was going to rewrite it. Is that true? It is Kant who says so.

'12*th Sept*.—I wanted to work today; but could do nothing. How will this end? What will become of me a week hence? Then all my money will be gone.'

These extracts will not be read without emotion. They paint a curious picture in the life of our philosopher: a life which was little more than a perpetual and energetic combat.

The *Critique* was published anonymously, and gained immense applause; partly, no doubt, because it was generally mistaken for the production of Kant himself. The celebrity he acquired when

the authorship was disclosed, was the means of procuring him the chair of Philosophy at Jena, the offer of which was made him towards the end of 1793.

Jena was then the leading University of Germany; and Fichte might flatter himself that at length he had a settled position, in which he might calmly develope his scientific views. But his was a Fighter's destiny. Even here, at Jena, he found himself soon opposing and opposed. His endeavours to instil a higher moral feeling into the students—his anxiety for their better culture—only brought on him the accusation of endeavouring to undermine the religious institutions of his country; and his speculative views brought on him the charge of atheism.

Atheism is a grave charge, and yet how lightly made! The history of opinion abounds in instances of this levity; yet scarcely ever was a charge more groundless in appearance than that against Fichte, whose system was atheistic only in superficial appearance. Nevertheless the cry was raised, and he had to battle against it. It is understood that the Government would have been willing to overlook the publication of the work which raised this cry, if Fichte had made any sort of explanatory modification; but he would not hear of it, tendered his resignation, and soon afterwards found an asylum in Prussia, where he occupied the Chair at Erlangen, and afterwards at Berlin. From his career at Berlin we will select one incident typical of his character.

The students are assembled in crowds to hear their favourite professor, who is to lecture that day upon duty,—on that duty whose ideal grandeur his impassioned eloquence has revealed to them. Fichte arrives, calm and modest. He lectures with his usual dignified calmness, rising into fiery bursts of eloquence, but governed by the same marvellous rigour of logic as before. He leads them to the present state of affairs. On this topic he grows still more animated; the rolling of drums without frequently drowning his voice, and giving him fresh spirit. He points to the bleeding wounds of his country; he warms with hatred against oppressors; and enforces it as the duty of every one to lend his single arm to save his country.

'This course of lectures,' he exclaims, 'will be suspended till the end of the campaign. We will resume them in a free country, or die in the attempt to recover her freedom.' Loud shouts respondent ring through the hall; clapping of hands and stamping of feet make answer to the rolling drums without; every German heart there

present is moved, as at the sound of a trumpet. Fichte descends; passes through the crowd; and places himself in the ranks of a corps of volunteers then departing for the army. It is the commencement of the memorable campaign of 1813.

In another year he was no more; he fell, not by a French bullet, but by the fever caught while tending his loved wife, who herself had fallen a victim to her attendance on unknown sufferers. On the 28th of January, 1814, aged fifty-two, this noble Fichte expired.

There are few characters which inspire more admiration than that of Fichte; we must all admire 'that cold, colossal, adamantine spirit standing erect and clear, like a Cato Major among degenerate men; fit to have been the teacher of the Stoa, and to have discoursed of beauty and virtue in the groves of Academe! So robust an intellect, a soul so calm, so lofty, massive, and immovable has not mingled in philosophical discussion since the time of Luther. For the man rises before us amid contradiction and debate like a granite mountain amid clouds and winds. Ridicule of the best that could be commanded has been already tried against him; but it could not avail. What was the wit of a thousand wits to him? The cry of a thousand choughs assaulting that old cliff of granite; seen from the summit, these, as they winged the midway air, showed scarce so gross as beetles, and their cry was seldom even audible. Fichte's opinions may be true or false; but his character as a thinker can be slightly valued only by those who know it ill; and as a man approved by action and suffering, in his life and in his death, he ranks with a class of men who were common only in better ages than ours.'*

§ II. Fichte's Historical Position.

Kant's *Criticism*, although really leaving scepticism in possession of the field, was nevertheless believed to have indicated a new domain, in which a refuge might be found. The thought soon suggested itself that on this domain an indestructible temple might be erected. Kant had driven the piles deep down into the earth—a secure foundation was made; but Kant had declined building.

Jacobi, for one, saw in the principles of 'criticism' a path on which he could travel. He maintained, that just as Sense was,

* Carlyle.

according to Kant, a faculty whereby we perceived material things, so also was Reason a sense, a faculty, whereby we perceive the supersensual.

It was indeed soon evident that men would not content themselves with the mere negation to which Kant had reduced our knowledge of things *per se*. It was the positive part of his system they accepted and endeavoured to extend. This attempt forms the matter of all the subsequent history of German Philosophy till Hegel. We will briefly state the nature of the discussions which the result of Kant's system had rendered imperative.

Kant had postulated the existence of an object as the necessary correlate to a subject. Knowledge was both objective and subjective; but inasmuch as it was thus inseparably twofold it could never penetrate the essence of things—it could never know the object—it could only know phenomena. Hence the problem was:—

What is the relation of object and subject?

To solve this, it was necessary to penetrate the essence of things, to apprehend noumena. All the efforts of men were therefore to be directed towards this absolute science. The ground of all certitude being in the *à priori* ideas, an attempt was made to construct *à priori* the whole system of human knowledge.

The Ego was the necessary basis of the new edifice. Consciousness, as alone certain, was proclaimed the ground upon which absolute science must rest.

Fichte's position is here clearly marked out. His sole object was to construct a science out of consciousness, and thereon to found a system of morals.

Let us at the outset request the reader to give no heed to any of the witticisms which he may hear, or which may suggest themselves to him on a hasty consideration of Fichte's opinions. That the opinions are not those of ordinary thinkers, we admit; that they are repugnant to all 'common sense,' we must also admit; that they are false, we believe: but we also believe them to have been laborious products of an earnest mind, the consequences of admitted premisses, drawn with singular audacity and subtlety, and no mere caprices of ingenious speculation—no paradoxes of an acute but trifling mind.

It was within him that he found a lamp to light him on his path. Deep in the recesses of his soul, beneath all understanding, superior to all logical knowledge, there lay a faculty by which truth, absolute truth, might be known.

'I have found the organ,' he says in his *Bestimmung des Menschen*, 'by which to apprehend all reality. It is not the understanding; for all knowledge supposes some higher knowledge on which it rests, and of this ascent there is no end. It is Faith, voluntarily reposing on views naturally presenting themselves to us, *because* through these views alone we can fulfil our destiny, which sees our knowledge, and pronounces that "it is good," and raises it to certainty and conviction. It is no knowledge, but a resolution of the will to admit this knowledge. This is no mere verbal distinction, but a true and deep one, pregnant with the most important consequences. Let me for ever hold fast by it. All my conviction is but faith, and it proceeds from the will and not from the understanding; from the will also, and not from the understanding, must all the true culture proceed. Let the first only be firmly directed towards the Good, the latter will of itself apprehend the True. Should the latter be exercised and developed while the former remains neglected, nothing can come of it but a facility in vain and endless sophistical subtleties refining away into the absolutely void inane. I know that every seeming truth, born of thought alone, and not ultimately resting on faith, is false and spurious; for knowledge, purely and simply such, when carried to its utmost consequences, leads to the conviction that we can know nothing! Such knowledge never finds anything in the conclusions, which it has not previously placed in the premisses by faith; and even then its conclusions are not always correct. . . . Every human creature born into the world has unconsciously seized on the reality which exists for him alone through this intuitive faith. If in mere knowledge—in mere perception and reflection—we can discover no ground for regarding our mental presentations as more than mere pictures, why do we all nevertheless regard them as more, and imagine for them a basis, a *substratum* independent of all modifications? If we all possess the capacity and the instinct to go beyond this natural view of things, why do so few of us follow this instinct, or exercise this capacity?—nay, why do we even resist with a sort of bitterness when we are urged towards this path? What holds us imprisoned in these natural boundaries? Not inferences of our reason; for there are none which could do this. It is our deep interest in reality that does this—in the good that we are to produce—in the common and the sensuous that we are to enjoy. From this interest can no one who lives detach himself, and just as little from the faith which forces itself upon him simultaneously with his

existence. We are all born in faith, and he who is blind follows blindly the irresistible attraction. He who sees follows by sight, and believes because he will believe.'*

Here the limit, set by Kant, is overleaped: a knowledge of realities is affirmed. But it is not enough to affirm such a knowledge; we must prove it. To prove this is the mission of Philosophy.

Fichte, who thought himself a true Kantist, although Kant very distinctly and publicly repudiated him, declared that the materials for a science had been discovered by Kant; nothing more was needed than a systematic co-ordination of these materials: and this task he undertook in his famous Doctrine of Science (*Wissenschaftslehre*). In this he endeavoured to construct *à priori* all knowledge.

§ III. Basis of Fichte's System.

We are supposed to perceive external objects through the ideas which these objects excite in us. But this assumption is not warranted by the facts of consciousness. What is the fundamental fact? It is that I have in my mind a certain idea. This, and this only, is primitively given. When we leave this fact in quest of an explanation, we are forced to admit either that this idea is spontaneously evolved *by me;* or else some *not-me*—something different from myself—has excited it *in me.* Idealism or Dualism? choose between them.

Kant, unwilling to embrace idealism, and unable to conceive how the Ego spontaneously evolved within itself ideas of that which it regarded as different from itself, postulated the existence of a Non-Ego, but declared that we knew nothing of it. In this he followed Locke, and the majority of philosophers.

Truly, said Fichte, we know nothing of it; we can only know that which passes within ourselves. Only so much as we are *conscious* of, can we know; but in consciousness there is no object given, there is only an idea given. Are we forced by the very laws of our reason to suppose that there is Non-Ego existing?—are we forced to assume that these ideas are images of something *out* of us and independent of us? To what does this dilemma bring us? Simply to this: that the very assumption, here called a necessary consequence of our mental constitution—this Non-Ego, which must be postulated, is,

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* We adopt the translation of Mrs. Percy Sinnett: *Destination of Man*, London, 1846.

after all, nothing but a postulate of our reason; is therefore a *product of the Ego*. It is the Ego which thus *creates the necessity* for a Non-Ego; it is the Ego which thus, *answering to the necessity, creates the Non-Ego wanted*. Ideas, and nothing but ideas, are given in the primitive fact of consciousness. These are the products of the *activity* of the Ego; and not, as is so commonly asserted, the products of the *passivity* of the Ego. The soul is no passive mirror reflecting images. It is an active principle creating them. The soul is no lifeless *receptivity*. Were it not brimming over with life and activity, perception would be impossible. One stone does not perceive another. A mould does not perceive the liquid that is poured into it.

Consciousness is in its very essence an activity. Well then, if in its activity it produces images, and if by the laws of its nature it is forced to assume that these images have some substratum, what is this assumption but *another* form of the soul's activity? If the Ego is conscious of its changes, and yet is forced to attribute these changes to some external cause, what is this very act of assuming an external cause but *the pure act of the Ego?—another change in the consciousness?*

You admit that we cannot know *Substance;* all our knowledge is limited to *accidents*—to phenomena. But, you say, you are forced *to assume* a Substance as the basis of these accidents—a noumenon as that whereby phenomena are possible; and yet you cannot *know* this noumenon. Fichte answers: If you cannot *know* it, your assumption, *as the mere product of your reason,* is nothing more nor less *than another form of the activity of the Ego.* It is *you* who assume; and you assume *what* you call Substance. Substance is nothing but the *synthesis of accidents.* And it is a mental synthesis.

Thus Fichte founded Idealism upon the basis of consciousness, which was the admitted basis of all certitude; and he not only founded idealism, but reduced the Ego to an activity, and all *knowledge* to an *act*.

The activity of the Ego is of course an assumption, but it is the only assumption necessary for the construction of a science. That once admitted, the existence of the Non-Ego, as a product of the Ego, follows as a necessary consequence.

Every one will admit that A = A; or that A *is* A. This is an axiom which is known intuitively, and has no need of proof. It is the proposition of absolute identity (*Satz der Identität*). It is ab-

solutely true. In admitting this to be absolutely true, we ascribe to the mind a faculty of knowing absolute truth.

But in saying A equals A, we do not affirm the *existence* of A; we only affirm that *if* A exist, then it must equal A. And the axiom teaches us not that A exists; but there is a necessary relation between a certain *if* and *then;* and this necessary relation we will call X. But this relation, this X, is only *in* the Ego, comes only *from* the Ego. It is the Ego that judges in the preceding axiom that A = A; and it judges by means of X.

To reduce this to language a little less scholastic, we may say that, in every judgment which the mind makes, the act of judging is an act of the Ego.

But as the X is wholly in the Ego, so therefore is A *in* the Ego, and is posited *by* the Ego. And by this we see that there is *something* in the Ego which is for ever one and the same, and that is the X. Hence the formula, 'I *am* I: Ego = Ego.'

We come here to the *Cogito, ergo sum,* of Descartes, as the basis of all certitude. The Ego posits itself, and *is* by means of this very self-positing. When I say 'I am,' I affirm, in consciousness, my existence; and this affirmation of my consciousness is the condition of my existence. The Ego is therefore at one and the same time both the activity and the product of activity; precisely as thought is both the thinking activity, and the product thought.

We will, for the present, spare the reader any further infliction of such logical abstractions. He will catch in the foregoing a glimpse of Fichte's method, and be in some way able to estimate the strength of the basis on which idealism reposes.

The great point Fichte has endeavoured to establish is the identity of being and thought—of existence and consciousness—of object and subject. And he establishes this by means of the Ego considered as essentially an activity.

Hence the conclusion drawn in the practical part of his philosophy that the true destination of man is not thought, but action, which is thought realized. 'I am free,' he says. That is the revelation of consciousness. 'I am free; and it is not merely my action, but the free determination of my will to obey the voice of conscience, that decides all my worth. More brightly does the everlasting world now rise before me; and the fundamental laws of its order are more clearly revealed to my mental sight. My *will alone,* lying hid in the obscure depths of my soul, is the first link in a chain of consequences stretching through the invisible realms of spirit, as in

this terrestrial world the action itself, a certain movement communicated to matter, is the first link in a material chain of cause and effect, encircling the whole system. The will is the efficient cause, the living principle of the world of spirit, as motion is of the world of sense. I stand between two worlds, the one visible, in which the act alone avails, and the intention matters not at all; the other invisible and incomprehensible, acted on only by the will. In both these worlds I am an effective force. The Divine life, as alone the finite mind can conceive it, is self-forming, self-representing will, clothed, to the mortal eye, with multitudinous sensuous forms, flowing through me and through the whole immeasurable universe, here streaming through my veins and muscles,—there, pouring its abundance into the tree, the flower, the grass. The dead, heavy mass of inert matter, which did but fill up nature, has disappeared, and, in its stead, there rushes by the bright, everlasting flood of life and power, from its Infinite Source.

'The Eternal Will is the Creator of the world, as he is the Creator of the finite reason. Those who will insist that the world must have been created out of a mass of inert matter, which must always remain inert and lifeless, like a vessel made by human hands, know neither the world nor Him. The Infinite Reason alone exists in himself—the finite in him; in our minds alone has he created a world, or at least that by and through which it becomes unfolded to us. In his light we behold the light, and all that it reveals. Great, living Will! whom no words can name, and no conception embrace! well may I lift my thoughts to thee, for I can think only in thee. In thee, the Incomprehensible, does my own existence, and that of the world, become comprehensible to me; all the problems of being are solved, and the most perfect harmony reigns. I veil my face before thee and lay my finger on my lips.'

§ IV. Fichte's Idealism.

The ground-principle of Fichte's idealism having been given, we have now to see how he avoids the natural objections which rise against such a doctrine. But first let us notice how this deification of personality was at once the most natural product of such a mind as Fichte's, and the best adapted to the spirit of the age which produced it. His doctrine was an inspiration of that ardent and exalted spirit which stirred the heart of Germany, and made

the campaign of 1813 an epoch in history. Germany then, as now, was most deficient in energetic will. It had armies, and these armies were headed by experienced generals. But among them there was scarcely another beyond the impetuous Blücher, who had steadfast will. They were beaten and beaten. At length they were roused. A series of insults had roused them. They rose to fight for fatherland; and in their ranks was Fichte, who by deed as well as doctrine sought to convince them that in Will lay man's divinity.

The question being, *What is the relation of Object and Subject?* and Fichte's solution being *Object and Subject are identical,* it followed from his position that inasmuch as an Object and a Subject—a Non-Ego and an Ego—were given in knowledge, and the distinction between them by all men supposed to be real, the origin of this distinction must arise in one of two ways: either the Ego must posit the Non-Ego, wilfully and consciously (in which case mankind would never suppose the distinction to be a real distinction); or else the *Ego must cause the Non-Ego to be,* and must do so necessarily and unconsciously.

How does Fichte solve the problem? He assumes that the existence of the very Ego itself is *determined** by the Non-Ego; and in this way: To be, and to be conscious, are the same. The existence of the Ego depends upon its consciousness. But to be conscious of Self is at the same time to be conscious of Not-Self; the correlates Self and Not-Self are given in the same act of consciousness. But how is it that we attribute reality to Not-Self? Just as we attribute reality to Self, namely, by an act of Consciousness. Not-Self is given in Consciousness as a *reality,* and therefore we cannot suppose it to be a phantom.

We may pause here to remark how all the witticisms against Idealism fall to the ground. The wits assume that when it is said the World is produced by the Ego, this World must be held as a phantom. Now nobody ever believed that external objects had no reality; the only possible doubt is as to whether they have any reality *independent* of mind.

In consciousness we have a twofold fact, namely, the fact of Self,

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* The German word *bestimmen,* which we are forced to translate 'to determine,' is of immense use to the metaphysicians; we would gladly have substituted some other equivalent, could we have found one to represent the meaning better. To determine, in philosophy, does not mean (as in ordinary language), to resolve, but to render definite. Chaos, when *determined,* is the created world.

and the fact of Not-Self, indissolubly given in one. We conclude therefore that Consciousness—that the Ego—is partly self-determined, and partly determined by not-self. Let us suppose the entire reality of the Ego (that is, in its identity of Subject and Object) represented by the number ten. The Ego, conscious of five of its parts—or, to speak with Fichte—*positing* five, does by that very act posit five parts *negatively* in itself. But how is it that the Ego can posit a negation in itself? It does so by the very act of Consciousness; in the act of separating five from ten, the five remaining are left passive. The negation is therefore the passivity of the Ego. This seems to lead to the contradiction that the Ego, which was defined as an Activity, is at the same time active and passive. The solution of this difficulty is that it is Activity which determines Passivity, and reciprocally. Let us suppose the absolute reality as a Sphere; this is entirely in the Ego, and has a certain quantity. Every quantity less than this totality, will, of necessity, be negation, passivity. In order that a less quantity should be compared with the totality and so opposed to it, it is necessary there should be some relation between them; and this is in the idea of divisibility. In the absolute totality, as such, there are no parts; but this totality may be compared with parts and distinguished from it. Passivity is therefore a determinate quantity of Activity, a quantity compared with the totality. In regard to the Ego as absolute, the Ego as limited is passive; in the relation of Ego as limited to the Non-Ego, the Ego is active and the Non-Ego passive. And thus are activity and passivity reciprocally determined.

The result of this and much more reasoning, is the hypothesis that when mankind attribute to objects a real existence they are correct; but they are incorrect in supposing that the Object is independent of the Subject: it is identical with the Subject. The common-sense belief is therefore correct enough. It is when we would rise above this belief, and endeavour to philosophize, that we fall into error. All the philosophers have erred, not in assuming the *reality* of objects, but in assuming the reality of *two* distinct, disparate existences, Matter and Mind; whereas we have seen that there is only one existence, having the twofold aspect of Object and Subject.

Nor is the distinction unimportant. If Dualism be accepted, we have no refuge from Scepticism. If we are to believe that *Dinge an sich* exist—that Matter exists independently of Mind, exists

per se—then are we doomed to admit only a knowledge of phenomena as possible. The things in themselves we can never know; we can only know their effects upon us. Our knowledge is relative, and never can embrace the absolute truth.

But if Idealism be accepted, the ordinary belief of men is not only respected but confirmed; for this belief is that we *do* know things in themselves, and that the things we know *do* exist. The Dualist forces you to admit that you *cannot* know things in themselves; and that your belief in their existence is merely the postulate of your Reason, and is not *immediately* given in the facts of Consciousness. The Idealist, on the contrary, gives you an *immediate* knowledge of things in themselves, consequently opens to you the domain of absolute Truth. He only differs from you in saying that these things, which you immediately know, are part and parcel of yourself; and it is *because* you and they are indissolubly united, that immediate knowledge is possible.

'But,' says Realism, 'I know that objects are altogether independent of *me*. I did not create them. I found them there, *out* of me. The proof of this is that if, after looking at a tree, I turn away, or shut my eyes, the image of the tree is annihilated, but the tree itself remains.'

'No,' answers Idealism, 'the tree itself does not remain: for the tree is but a phenomenon, or collection of phenomena;—the tree is a Perception, and all perceptions are subjective. You suppose that every one must admit that our *perceptions* are different from their *objects*. But are they different? that is precisely the question at issue; and you assume it. Let us be cautious. What is an object —a tree for instance? Tell me, what does your Consciousness inform you of? Let me hear the fact, the whole fact, and no *inference* from the fact. Is not the *object* (tree) one and the same as your *perception* (tree)? Is not the tree a mere name for your perception? Does not your Consciousness distinctly tell you that the Form, Colour, Solidity, and Smell of the Tree are *in you*—are affections of your Subject?'

'I admit that,' replies Realism; 'but although these are *in me*, they are caused by something *out of me*. Consciousness tells me that very plainly.'

'Does it so? I tell you that Consciousness has no such power. It can tell you of its own changes; it cannot transcend itself to tell you anything about that which causes its changes.'

'But I am irresistibly compelled to believe,' says Realism, 'that

there are things which exist *out* of me; and this belief, because irresistible, is true.'

'Stop! you run on too fast,' replies Idealism; 'your belief is not what you describe it. You are not irresistibly compelled to believe that things exist, which said things lie *underneath* all their appearances, and must ever remain unknown. This is no instinctive belief; it is a philosophic inference. Your belief simply is, that certain things, coloured, odorous, extended, sapid, and solid, exist; and so they do. But you infer that they exist *out* of you? Rash inference. Have you not admitted that colour, odour, taste, extension, etc., are but modifications of your sentient being; and if they exist *in* you, how can they exist *out* of you? They do not: they seem to do so by a law of the mind which gives objectivity to our sensations.'*

'Try your utmost to conceive an object as anything more than a synthesis of perceptions. You cannot. You may infer indeed that a *substratum* for all phenomena exists, although unknown, unknowable. But on what is your inference grounded? On the impossibility of conceiving the existence of qualities—extension, colour, etc.—apart from some substance *of which* they are qualities. This impossibility is a figment. The qualities have no need of an objective substratum, because they have a *subjective* substratum: they are the modifications of a sensitive subject; and the synthesis of these modifications is the only substratum of which they stand in need. This may be proved in another way. The qualities of objects, it is universally admitted, are but modifications of the subject: these qualities are *attributed to* external objects; they are dependent upon the subject for their existence; and yet, to account for their existence, it is asserted that some unknown external something must exist as a substance in which they must inhere. Now it is apparent that inasmuch as these qualities are subjective and dependent upon the subject for their existence, there can be no necessity for an object in which they must inhere.' Thus may Idealism defend itself against Realism.

We have made ourselves the advocates of Fichte's principles, but the reader will not mistake us for disciples of Fichte. In the exposition of his system we have, for obvious reasons, generally

* The difference between Berkeley and Fichte is apparent here. The former said that the objects *did* exist independent of the Ego, but did *not* exist independent of the universal Mind. Fichte's Idealism was *Egoism*; Berkeley's was a theological Idealism.

avoided his own manner, which is too abstract to be followed without difficulty, and we have endeavoured to state his ideas in our own way.

To exhibit Fichte's Idealism is, strictly speaking, all that our plan imposes on us; but although his philosophical doctrines are all founded upon it, and although it was the doctrine which made an epoch in German Philosophy, consequently the doctrine which entitles him to a place in this History, nevertheless we should be doing him injustice and misleading our readers if we did not give some glimpse of his moral system. The Idealism, as Idealism, seems little better than an ingenious paradox: only when we see it applied can we regard it as serious.*

§ V. Application of Fichte's Idealism.

The Ego is essentially an Activity; consequently free. But this free activity would lose itself in infinity, and would remain without consciousness—in fact, without existence—did it not encounter some *resistance*. In the effort to vanquish this resistance, it exerts its will, becomes conscious of something not itself, and *thereby* becomes conscious of itself. But resistance limits freedom, and as an Activity the Ego is essentially free—it is irresistibly impelled to enjoy perfect freedom. This expansive force, which impels the Ego to realize itself by complete development, and thereby assimilating the Non-Ego—this force, in as far as it is not realized, is the *aim* of man's existence—it is his duty.

Here a difference from the ordinary schools of morality begins to show itself. Duty is not a moral obligation which we are free to acknowledge or reject; it is a pulse beating in the very heart of man—a power inseparable from his constitution; and according to its fulfilment is the man complete.

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* Those who are curious to see what he himself makes of his system are referred to his *Wissenschaftslehre* (of which a French translation by M. Paul Grimblot exists, under the title of *Doctrine de la Science*), or, as a more popular exposition, to his *Bestimmung des Menschen*, a French translation of which has been published by M. Barchou de Penhoen, under the title *Destination de l'Homme*, which, from the character and learning of the translator, is, we have no doubt, an excellent version. An English translation has also been made by Mrs. Percy Sinnett, which can be recommended. Fichte's work, *The Nature of the Scholar*, has also recently appeared, by Mr. W. Smith, who has also translated the *Characteristics of the Present Age*.

The world does not exist because we imagine it, but because we *believe* it. Let all reality be swept away by scepticism—we are not affected. Man is impelled by his very nature to realize his existence by his acts. Our destination is not thought, but action. Man is not born to brood over his thoughts, but to manifest them —to give them existence. There is a moral world *within;* our mission is to transport it *without*. By this we create the world. For what is the condition of existence?—what determines Thought to *be?* Simply that it should realize itself as an object. The Ego *as simple Subject* does not exist; it has only a potentiality of existence. To exist, it must realize itself and become *Subject-Object*.

Mark the consequence:—Knowing that we carry within us the moral world, and that upon ourselves alone depends the attainment of so sublime an object as the manifestation of this world, it is to ourselves alone that we must direct our attention. This realization of the world, what is it but the complete development of ourselves? If we would *be,* therefore—if we would enjoy the realities of existence, we must develope ourselves in the attempt to incessantly realize the beautiful, the useful, and the good. Man is commanded to be moral by the imperious necessity of his own nature. To be virtuous is not to obey some external law, but to fulfil an internal law: this obedience is not slavery, but freedom; it is not sacrificing one particle of freedom to any other power, but wholly and truly realizing the power within us of being free.

Life is a combat. The free spirit of man, inasmuch as it is finite, is limited, imperfect; but it incessantly struggles to subjugate that which opposes it—it tends incessantly towards infinity. Defeated in his hopes, he is sometimes discouraged, but this lasts not long. There is a well-spring of energy for ever vital in the heart of man; an ideal is for ever shining before him, and that he must attain.

Man knows himself to be free; knows also that his fellow-men are free; and therefore the duty of each is to treat the others as beings who have the same aim as himself. Individual liberty is therefore the principle of all government: from it Fichte deduces his political system.

And what says Fichte respecting God? He was, as we know, accused of atheism. Let us hear his real opinions. In his answer to that charge we have an abstruse, but at the same time positive, exposition of his views.* God created the world out of an inert

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* *Gerichtliche Verantwortungsschriften gegen die Anklage des Atheismus.*

mass of matter; and from the evidence of design in this created world we infer an intelligent designer. This is the common view; but Fichte could not accept it. In the first place, what we call the World is but the incarnation of our Duty (*unsere Welt ist das versinnlichte Material unserer Pflicht*). It is the objective existence of the Ego: we are, so to speak, the creators of it. Such a statement *looks* very like atheism, especially when Fichte's system is not clearly apprehended: it is however, at the worst, only Acosmism.

Nor could Fichte accept the evidence of Design, because Design is a mere conclusion of the understanding, applicable only to finite, transient things, wholly inapplicable to the infinite: Design itself is but a subjective notion.*

'God,' says Fichte, 'must be *believed* in, not *inferred*. Faith is the ground of all conviction, scientific or moral. Why do you believe in the existence of the world? It is nothing more than the incarnation of that which you carry within you, yet you believe in it. In the same way God exists in your Consciousness, and you believe in him. He is the Moral Order (*moralische Ordnung*) of the world: as such we can know him, and only as such. For if we attempt to attribute to him Intelligence or Personality, we at once necessarily fall into anthropomorphism. God is infinite: therefore beyond the reach of our *science*, which can only embrace the finite, but not beyond our *faith*.'†

By our efforts to fulfil our Duty, and thus to realize the Good and Beautiful, we are tending towards God, we live in some measure the life of God. True religion is therefore the realization of universal reason. If we were all perfectly free, we should be one; for there is but one Liberty. If we had all the same convictions, the law of each would be the law of all, since all would have but one Will. To this we aspire; to this Humanity is tending.

The germ of mysticism which lies in this doctrine was fully developed by some of Fichte's successors, although he himself had particularly guarded against such an interpretation, and distinguishes himself from the mystics.

Let us now pass to Fichte's Philosophy of History.

The historian only accomplishes half of the required task. He narrates the events of an epoch, in their order of occurrence, and in the form of their occurrence; but he cannot be assured that he

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* *Ibid.*, p. 43.

† *Sittenlehre*, pp. 189, 194.

has not omitted some of these events, or that he has given them their due position and significance. The philosopher must complete this incomplete method. He must form some idea of the epoch—an Idea *à priori*, independent of experience. He must then exhibit this Idea always dominant throughout the epoch—and manifesting itself in all the multiplicity of facts, which are but its incarnation. What is the world but an incarnation of the Ego? What is an epoch but an incarnation of an Idea?

Every epoch has therefore its pre-existent Idea. And this Idea will be determined by the Ideas of the epochs which have preceded it; and will determine those which succeed it. Hence we conclude that the evolutions of Ideas—or the History of the World—is accomplished on a certain *plan*. The philosopher must conceive this plan in its totality, that he may from it deduce the Ideas of the principal epochs in the history of Humanity, not only as past, but as future.

The question first to be settled is this: What is the ground-plan of the world? or, in other words, according to Fichte, What is the fundamental Idea which Humanity has to realize?

The answer is: The Idea of Duty. This, in its concrete expression, is: To fix the relations of man to man in such order that the perfect liberty of each be compatible with the liberty of the whole.

History may thus be divided into two principal epochs. The one, in which man has not established the social relations on the basis of reason. The other, in which he has established them, and knows that he has done so.

That Humanity exists but for the successive and constant realization of the dictates of reason is easily proved. But sometimes Humanity has knowledge of what it performs, and why it performs it; sometimes it obeys but a blind impulse. In this second case, that is to say, in the first epochs of the terrestrial existence of Humanity, Reason, although not manifesting itself distinctly, consciously, nevertheless exists. It manifests itself as an instinct, and appears under the form of a natural law; it manifests itself in the intelligence only as a vague and obscure sentiment. Reason, on the contrary, no sooner manifests itself as Reason, than it is gifted with consciousness of itself and its acts. This constitutes the second epoch.

But Humanity does not pass at once from the first to the second epoch. At first Reason only manifests itself in a few men, the Great Men of their age, who thereby acquire authority. They are

the instructors of their age; their mission is to elevate the mass up to themselves. Thus Instinct diminishes, and Reason supervenes. Science appears. Morality becomes a science. The relations of man to man become more and more fixed in accordance with the dictates of reason.

The entire life of Humanity has five periods. I. The domination of Instinct over Reason: this is the primitive age. II. The general Instinct gives place to an external dominant Authority: this is the age of doctrines unable to convince, and employing force to produce a blind belief, claiming unlimited obedience; this is the period in which Evil arises. III. The Authority, dominant in the preceding epoch, but constantly attacked by Reason, becomes weak and wavering: this is the epoch of scepticism and licentiousness. IV. Reason becomes conscious of itself; truth makes itself known; the science of Reason developes itself: this is the beginning of that perfection which Humanity is destined to attain. V. The science of Reason is applied; Humanity fashions itself after the ideal standard of Reason: this is the epoch of Art, the last term in the history of our species.

This brief outline of Fichte's system will be sufficient to assign him his place in the long line of European thinkers who have worked, with such perseverance, the glittering mine of Metaphysics; and sufficient also, we trust, not only to stimulate the curiosity of such readers whose studies lie in that direction, but also to furnish them with a general view capable of rendering the details intelligible.

CHAPTER II.

SCHELLING.

§ I. Life of Schelling.

FREDERICK WILLIAM JOSEPH SCHELLING was born in Leonberg, in Würtemberg, 27th of January, 1775. At the University in Tübingen he first knew Hegel, and their friendship was enduring and productive. At Leipzig he studied Medicine and Philosophy; in the latter he became the pupil of Fichte. He afterwards filled Fichte's vacant chair at Jena, where he lectured with immense success. In 1807 he was made a member of the Munich Academy of Sciences. And in Bavaria, honoured, rewarded, and ennobled, he remained till 1842, when the King of Prussia seduced him to Berlin; and there, in the chair once held by Hegel, he opened a series of lectures, in which he was to give the fruit of a life's meditation.

His appearance at Berlin was the signal for violent polemics. The Hegelians were all up in arms. Pamphlets, full of personalities and dialectics, were launched against Schelling, apparently without much effect. His foes at length grew weary of screaming; and he continued quietly to lecture. In 1845 the writer of this work had the gratification not only of hearing him lecture on Mythology to large audiences, but also of hearing him in the expansiveness of private conversation pour forth his stores of varied knowledge. His intellectual vigour was such, that although seventy summers had whitened his hair, he seemed to have still a long lease of life; and indeed he continued nine years longer to inspire the respect of all who knew him. He died on the 20th August, 1854.

§ II. Schelling's Doctrines.

Schelling is often styled the German Plato. In such parallels there is always some truth amidst much error. Schelling's works unquestionably exhibit great power of vivid imagination conjoined with subtle dialectics; if on this ground he is to be styled a Plato, then are there hundreds to share that title with him. His doc-

trines have little resemblance to those of his supposed prototype. Curiously enough, his head was marvellously like that of Socrates; not so ugly, but still very like it in general character.

Schelling may be regarded as having been the systematizer of a tendency, always manifesting itself, but then in full vigour in Germany—the tendency towards Pantheism. This tendency is not merely the offspring of Mysticism. It may be recognized in the clear Goethe, no less than in the mystical Novalis. In some way or other, Pantheism seems the natural issue of almost every Philosophy of Religion, when rigorously carried out; but Germany, above all European countries, has, both in poetry and speculation, the most constantly reproduced it. Her poets, her artists, her musicians, and her thinkers, have been more or less pantheists. Schelling's attempt therefore to give Pantheism a scientific basis could not but meet with hearty approbation.

We may here once more notice the similarity, in historical position, of the modern German speculations to those of the Alexandrian Schools. In both the incapacity of Reason to solve the problems of Philosophy is openly proclaimed; in both some higher faculty is called in to solve them. Plotinus called this faculty *Ecstasy*. Schelling called it the *Intellectual Intuition*. The Ecstasy was not supposed to be a faculty possessed by all men, and at all times; it was only possessed by the few, and by them but sometimes. The Intellectual Intuition was not supposed to be a faculty common to all men; on the contrary, it was held as the endowment only of a few of the privileged: it was the faculty for philosophizing. Schelling expresses his disdain for those who talk about not comprehending the highest truths of Philosophy. 'Really,' he exclaims, 'one sees not wherefore Philosophy should pay any attention whatever to Incapacity. It is better rather that we should isolate Philosophy from all the ordinary routes, and keep it so separated from ordinary knowledge that none of these routes should lead to it. Philosophy commences where ordinary knowledge terminates.'* The highest truths of science cannot be proved, they must be apprehended; for those who cannot apprehend them there is nothing but pity; argument is useless.

After this, were we to call Schelling the German Plotinus, we should perhaps be nearer the truth than in calling him the German Plato. But it was for the sake of no such idle parallel that we

* *Neue Zeitschrift für Speculative Physik*, ii. 34.

compared the fundamental positions of each. Our object was to 'point a moral,' and to show how the same forms of error re-appear in history, and how the labours of so many centuries have not advanced the human mind in this direction one single step.

The first point to be established is the nature of Schelling's improvement upon Fichte: the relation in which the two doctrines stand to each other.

Fichte's Idealism was purely subjective Idealism. The Object had indeed reality, but was solely dependent upon the Subject. Endeavour as we might, we could never separate the Object from the Subject, we could never conceive a possible mode of existence without being forced to identify with it a Subject. Indeed the very conception itself is but an act of the Subject. Admitting that we are forced by the laws of our mental constitution to postulate an unknown something, a Noumenon, as the substance in which all phenomena inhere, what, after all, is this postulate? It is an act of the Mind; it is wholly subjective; the necessity for the postulate is a mental necessity. The Non-Ego therefore is the product of the Ego.

There is subtle reasoning in the above; nay more, it contains a principle which is irrefutable: the principle of the identity of Object and Subject in knowledge.* This Schelling adopted. Nevertheless, in spite of such an admission, the nullity of the external world was too violent and repulsive a conclusion to be long maintained; and it was necessary to see if the principle of identity might not be preserved, without forcing such a conclusion.

The existence of the objective world is as firmly believed in as the existence of the subjective: they are, indeed, both given in the same act. We cannot be conscious of our own existence without at the same time inseparably connecting it with some other existence from which we distinguished ourselves. So in like manner we cannot be aware of the existence of anything out of ourselves without at the same time inseparably connecting with it a consciousness of ourselves. Hence we conclude that both exist; not indeed separately, not independently of each other, but *identified* in some higher power. Fichte said that the Non-Ego was created by the Ego.

* This is the stronghold of Idealism, and we consider it impregnable, so long as men reason on the implied assumption, that whatever is true in human knowledge is equally true (*i. e.* actually so co-ordinated) in *fact*; that as things appear *to us* so they are *per se*. And yet without this assumption Philosophy is impossible.

Schelling said that the two were equally real, and that both were identified in the Absolute.

Knowledge must be knowledge of something. Hence Knowledge implies the correlate of Being. Knowledge without an Object known, is but an empty form. But Knowledge and Being are correlates; they are not separable; they are identified. It is as impossible to conceive an Object known without a Subject knowing, as it is to conceive a Subject knowing without an Object known.

Nature is Spirit visible; Spirit is invisible Nature:* the absolute Ideal is at the same time the absolute Real.

Hence Philosophy has two primary problems to solve. In the *Transcendental Philosophy* the problem is to construct Nature from Intelligence—the Object from the Subject. In the *Philosophy of Nature* the problem is to construct Intelligence from Nature—the Subject from the Object.† And how are we to construct one from the other? Fichte has taught us to do so by the principle of the identity of Subject and Object, whereby the productivity and the product are in constant opposition, yet always one. The productivity (*Thätigkeit*) is the activity in act; it is the force which developes itself into all things. The product is the activity arrested and solidified into a fact; but it is always ready to pass again into activity. And thus the world is but a balancing of contending powers within the sphere of the Absolute.

In what, then, does Schelling differ from Fichte, since both assert that the product (Object) is but the arrested activity of the Ego? In this: the Ego in Fichte's system is a finite Ego—it is the human soul. The Ego in Schelling's system is the Absolute—the Infinite—the All which Spinoza called Substance; and this Absolute manifests itself in two forms: in the form of the Ego and in the form of the Non-Ego—as Nature and as Mind.

The Ego produces the Non-Ego, but not by its own force, not out of its own nature; it is the universal Nature which works within us and which produces from out of us; it is universal Nature which here in us is conscious of itself. The souls of men are but the innumerable individual eyes with which the Infinite World-Spirit beholds himself.

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* Our readers will recognize here a favourite saying of Coleridge, many of whose remarks, now become famous, are almost *verbatim* from Schelling and the two Schlegels.

† *System des Transcendentalen Idealismus*, p. 7.

What is the Ego? It is one and the same with the act which renders it an Object to itself. When I say 'myself'—when I form a conception of my Ego, what is that but the Ego making itself an Object? Consciousness therefore may be defined the objectivity of the Ego. Very well; now apply this to the Absolute. He, too, must be conscious of himself, and for that he must realize himself objectively. We can now understand Schelling when he says, 'The blind and unconscious products of Nature are nothing but unsuccessful attempts of Nature to make itself an Object (*sich selbst zu reflectiren*); the so-called dead Nature is but an unripe Intelligence. The acme of its efforts—that is, for Nature completely to objectize itself—is attained through the highest and ultimate degree of reflection in Man—or what we call *Reason*. Here Nature returns into itself, and reveals its identity with that which in us is known as the Object and Subject.'*

This function of Reason is elsewhere more distinctly described as the total *indifference-point* of the subjective and objective. The Absolute he represents by the symbol of the magnet. Thus, as it is the same principle which divides itself in the magnet into the north and south poles, the centre of which is the indifference-point, so in like manner does the Absolute divide itself into the Real and Ideal, and holds itself in this separation as absolute indifference.† And as in the magnet every point is itself a magnet, having a North pole, a South pole, and a point of indifference, so also in the Universe, the individual varieties are but varieties of the eternal One. Man is a microcosm.

Reason is the indifference-point. Whoso rises to it, rises to the *reality* of things (*zum wahren Ansich*), which reality is precisely in the indifference of Object and Subject. The basis of Philosophy is therefore the basis of Reason; its knowledge is a knowledge of things as they *are*, *i. e.* as they are in Reason.‡

The spirit of Plotinus revives in these expressions. We have in them the whole key-stone of the Alexandrian School. The Intellectual Intuition by which we are to embrace the Absolute, is, as before remarked, but another form of the Alexandrian Ecstasy. Schelling was well aware that the Absolute, the Infinite as such, could not be known under the conditions of finity, cannot be known

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* *System des Transcendentalen Idealismus*, p. 5.

† Hence Schelling's philosophy is often styled the Indifference Philosophy.

‡ *Zeitschrift für Speculative Physik*, vol. ii. heft 2.

in personal consciousness. How, then, can it be known? By some higher faculty which discerns the identity of Object and Subject—which perceives the Absolute as Absolute, where all difference is lost in indifference.

There are three divisions in Schelling's system: the philosophy of Nature, the transcendental philosophy, and the philosophy of the Absolute.

His speculations with respect to Nature have met with considerable applause in Germany. Ingenious they certainly are, but vitiated in Method; incapable of verification. Those who are curious to see what he makes of Nature are referred to his *Zeitschrift für speculative Physik*, and his *Ideen zu einer Philosophie der Natur*. The following examples will serve to indicate the character of his speculations.*

Subject and Object being identical, the absolute Identity is the absolute totality named Universe. There can be no difference except a *quantitative* difference; and this is only conceivable with respect to individual existences. For the absolute Identity is *quantitative indifference* both of Object and Subject, and is only under this form. If we could behold all that is, and behold it in its totality, we should see a perfect quantitative equality. It is only in the scission of the Individual from the Infinite that quantitative difference takes place. This difference of Object and Subject is the ground of all finity; and, on the other hand, quantitative indifference of the two is Infinity.

That which determines any difference is a Power (*Potenz*), and the Absolute is the Identity of all Powers (*aller Potenzen*). All matter is originally liquid; *weight* is the power through which the Attractive and Expansive force, as the immanent ground of the reality of Matter, operates. Weight is the first *Potenz*. The second *Potenz* is Light—an inward intuition of Nature, as weight is the outward intuition. Identity with Light is Transparency. Heat does not pertain to the nature of Light, but is simply a *modus existendi* of Light. Newton's speculations upon Light are treated with disdain, as a system built upon illogical conclusions, a system self-contradictory, and leading to infinite absurdities. Nevertheless this absurd system has led men to many discoveries: it is the

* The reader must not complain if he do not understand what follows: intelligibility is not the characteristic of German speculation; and we are here only translating Schelling's words, without undertaking to enlighten their darkness.

basis of a gradually advancing science; while the views of Schelling lead to nothing except disputation. So with his explanation of Electricity: let us suppose it exact, and we must still acknowledge it to be useless. It admits of no verification; admits of no application. It is utterly sterile.

There are indeed general ideas in his *Natur-philosophie,* which not only approach the conceptions of positive science, but have given a powerful stimulus to many scientific intellects. The general law of polarity, for example, which he makes* the law of universal nature, is seen illustrated in physics and chemistry; although the presumed relation between heat and oxygen, which he makes the basis of all atomic changes, no chemist will nowadays accept. When, in the second part of this treatise, he theorizes on organic life, the result is similar, namely some general ideas which seem luminous are enforced by particular ideas certainly false. He maintains that vegetation and life are the products of chemical action: the first consisting in a continual deoxidation, the second in a continual oxidation; as soon as this chemical action ceases, death supervenes, for living beings exist only in the moment of *becoming.*† He only expresses the universally accepted idea of life when he makes it depend on the incessant disturbance and re-establishment of an equilibrium,‡ or, as De Blainville defines it, 'a continual movement of decomposition and recomposition.'

All the functions of Life are but the individualizations of one common principle; and all the series of living beings are but the individualizations of one common Life: this is the *Weltseele,* or *anima mundi.* The same idea had been expressed by Goethe, and has since been presented under various forms by Oken and many German naturalists. The idea of a dynamic progression in Nature, is also the fundamental idea in Hegel's philosophy.

Schelling, in his *Jahrbücher der Medicin,* says that Science is only valuable in as far as it is *speculative;* and by speculation he means the contemplation of God as He exists. Reason, inasmuch as it affirms God, cannot affirm anything else, and annihilates itself at the same time as an *individual* existence, as anything *out of* God. Thought (*das Denken*) is not my Thought; and Being is not my Being; for everything belongs to God or the All. There is no such thing as a Reason which *we have;* but only a Reason that *has us.* If nothing exists out of God, then must the know-

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* *Von der Weltseele,* p. 25 *sq.* † *Ibid.,* p. 181. ‡ *Ibid.,* p. 284.

ledge of God be only the infinite knowledge which God has of himself in the eternal Self-affirmation. God is not the highest, but the only One. He is not to be viewed as the summit or the end, but as the centre, as the All in All. Consequently there is no such thing as a being lifted up to the knowledge of God; but the knowledge is *immediate* recognition.

If we divest Schelling's speculations of their dialectical forms, we shall arrive at the following results:—

Idealism is one-sided. Beside the Subject there must exist an Object: the two are identical in a third, which is the Absolute. This Absolute is neither Ideal nor Real—neither Mind nor Nature—but both. This Absolute is God. He is the All in All; the eternal source of all existence. He realizes himself under one form, as an objectivity; and under a second form as a subjectivity. He becomes conscious of himself in man: and this man, under the highest form of his existence, manifests Reason, and by this Reason God knows himself. Such are the conclusions to which Schelling's philosophy leads us. And now, we ask, in what does this philosophy differ from Spinozism?

The Absolute, which Schelling assumes as the indifference-point of Subject and Object, is but the *πρῶτον ἀγαθόν* and primal Nothing, which forms the first Hypostasis of the Alexandrian Trinity. The Absolute, as the Identity of Subject and Object, being neither and yet both, is but the Substance of Spinoza, whose attributes are Extension and Thought.

With Spinoza also he agreed in giving only a phenomenal reality to the Object and Subject. With Spinoza he agreed in admitting but one existence—the Absolute.

But, although agreeing with Spinoza in his fundamental positions, he differed with him in Method, and in the applications of those positions. In both differences the superiority, as it seems to me, is incontestably due to Spinoza.

Spinoza deduced his system very logically from one fundamental assumption, viz. that whatever was true of ideas was true of objects. This assumption itself was not altogether arbitrary. It was grounded upon the principle of certitude, which Descartes had brought forward as the only principle which was irrefragable. Whatever was found to be distinct and *à priori* in Consciousness, was irresistibly true. Philosophy was therefore deductive; and Spinoza deduced his system from the principles laid down by Descartes.

Schelling's Method was very different. Aware that human know-

ledge was necessarily finite, he could not accept Spinoza's Method, because that would have given him only a knowledge of the finite, the conditioned; and such knowledge, it was admitted, led to scepticism. He was forced to assume another faculty of knowing the truth, and this was the Intellectual Intuition. Reason which could know the Absolute was only possible by transcending Consciousness and sinking into the Absolute. As Knowledge and Being were identical, to know the Infinite, we must *be* the Infinite, *i.e.* must lose our individuality in the universal.

Consciousness, then, which had for so long formed the basis of all Philosophy, was thrown over by Schelling, as incompetent to solve any of its problems. Consciousness was no ground of certitude. Reason was the organ of Philosophy, and Reason was *impersonal*. The Identity of Being and Knowing took the place of Consciousness, and became the basis of all speculation. We shall see to what it led in Hegel.

Our notice of Schelling has necessarily been brief, not because he merited no greater space, but because to have entered into details with any satisfaction, would have carried us far beyond our limits. His works are not only numerous, but differ considerably in their views. All we have endeavoured to represent is the ideas which he produced as developments of Fichte, and which served Hegel as a basis.*

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* A French translation of Schelling's most important work, under the title of *Système de l'Idéalisme transcendental*, by P. Grimblot, the translator of Fichte, has appeared; also a version of *Bruno; ou, Les Principes des Choses*.

CHAPTER III.

HEGEL.

§ I. Life of Hegel.

GEORGE FREDERICK WILLIAM HEGEL was born at Stuttgard, the 27th of August, 1770. He received that classical education which distinguished the Wirtembergian students beyond all others; and in his eighteenth year he went to Tübingen, to pursue his theological and philosophical studies. He was there a fellow-student with Schelling, for whom he contracted great esteem. The two young thinkers communicated to each other their thoughts, and discussed their favourite systems. In after-life, when opposition had sundered these ties, Hegel never spoke of this part of their connection without emotion. In his twentieth year he had to give up all his plans for a professorship, and was content (hunger impelling) to accept the place of private tutor, first in Switzerland, and subsequently in Frankfort.

Early in 1801 his father died; and the small property he inherited enabled him to relinquish his tutorship, and to move to Jena, where he published his dissertation *De Orbitis Planetarum*. This work was directed against the Newtonian system of Astronomy. It was an application of Schelling's Philosophy of Nature; and in it Newton was treated with that scorn which Hegel never failed to heap upon Empirics, *i. e.* those who trusted more to experience than to logic. In the same year he published his *Difference between Fichte and Schelling*, in which he sided with the doctrines of his friend, whom he joined in editing the *Critical Journal of Philosophy*. It is in the second volume of this Journal that we meet with his celebrated essay *Glauben und Wissen* (Faith and Knowledge), in which Kant, Jacobi, and Fichte are criticized.

At Jena he enjoyed the society of Goethe and Schiller. The former, with his usual sagacity, detected the philosophical genius which as yet lay undeveloped in Hegel; of which more may be read in Goethe and Schiller's *Correspondence*. Hegel, on the other hand, was to the last one of Goethe's staunchest admirers; and many a

gleam of lustre is shed over the pages of the philosopher by the frequent quotations of the poet.

At the University of Jena, Hegel then held the post of *Privat-docent;* but his lectures had only four listeners. These four however were all remarkable men: Gabler, Troxler, Lachmann, and Zellmann. On Schelling's quitting Jena, Hegel filled his chair; but filled it only for one year. Here he published his *Phänomenologie des Geistes*. He finished writing this work on the night of the ever-memorable battle of Jena. While the artillery was roaring under the walls, the philosopher was deep in his work, unconscious of all that was going on. He continued writing, as Archimedes at the siege of Syracuse continued his scientific researches. The next morning, manuscript in hand, he steps into the streets, proceeding to his publisher's, firmly convinced that the interests of mankind are bound up with that mass of writing which he hugs so tenderly. The course of his reverie is somewhat violently interrupted; bearded and gesticulating French solders arrest the philosopher, and significantly enough inform him that, for the present, the interests of men lie elsewhere than in manuscripts. In spite of French soldiers however the work in due time saw the light, and was welcomed by the philosophical world as a new system—or rather as a new modification of Schelling's system. The editorship of the Bamberg newspaper was then offered him, and he quitted Jena. He did not long remain at Bamberg; for in the Autumn of 1808 we find him Rector of the Gymnasium College at Nürnberg. He shortly after married Fräulein von Tucher, with whom he passed a happy life, and who bore him two sons. In 1816 he was called to the chair of Heidelberg, and published in 1817 his *Encyclopädie der Philos. Wissenschaften,* which contains an outline of his system. This work so exalted his reputation that in 1818 he was called to the chair of Berlin, then the most important in Germany. He there lectured for thirteen years, and formed a school, of which it is sufficient to name its members Gans, Rosenkranz, Michelet, Werder, Marheinecke, and Hotho.

Hegel was seized with the cholera in 1831, and after a short illness expired, in the sixty-second year of his age, on the 24th of November, the anniversary of the death of Leibnitz.

§ II. Hegel's Method.

Schelling's doctrines were never systematically co-ordinated. He

was subtle, ardent, and audacious; but he disregarded precision; and stood in striking contradiction to his predecessors Kant and Fichte in the absence of logical forms.

The effect of his teaching was felt more in the department of the philosophy of Nature than elsewhere. Crowds of disciples, some of them, as Oken and Steffens, illustrious disciples, attempted the application of his principles; and after a vast quantity of ingenious but sterile generalization, it was found that these principles led to no satisfactory conclusion.

Schelling's ideas were however very generally accepted in the philosophical world at the time Hegel appeared. These ideas were thought to be genuine intuitions of the truth; the only drawback was their want of systematic co-ordination. They were inspirations of the truth; and demonstrations were needed. The position Hegel was to occupy became therefore very clear. Either he must destroy those ideas and bring forward others; or he must accept them, and, in accepting, systematize them. This latter was no easy task, and this was the task he chose. In the course of his labours he deviated somewhat from Schelling, because the rigorous conclusions of his logic made such deviations necessary; but these are, after all, nothing but modifications of Schelling's ideas; very often nothing but different expressions for the same ideas.

What then constitutes Hegel's glory? What is the nature of his contribution to philosophy, which has placed him on so high a pedestal of renown? It is nothing less than the invention of a new Method.*

The invention of a Method has always been considered the greatest effort of philosophical genius, and the most deserving of the historian's attention. A Method is a *path of transit*. Whoso discovers a path whereon mankind may travel in quest of truth, has done more towards the discovery of truth than thousands of men merely speculating. What had the observation and speculation of centuries done for astronomy before the right path was found? And if a Method could be found for Philosophy—if a path of transit from the phenomenal to the noumenal world could be found—should we not then be quickly in possession of the truth?

A Method is all-important. The one invented by Descartes

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* This is the claim put up by his disciple Michelet, *Gesch. der Systeme der Philos.*, ii. 604–5; who declares Hegel's method to be all that can properly be called his own. Comp. Hegel's *Vermischte Schriften*, ii. 479.

seemed promising; but it led to Malebranche and Spinoza. The one invented by Locke had obvious excellencies; but it was a path of transit to Berkeley and Hume. That of Kant led to Fichte and Scepticism.

Curious to consider! In the modern as in the ancient world, the inevitable results of a philosophical Method are Idealism and Scepticism. One class of minds is led to Idealism or Mysticism; another class is led to Scepticism. But as both these conclusions are repugnant to the ordinary conclusions of mankind, they are rejected, and the Method which led to them is also rejected. A new one is found; hopes beat high; truth is about to be discovered; the search is active, and the result—always the same—repugnant Idealism or Scepticism. Thus struggling and baffled, hoping and dispirited, has Humanity for ever renewed the conflict, without once gaining a victory. Sisyphus rolls up the heavy stone, which no sooner reaches a certain point than down it rolls to the bottom, and all the labour is to begin again.

We have already traced the efforts of many noble minds; we have seen the stone laboriously rolled upwards, and seen it swiftly roll down again. We have seen Methods discovered; we have followed adventurous spirits as they rushed forward to conquest; and seen the discouragement, the despair which possessed them, as they found their paths leading only to a yawning gulf of scepticism, or a baseless cloud-land of Idealism. We have now to witness this spectacle once more. We have to see whither Hegel's Method can conduct us.

And what is this Method which Hegel discovered? Accepting as indisputable the identity of Object and Subject, he was forced also to accept the position, that whatever was true of the thought was true of the thing. In other words, Mind and Matter being identical, Ideas and Objects were correlates, and equally true. This is the position upon which Descartes stood; the position upon which Spinoza stood. Schelling and Hegel arrived at this position by a different route, but they also took their stand upon it.

Now, it is evident that such a position is exposed to attacks on all sides; to none more so than to the contradictions which rise up from within it. If whatever is true of Ideas is true also of Objects, a thousand absurdities bristle up. Thus, as Kant said, there is considerable difference between *thinking* we possess a hundred dollars, and *possessing* them. Hegel's answer is delicious: he declares that 'Philosophy does not concern itself with such things as a hundred

dollars!' (*daran ist philosophisch nichts zu erkennen*). Philosophy directs its thoughts only towards that which is necessary and eternal.

Very well: let such miserable illustrations as that of dollars be banished from discourse; let us concern ourselves only with what is necessary and eternal; let us confine ourselves to abstractions. Are there no contradictions here between Thoughts and Realities? For example, we have the Thought of Non-existence: does therefore this Non-existence which is our Thought also possess an objective being? *Is* there a Non-existence?

We have chosen this idle question, because Hegel himself has forced us to it. He boldly says, that the Non-existence—the Nothing—*exists*, because it is a Thought (das Nichts *ist*; denn es ist ein Gedanke). It is not however merely a Thought, but it is the same Thought as that of pure Being (*Seyn*), viz. an entirely *unconditioned* Thought.

In this, coupled with his famous axiom, that 'Being and Non-Being are the same' (*Seyn und Nichts ist dasselbe*), we have two of the curious results to which his Method led him. It was the Method of Descartes, founded upon Descartes' principle of the truth of *ideas* being equivalent to the truth of *things*; but inasmuch as this met with strong opposition from various sides, Hegel resolved to give it a deeper, firmer basis, a basis that went underneath these contradictions. The basis was his principle of the *identity of contraries*.

Two contraries are commonly supposed to exclude each other reciprocally: Existence excludes Non-Existence. This notion Hegel pronounces to be false. Everything is contradictory in itself: contradiction forms its essence: its identity consists in being the union of two contraries. Thus Being (*Seyn*) considered absolutely —considered as unconditioned—that is to say, as Being in the abstract, apart from any individual thing, is the same as Nothing. Existence is therefore identical with its negation. But to conclude that there is not Existence, would be false; for the abstract Nothing (*Nichts*) is at the same time the abstract Being. We must therefore unite these two contraries, and in so doing we arrive at a middle term—the realization* of the two in one, and this is *conditioned* Existence—it is the world.

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* The original word is *werden*—the *becoming*. It is much used in German speculation to express the transition from Non-being to Being.

Here is another example: in pure light,—that is, light without colour or shadow,—we should be totally unable to see anything. Absolute clearness is therefore identical with absolute obscurity—with its negation, in fact; but neither clearness nor obscurity are complete alone: by uniting them we have clearness mingled with obscurity; that is to say, we have Light properly so called.

Hegel thus seized the bull by the horns. Instead of allowing himself to be worsted by the arguments derived from the contradictions to which the identity of Existence and Knowledge was exposed, he at once met the difficulty by declaring that the identity of contraries was the very condition of all existence; without a contrary nothing could come into being. This was logical audacity which astounded his countrymen, and they have proclaimed this feat worthy of immortal glory. A new light seemed to be thrown upon the world: a new aspect was given to all existences. Being was at the same time Non-Being; Subject was at the same time Object; and Object was Subject: Force was at the same time Impotence; Light was also Darkness, and Darkness was also Light.

> 'Nothing in this world is single;
> All things, by a law divine,
> In one another's being mingle.'

The merit of this discovery, whatever may be its value, is considerably diminished when we remember how distinctly it was enunciated in ancient Greece. Heraclitus had told us how 'All is, and is not; for though it comes into being, yet it forthwith ceases to be.' Empedocles had told us how there was 'Nothing but a mingling and then a separation of the mingled.' Indeed the constant flux and reflux of life, the many changes, and the compound nature of all things, must early have led men to such a view. Hegel himself admits that all the positions maintained by Heraclitus have been by him developed in his Logic. What then was wanting to Heraclitus —what is the great merit of Hegel? A perception of the logical law of the identity of contraries. To this Hegel has the sole claim.

Here, then, is the foundation-stone of Hegel's system. He adopts the principle of the identity of Subject and Object. This principle being pronounced false, because it leads to manifest contradictions, Hegel replies that the principle is true; and that it *must* lead to contradictions, because the identity of contraries is the condition of all existence.

Such is the Method which admiring disciples extol as the greatest effort of Philosophy, as the crown of all previous speculations;

and even in France it has been in some quarters accepted as a revelation.

The *law* being given, we may now give the *process*. Let us take any one Idea (and with Hegel an Idea is a reality, an Object, not simply a modification of the Subject); this Idea by its inherent activity tends to develope that which is within it. This development operates a division of the Idea into two parts—a positive and a negative. Instead of one Idea we have therefore two, which reciprocally exclude each other. The Idea therefore, by the very act of development, only conduces to its own negation. But the *process* does not stop there. The negation itself must be negatived. By this negation of its negation, the Idea returns to its primitive force. But it is no longer the same. It has developed all that it contained. It has absorbed its contrary. Thus the negation of the negation, by *suppressing* the negation, at the same time *preserves* it.*

We may, by way of anticipation, observe that Hegel's notion of God becoming conscious of Himself in Philosophy, and thereby attaining His highest development, is founded on the above process. God as pure Being can only pass into reality through a negation; in Philosophy He *negatives this negation*, and thus becomes a *positive* affirmation.

§ III. Absolute Idealism.

We have seen Hegel's Method. Whether that be a path of transit to the domain of truth, or only to the cloudland of mysticism and the bogs of absurdity, our readers will very soon decide. Meanwhile we must further detail Hegel's opinions; we must see whither his Method did lead him.

As everything contains within itself a contradiction, and as the identity of the two constitutes its essence, so we may say that Schelling's conception of the identity of Subject and Object was not altogether exact. He assumed the reality of both of these *poles* of the magnet; and the identity he called the point of indifference between them. These two extremities were always separate, though identified. Hegel declared that the essence of all relation—that which is true and positive in every relation—is not the

* This play upon words is assisted by the German *aufheben*, which means 'to suppress' as well as 'to preserve.' See Ott, *Hegel et la Philos. Allemande*, p. 80.

two terms related, but the *relation itself.* This is the basis of Absolute Idealism.

It may be thus illustrated: I see a tree. Psychologists tell me that there are three things implied in this one fact of vision, viz. a tree, an image of that tree, and a mind which apprehends that image. Fichte tells me that it is I alone who exist: the tree and the image of the tree are but one thing, and that is a modification of my mind. This is *Subjective Idealism.* Schelling tells me that both the tree and my Ego are existences equally real or ideal, but they are nothing less than manifestations of the Absolute. This is *Objective Idealism.* But, according to Hegel, all these explanations are false. The only thing really existing (in this one fact of vision) is the Idea—the *relation.* The Ego and the Tree are but two terms of the relation, and owe their reality to it. This is *Absolute Idealism.*

Of the three forms of Idealism this is surely the most preposterous; and that any sane man—not to speak of a man so eminent as Hegel—should for an instant believe in the correctness of the logic which 'brought him to this pass,'—that he should not at once reject the premisses from which such conclusions followed,—must ever remain a wonder to all sober thinkers,—must ever remain a striking illustration of the unbounded confidence in bad logic which distinguishes Metaphysicians—

'Gens ratione ferox, et mentem pasta chimæris.'

Truly, a race mad with logic, and feeding the mind with chimeras.

What does this Absolute Idealism bring us to? It brings us to a world of mere 'relations.' The Spinozistic notion of 'Substance' was too gross. To speak of Substance, was to speak only of *one* term of a relation. The Universe is but the Universe of Ideas, which are at once both objective and subjective, their essence consisting in the relation they bear to each other, in the identity of their contradiction.

Remark also that this Absolute Idealism is nothing but Hume's Scepticism, in a dogmatical form. Hume denied the existence of Mind and Matter, and said there was nothing but Ideas. Hegel denies the existence of both Object and Subject, and says there is nothing but the 'relations' of the two. He blames Kant for having spoken of Things as if they were only appearances to us (*Erscheinungen für uns*) while their real nature (*Ansich*) was inaccessible. The real relation, he says, is this: that the Things we know are not only appearances to us, but are in themselves mere ap-

pearances (*sondern an sich blosse Erscheinungen*). The real objectivity is this: that our Thoughts are not only Thoughts, but at the same time are the reality of Things.*

This is *the* Philosophy—not *a* Philosophy, remember—not a system which may take its place amongst other systems. No, it is the Philosophy *par excellence*. We have Hegel's word for it;† we have the confirmation of that word by many ardent disciples. True it is, that some of the young Hegelians, when reproached with the constant changes they introduce, reply that it belongs to the nature of Philosophy to change. But these are inconsiderate, rash young men. Mature and sober thinkers (of Hegel's school) declare that, although some improvements are possible in detail, yet on the whole Hegel has given *the* Philosophy to the world.

And this philosophy is not a system of doctrines whereby man is to guide himself. It is something far greater. It is the contemplation of the self-development of the Absolute. Hegel congratulates mankind upon the fact of a new epoch having dawned. 'It appears,' says he, 'that the World-Spirit (*Weltgeist*) has at last succeeded in freeing himself from all encumbrances, and is able to *conceive himself as Absolute Intelligence* (*sich als absoluten Geist zu erfassen*). . . . For he is this only in as far as he knows himself to be the Absolute Intelligence: *and this he knows only in Science; and this knowledge alone constitutes his true existence.*'‡

Such pretensions would be laughable, were they not so painful to contemplate. To think not only of one man, and that one remarkable for the subtlety of his intellect, a subtlety which was its bane, together with many other men—some hundred or so, all rising above the ordinary level of ability—one and all cultivating as the occupation of their lives a science with such pretensions, and with such a Method as that of the identity of contraries! The delusions daily to be seen are those of ignorance, and only depend upon ignorance. But the delusions of Metaphysics are the delusions of an ambitious intelligence which 'o'er-leaps itself.' Men such as Fichte, Schelling, and Hegel, for example, belong incontestably to a high order of intelligences; yet we have seen to what their reasonings brought them; we have seen what absurdities they

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* 'Dass die Gedanken nicht bloss unsere Gedanken, sondern zugleich das Ansich der Dinge und des Gegenständlichen überhaupt sind.'—*Encyclopädie*, p. 89; see also p. 97. The whole of this Introduction to the *Encyclopädie* is worth consulting.

† *Gesch. der Philos.* iii. 690.

‡ *Ibid.*, iii. 689.

could accept, believing they had found the truth. Hegel especially impresses you with a sense of his wonderful power. His works we have always found very suggestive; his ideas, if repugnant to what we regard as the truth, are yet so coherent, so systematically developed, so obviously coming from matured meditation, that we have always risen from the perusal with a sense of the author's greatness. We allude especially to his *Lectures on Æsthetics*, his *History of Philosophy*, his *Philosophy of History*, and his *Philosophy of Religion*.

As for the system itself, we may leave to all readers to decide whether it be worthy of any attention, except as an illustration of the devious errors of speculation. A system which begins with assuming that Being and Non-Being are the same, because Being in the abstract must be conceived as the Unconditioned, and so must Non-Being, therefore both, as unconditioned, are the same; a system which proceeds upon the identity of contraries as the method of Philosophy; a system in which Thought is the same as the Thing, and the Thing is the same as the Thought; a system in which the only real positive existence is that of simple Relation, the two terms of which are Mind and Matter; this system, were it wholly true, leaves all the questions for which science is useful as a light, just as much in the dark as ever, and is therefore unworthy the attention of earnest men working for the benefit of mankind.

Not only is it useless; it is worse, it is pernicious. The facility with which men can throw all questions into the systematic obscurity of metaphysics, has long been the bane of German Literature and Thought. In England and France we have been saved from perpetuating the frivolous discussions of the Schoolmen, mainly because we have retained their nomenclature and terminology, and are warned by these from off scholastic ground; but the Germans, having invented a new philosophical language, do not perceive that the new terms disguise old errors: they fail to recognize in *Irrlicht* the familiar face of *Ignis fatuus*.

§ IV. Hegel's Logic.

Philosophy being the contemplation of the self-development of the Absolute, or, as Hegel sometimes calls it, the representation of the Idea (*Darstellung der Idee*), it first must be settled in what directions this development takes place.

The process is this. Everything must be first considered *per se*

(*an sich*); next in its negation, as some *other* thing (*Andersseyn*). These are the two terms—the contraries; but they must be identified in some third, or they cannot exist; this third is the Relation of the two (the *Anundfürsichseyn*). This is the affirmation which is founded on the negation of a negation: it is therefore positive, real.

The Absolute, which is both Thought and Being, must be considered in this triple order, and Philosophy falls into three parts:—

I. Logic, the science of the *Idee* an und für sich.*

II. Nature-philosophy as the science of the *Idee* in its *Anderseyn.*

III. Philosophy of Intelligence, as the *Idee* which has returned from its *Anderseyn* to itself.

Logic, in this system, has a very different meaning from that usually given to the word. It is, indeed, equally with the common logic, an examination of the forms of Thought; but it is more:—it is an examination of Things, no less than of Thoughts. As Object and Subject are declared identical, and whatever is true of the Thought is equally true of the Thing, since the Thought is the thing, Logic, of course, takes the place of the ancient Logic and, at the same time, of Metaphysics. It is the generation of all abstract ideas. Consequently it contains the whole system of Science; and the other parts are but the application of this Logic.

Hegel's *Logic* is contained in three stout volumes of dry hard scholasticism. It is a representation of the *Idee,* in its process of pure thought, free from all contact with objects. It is wholly abstract. It begins with pure Being. This pure Being, in virtue of its purity, is *unconditioned;* but that which has no conditions has no existence: it is a pure abstraction. Now a pure abstraction is also the *Nothing* (*das Nichts*): it also has no conditions; its unconditionalness makes its nothingness. The first proposition in Logic is, therefore, 'Being and Non-Being are the same.'

Hegel admits the proposition to be somewhat paradoxical, and is fully aware of its openness to ridicule; but he is not a man to be scared by a paradox, to be shaken by a sarcasm. He is aware that stupid common-sense will ask, 'whether it is the same if my house

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* The *Idee* is but another term for the Absolute. We shall use it, rather than Idea, because the English word cannot be employed without creating unnecessary confusion.

my property, the air I breathe, this town, sun, the law, mind, or God, exist or not.' Certainly, a very pertinent question: how does he answer it? 'In such examples,' he says, 'particular ends—utility, for instance—are understood, and then it is asked if it is indifferent to me whether these useful things exist or not? But, in truth, Philosophy is precisely the doctrine which is to free man from innumerable finite aims and ends, and to make him so indifferent to them that it is really all the same whether such things exist or not.' Here we trace the Alexandrian influence;—except that Plotinus would never have had the audacity to say that Philosophy was to make us indifferent whether God existed or not; and it must have been a slip of the pen which made Hegel include God in the examples: a slip of the pen, or else the 'rigour of his pitiless logic,' of which his disciples talk. 'Pitiless' indeed!—more intrepid absurdity it would be difficult to find.

Remark, also, the evasive nature of his reply. Common sense suggests to him a plain direct question, not without interest. This question, plain as it is, goes to the bottom of his system. He evades it by answering, that Philosophy has nothing to do with the interests of men. Very true; his system *has* nothing to do with them. But the question put was not, 'Has Philosophy to concern itself with the interests of mankind?' The question put was, 'If, as you say, Being and Non-Being are the same, is it the same thing to have a house and not to have it?' Hegel might have given a better answer even upon his own principles.

To return however. The first proposition has given us the two contraries; there must be an identity—a relation—to give them positive reality. As pure Being, and as pure Non-Being, they have no reality; they are mere potentialities. Unite them, and you have the *Becoming* (*Werden*), and that is reality. Analyze this idea of Becoming, and you will find that it contains precisely these two elements,—a Non-Being from which it is evolving, and a Being which is evolved.

Now these two elements, which reciprocally contradict each other, which incessantly tend to absorb each other, are only maintained in their reality by means of the relation in which they are to each other;—that is, the point of the magnet which keeps the poles asunder, and by keeping them asunder prevents their annihilating each other. The Becoming is the first concrete Thought we can have, the first conception; Being and Non-Being are pure abstractions.

A question naturally suggests itself as to how Being and Non-Being pass from Abstractions into Realities. The only answer Hegel gives us is that they *become* Realities; but this is answering us with the very question itself. We want to know *how* they become. In themselves, as pure Abstractions, they have no reality; and although two negatives make an affirmative in language, it is not so evident how they can accomplish this in fact. The question is of course insoluble; and those Hegelians whom we questioned on the point unanimously declared it to be one of those truths (very numerous in their system) which can be comprehended, but not proved.

Let us grant the Becoming. It is the identity of Being and Non-Being; and as such it is Being as *determined,* conditioned. All determination (*Bestimmung*) is Negation.* Therefore, in order that Being should become, it must suffer first a negation; the *Ansichseyn* must also be *Anderseyn,* and the relation of the two is total reality, the *Anundfürsichseyn.*

Quality is the first negation: it is the reality of a thing. That which constitutes Quality is the negation which is the condition of its Being. Blue, for example, is blue only because it is the negation of red, green, purple, etc.; a meadow is a meadow only because it is not a vineyard, a park, a ploughed field, etc.

Being, having suffered a Negation, is determined as Quality,—it is Something, and no longer an Abstraction. But this something is limited by its very condition; and this limit, this negation, is external to it: hence Something implies Some-other-thing. There is a *This* and a *That.* Now the Something and the Some-other-thing, the *This* and the *That,* are the *same* thing. *This* is a tree; *That* is a house. If I go to the house, it will then be the *This,* and the tree will be *That.* Let the tree be the Something, and the house the Some-other-thing, and the same change of terms may take place. This proves that the two are identical. The Something carries its opposite (other-thing) within itself; it is constantly becoming the other-thing. Clearly showing that the only positive reality is the *Relation* which always subsists throughout the changes of the terms.

This, it must be owned, looks like the insanity of Logic. It is not however unexampled in Hegel's works. In his *Phänomenologie des*

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* This, as many other ideas, is borrowed from Spinoza, in whose system it has real significance. In Hegel's it is a mere play upon words.

Geistes, he tells us that perception gives us the ideas of Now, Here, This, etc. And what is the Now? At noon I say, '*Now* it is day.' Twelve hours afterwards I say, '*Now* it is night.' My first affirmation is therefore false as to the second, my second false as to the first: which proves that the *Now* is a general idea; and as such a real existence, independent of all particular *Nows*.

Our readers are by this time probably quite weary of this frivolous Logic; we shall spare them any further details. If they wish further to learn about Quantities, Identities, Diversities, etc., they must consult the original.

Those who are utter strangers to German speculation will wonder, perhaps, how it is possible for such verbal quibbles to be accepted as Philosophy. But, in the first place, Philosophy itself, in all its highest speculations, is but a more or less ingenious playing upon words. From Thales to Hegel, verbal distinctions have always formed the ground of Philosophy, and must ever do so as long as we are unable to penetrate the essence of things. In the second place, Hegel's *Logic* is a work requiring prodigious effort of thought to understand: so difficult and ambiguous is the language, and so obscure the meaning. Now, when a man has once made this effort, and succeeded, he is very apt to over-value the result of all that labour, and to believe what he has found, to be a genuine truth. Thirdly, Hegel is very consistent; consistent in audacity, in absurdity. If the student yields assent to the premisses, he is sure to be dragged irresistibly to the conclusions. Fourthly, the reader must not suppose that the absurdities of Hegel's system are so apparent in his works as in our exposition. We have exerted ourselves to the utmost to preserve the real significance of his speculations; but we have also endeavoured to bring them into the clear light of day. Anything except a *verbal* translation would reveal some aspects of the absurdity, by the very fact of bringing it out of the obscurity with which the German terminology veils it. The mountain looming through a fog turns out to be a miserable hut as soon as the fog is scattered; and so the boasted system of Absolute Idealism turns out to be only a play upon words, as soon as it is dragged from out the misty terminology in which it is enshrouded.

§ V. Application of the Method to Nature and History, Religion and Philosophy.

Having exhibited the various evolutions of the *Idee* as pure Thought, Hegel undertakes to exhibit its objective evolutions in the domain of Nature.

In the former attempt he had only to deal with abstractions; and it was no such difficult matter to exhibit the 'genesis of ideas'—the dependence of one formula upon another. Verbal distinctions were sufficient there. But verbal distinctions, audacious logic, and obscure terminology avail nothing in attacking the problems presented to us by Nature; and in endeavouring to give scientific solutions, Nature is not to be coerced. Aware of the difficulties—seeing instinctively that the varieties of Nature could not be reduced to the same simplicity as the varieties of the *Idee*—as Thought had been reduced in his *Logic*—Hegel asserted that the determinations of the *Idee* in its *exteriority* could not follow the same march as the determinations of the *Idee* as Thought. Instead of generating each other reciprocally, as in the *Logic*, these determinations in Nature have no other connection than that of co-existence; sometimes indeed they appear isolated.

When we look abroad upon Nature, we observe an endless variety of transformations. At first these seem without order; on looking deeper, we find that there is a regular series of development from the lowest to the highest. These transformations are the struggles of the *Idee* to manifest itself *objectively*. Nature is a dumb Intelligence striving to articulate. At first she mumbles; with succeeding efforts she articulates; at last she speaks.

Every modification which the *Idee* undergoes in the sphere of pure Thought it endeavours to express in the sphere of Nature. And thus an object is elevated in the scale of creation in so far as it resumes within itself a greater number of qualities: inorganic matter is succeeded by organic, and amongst organized beings there is a graduated scale from the plant up to man. In man the *Idee* assumes its highest grade. In Reason it becomes conscious of itself, and thereby attains real and positive existence—the highest point of development. Nature is divine in principle (*an sich*), but it is a mistake to suppose it divine *as it exists*. By the Pantheists Nature is made one with God, and God one with Nature. In truth, Nature is but the exteriority (*Aeusserlichkeit*) of God: it is the pas-

sage of the *Idee* through imperfection (*Abfall der Idee*). Observe moreover that Nature is not only external in relation to the *Idee*, and to the subjective existence of the *Idee*, namely Intelligence; but exteriority constitutes the condition in virtue of which Nature is Nature (*sondern die Aeusserlichkeit macht die Bestimmung aus, in welcher sie als Natur ist*).

The Philosophy of Nature is divided into three sections—Mechanics, Physics, and Physiology. Into the details, we are happy to say, our plan forbids us to enter; or we should have many striking illustrations of the futility of that Method which pretends to construct the scheme of the world *à priori*. Experimental philosophers —Newton especially—are treated with consistent contempt. Hegel is not a timid speculator; he recoils from no consequence; he bows down to no name; he is impressed by no fact, however great. That Newton's speculations should be no better than drivel, and his 'discoveries' no better than illusions, were natural consequences of Hegel's fundamental theories. That all Europe had been steadily persevering in applying Newton's principles, and extending his discoveries,—that Science was making gigantic strides, hourly improving man's mastery over Nature, hourly improving the condition of mankind,—this fact, however great it might appear to others, when coupled with the other fact, that upon the ontological Method no discoveries had yet been made, and none seemed likely to be made—appeared to Hegel as unworthy of a philosopher's notice. The interests of mankind were vulgar considerations, for which there would always be abundant vulgar minds. The philosopher had other objects.

The third and last part of Hegel's system is the Philosophy of Intelligence. Therein the *Idee* returns from Nature to itself, and returns through a consciousness of itself.

Subjectively the *Idee* first manifests itself as a Soul; it then returns upon itself, and becomes Consciousness; and finally renders itself an Object to itself, and then it is Reason.

Objectively the *Idee* manifests itself as Will, and realizes itself in History and in Law.

The Subjective and Objective manifestations being thus marked out, we have now to see in what manner the identity of the two will manifest itself. The identity of the Objective and Subjective is the *Idee*, as Intelligence, having consciousness of itself in individuals, and realizing itself as Art, as Religion, and as Philosophy.

The 'Lectures on the Philosophy of History,'* edited by the late accomplished Professor Gans, is one of the pleasantest books on the subject we ever read. The following ideas will be sufficient to give an indication of its method.

History is the development of the *Idee* objectively—the process by which it attains to a consciousness of itself by explaining itself.† The condition of Intelligence is to know itself; but it can know itself only after having passed through the three phases of the method, namely, affirmation, negation, and negation of negation, as the return to consciousness endowed with reality. It is owing to these phases that the human race is perfectible.

States, Nations, and Individuals represent the determinate moments of this development. Each of these moments manifests itself in the constitution, in the manners, in the creeds, in the whole social state of any one nation. For this nation it is what we call the spirit of the age: it is the only possible truth, and by its light all things are seen. But with reference to the absolute *Idee*, all these particular manifestations are nothing but *moments* of transition—instruments by which the transition to another higher moment is prepared. Great men are the incarnations of the spirit of the age.

It is not every nation that constitutes itself into a state: to do that, it must pass from a family to a horde, from a horde to a tribe, and from a tribe to a state. This is the formal realization of the *Idee*.

But the *Idee* must have a theatre on which to develope itself. The Earth is that theatre; and as *it* is the product of the *Idee* (according to the *Naturphilosophie*), we have the curious phenomenon of an actor playing upon a stage—that stage being himself! But the Earth, as the geographical basis of History, has three great divisions:—1. The mountainous regions. 2. The plains and valleys. 3. The coasts and mouths of rivers. The first represents the primitive condition of mankind; the second the more advanced condition, when society begins to be formed; the third, when, by means of river-communication, the activity of the human race is allowed free development in all directions, particularly

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* *Werke*, vol. ix.

† History is a sort of Theodicea; the merit of originality, however, which Hegel claims (*Einleitung*, p. 20), is due to Vico, from whom he has largely borrowed; Vico expressly calls his New Science a *Civil Theology of Divine Providence*. See *La Science Nouvelle*, livre i. ch. iv.

of commerce. This is another of the ideas of Vico,* and is in contradiction to all history.

The great *moments* of History are four. 1. In the *East* we have the predominance of substantiality: the *Idee* does not know its freedom. The rights of men are unknown because the East knows only that *one* is free. This is the *childhood* of the World. 2. In Greece we have the predominance of individuality. The *Idee* knows that it is free, but only under certain forms, that is to say, only *some* are free. Mind is still mixed with Matter and finds its expression therein; this expression is Beauty. This is the *youthhood* of the World. 3. In Rome we have opposition between the Objective and Subjective: the political universality and individual freedom both developed yet not united. This is the *manhood* of the world. 4. In the Teutonic Nations we have the unity of the contradiction—the *Idee* knowing itself; and instead of supposing like Greece and Rome that *some* only are free, it knows that *all* men are free. This is the *old-age* of the world; but although the old-age of body is weakness, the old-age of Mind is ripeness. The first form of government which we see in History is Despotism; the second is Democracy and Aristocracy; the third is Monarchy.*

On reading over this meagre analysis, the ingenious speculations of the original will scarcely be recognized. Such is the art with which Hegel clothes his ideas in the garb of Philosophy, that though aware that he is writing fiction, not history, and giving us perversions of notorious facts as the laws of historical development; —telling us that the Spirit of the World manifests himself under such and such phases, when it is apparent to all that, granting the theory of this World-spirit's development, the phases were *not* such as Hegel declares them to have been;—although we are aware of all this, yet is the book so ingenious and amusing, that it seems almost unfair to reduce it to such a *caput mortuum* as our analysis. Nevertheless the principles of his philosophy of History are those we have given above. The application of those principles to the explication of the various events of History, is still more ingenious.

Hegel's *Philosophy of Religion* has in the last few years been the subject of bitter disputes. The schisms of the young Hegelians—the doctrines of Strauss, Feuerbach, Bruno Bauer, and others—being all deduced, or pretended to be deduced, from Hegel's system,

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* *La Science Nouvelle*, livre i. ch. ii. § 97.

† *Philosophie der Geschichte*, p. 128.

much angry discussion has taken place as to the real significance of that system. When doctors thus disagree we shall not presume to decide. We will leave the matter to theologians; and for the present only notice Hegel's fundamental ideas.

It is often a matter of wonder to see how Hegel's Method is applied to all subjects, and how his theory of life can be brought to explain every product of life. This is doubtless a great logical merit; and it inspires disciples with boundless confidence. Few, however, we suspect, have approached the subject of Religion without some misgivings as to the applicability of the Method to explain it. Probably the triumph is great when the applicability is shown to be as perfect here as elsewhere. Of this our readers shall judge.

Hegel of course accepts the Trinity; his whole system is Trinitarian. God the Father is the eternal *Idee an und für sich:* that is to say, the Idee as an *unconditioned* Abstraction. God the Son, *engendered* by the Father, is the *Idee* as *Andersseyn:* that is to say, as a *conditioned* Reality. The *separation* has taken place which, by means of a *negation,* gives the Abstraction real existence. God the Holy Ghost is the Identity of the two; the *negation of the negation* and perfect totality of existence. He is the Consciousness of himself as Spirit: this is the condition of his existence.

God the Father was before the World, and created it. That is to say, he existed *an sich,* as the pure *Idee,* before he assumed any reality. He created the World, because it is the essence of his being to create (*es gehört zu seinem Seyn, Wesen, Schöpfer zu seyn*). Did he not create, then would his own existence be incomplete.

The vulgar notion of theologians is that God created the world by an act; but Hegel says that the creation is not an act, but an eternal moment,—not a thing *done,* but a thing perpetually *doing;*—God did not *create* the world, he is eternally *creating* it. Attached also to this vulgar notion, is another less precisely but more commonly entertained; namely, that God, having created the world by an act of his will, lets it develope itself with no interference of his; as Goethe somewhere ridicules it, he 'sits aloft seeing the world go.' This was not the doctrine of St. Paul, whose pregnant words are, '*In Him* we live, and move, and have our being.' We live *in* God, not out of him, not simply by him. And this is what Hegel means when he denies that the creation was a single act. Creation was, and is, and ever will be. Creation is the reality of God: it is God passing into activity, but neither suspended nor exhausted in the act.

This is all that we can here give of his *Philosophy of Religion;* were

we to venture further, we should only get ourselves entangled in the thorny labyrinth of theological problems. Let us pass therefore to his *History of Philosophy*, which, according to him, is the history of the development of the *Idee* as intelligence. This development of thought is nothing more than the various transitions which constitute the *moments* of the absolute Method. All these *moments* are represented in history; so that the *History of Philosophy* is the reproduction of the *Logic* under the forms of intelligence. The succession of these moments gives to each period a particular philosophy; but these various philosophies are, in truth, only parts of the one philosophy. This looks like the Eclecticism of Victor Cousin; and indeed Cousin's system is but an awkward imitation of Hegel: but the Frenchman has either misunderstood, or has modified, the views of his master.

Historically speaking, there have been, according to Hegel, but two philosophies—that of Greece and that of Germany. The Greeks conceived Thought under the form of the *Idee;* the moderns have conceived it under the form of *Spirit*. The Greeks of Alexandria arrived at unity; but their unity was only ideal, it existed objectively in thought. The subjective aspect was wanting: the totality knew itself not as subjective and objective. This is the triumph of modern philosophy.

The *moments* have been briefly these:—1. With Thales and the Eleatics, the *Idee* was conceived as pure Being: the One. 2. With Plato it was conceived as Universal, Essence, Thought. 3. With Aristotle as Conception (*Begriff*). 4. With the Stoics, Epicureans, and Sceptics, as subjective Conception. 5. With the Alexandrians as the totality of Thought. 6. With Descartes as the Self-Consciousness. 7. With Fichte as the Absolute, or *Ego*. 8. With Schelling as the Identity of Subject and Object.

We close here our exposition of Hegel's tenets; an exposition which we have been forced to give more in his own words than we could have wished; but the plan we adopted with respect to Kant and Fichte would not have been so easy (we doubt if it be possible) with respect to Hegel, whose language *must* be learned, for the majority of his distinctions are only verbal. In Kant and Fichte the thoughts were to be grappled with; in Hegel the form is everything.

We have only touched upon essential points. Those desirous of more intimate acquaintance with the system are referred to the admirable edition of his complete works, published by his disciples, in

twelve volumes, octavo. If this voluminousness be somewhat too alarming, we can recommend the abridgment by Franz and Hillert (*Hegel's Philosophie in wörtlichen Auszügen,* Berlin, 1843), where the whole system is given in Hegel's own words, and only his illustrations and minute details are omitted. Michelet's work is useful mainly for its bibliography. He indicates the various directions taken by Hegel's disciples. Chalybäus is popular, but touches only on a few points. Barchou de Penhoen evidently knows Hegel only at second-hand, and is not to be trusted. Dr. Ott's work is ill-written, but is very useful as an introduction to the study of the works themselves, and has been very useful to us in our exposition. No work of Hegel's has been translated into English;* and only his *Æsthetik* into French, and that is more an analysis, we believe, than a translation. The *Philosophy of History* has been translated into Italian.

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* Since this was written, a part of the *Logic* has appeared under this title,— *The Subjective Logic of Hegel, translated by H. Sloman and J. Wallon,* 1855. To the list of works mentioned above should be added Wilm's admirable *Hist. de la Philos. Allemande,* by far the best work on the subject known to me.

TENTH EPOCH.

PSYCHOLOGY SEEKING ITS BASIS IN PHYSIOLOGY.

CHAPTER I.

CABANIS.

WHILE Ontology was re-asserting its claim in Germany, with such results as we have seen, Philosophy in England and France relinquished its lofty claims, and contented itself with the endeavour to construct a Psychology. The writings of Reid, Stewart, Brown, James Mill, and their disciples, valuable in many respects, are all deficient in Method, all without a firm basis. The attempt of Hartley and Darwin to connect Psychology with Physiology, we have seen was premature. It nevertheless pointed out the true direction. If Psychology is to be studied as a Science, it must be studied according to rigorously scientific principles; if, on the contrary, it is to be studied as a branch of Metaphysics, then indeed, the Scotch school, and every other unscientific school, may justly complain of the encroachment of Physiology on their domain.

The history of the rise of psychological Method remains to be written. It began with Hobbes and Locke. They opposed the reigning doctrine of innate ideas. They analyzed Thought as the product of Experience. Hobbes, as was natural in the first vehemence of the swing of reaction against spiritualism, recognizes nothing in the mind but sensations in all their varieties; the mind, he said, is moved by external motion, that is all. Locke, on deeper meditation, saw that there was something more than this; he saw, dimly it is true, yet never overlooking it altogether, that the mind *cooperated*. Not only Sense, but Reflection on the materials given through Sense, furnished, he said, the complex thoughts of man. Thus he proclaimed Experience the source of knowledge. The mind of the child was like a sheet of blank paper on which Experience wrote its various records. In Locke, we see the initial steps of the Physiological Method; and as he was himself an anatomist, there is nothing surprising in his having been led by his

study of man's structure to some conclusions respecting man's mind. He directed that attention to Sense which metaphysicians had been in the habit of directing to ideas and verbal subtleties; and by so doing, took an important step towards the confrontation of speculation with *fact*; and initiated the still more important idea of a *constant relation between organ and function*. He also was led to study the *growth* of mind; and hence his frequent reference to savages and children, which distresses Victor Cousin, who is often as terrified at a fact as at a ghost.

Great as Locke's services were, there was a radical vice in his system which prevented its acceptance. He began the Physiological Method, but he only began it. The Experience-hypothesis would *not* suffice to explain all phenomena (at least not as that hypothesis was then understood); there were forms of thought neither reducible to Sense and Reflection, nor to individual Experience. He drew illustrations from children and savages; but he neither did this systematically, *nor did he extend the Comparative Method to animals*. The prejudices of that age forbade it. The ignorance of that age made it impossible. Comparative Physiology is no older than Goethe, and Comparative Psychology is only now glimmering in the minds of men as a possibility. If men formerly thought they could understand man's body by dissecting it, and did not need the light thrown thereon by the dissection of animals; they were still less likely to seek psychical illustrations in animals, denying, as they did, that animals had minds.

The school of Locke, therefore, although regarding Mind as a property of Matter, consequently directing attention to the human organism, trying to understand the mechanism of sensation, and thus dealing with tangible realities instead of with impalpable and ever-shifting entities, was really incompetent to solve the problems it had set itself, because its Method was imperfect, and its knowledge incomplete. The good effect of its labours was positive; the evil, negative. Following out this positive tendency, we see Hartley and Darwin advancing still nearer to a true Method;—by a bold hypothesis, making the phenomena dependent on vibrations in the nerves; thus leading to a still more precise and *definite* consideration of the organism.

These were, however, tentatives guided by no distinct conception of the necessary relation between organ and function; and the Physiological Method, truly so called, must be first sought in Cabanis.

Pierre Jean Georges Cabanis was born 5th of June, 1757, at Conac, near Brives. He became a physician, and established himself at Auteuil, where, in the house of Madame Helvetius, he cultivated the acquaintance of Turgot, D'Holbach, Franklin, Condillac, Diderot, and D'Alembert. To these let us add Condorcet and Mirabeau, both of whom he attended in their last hours. He died on the 6th of May, 1808. He wrote several works, but one only has survived in the memories of philosophic readers: *Rapports du Physique et du Moral de l'Homme.**

A disciple of Condillac, he nevertheless saw, more distinctly than any man before him, one radical vice of Condillac's system, namely, the limitation of mental phenomena to sensations, and the non-recognition of connate instincts. If sensation were the admitted source of all mental phenomena (and Cabanis rightly extended these phenomena beyond 'ideas'), it became the duty of philosophers to examine the nature of sensation itself. 'No one,' he says, 'had clearly explained in what the act of sensibility consists. Does it always presuppose consciousness and distinct perception? and must we refer to some other property of the living body all those unperceived impressions and movements in which volition has no part?' To put this question was to inaugurate a new study. It became necessary to examine whether all mental phenomena were not reducible to the fundamental laws of sensibility. 'All the while that the Intellect is judging and the Will is desiring or rejecting, many other functions are going on, all more or less necessary to the preservation of life. Have these diverse operations any influence, the one on the other? And is it possible from the consideration of different physical and moral states, which are observed simultaneously, to seize the relations which connect the most striking phenomena, with such precision as to be certain that in the other less obvious cases, if the connection is less easily detected, it is so simply because the indications are too fugitive?'

This conception of a possible Psychology is in itself enough to mark for ever the place of Cabanis in the History of Philosophy. It establishes Psychology as one branch of the great science of Life. It connects the operations of intelligence and volition with the

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* This work originally appeared as a series of *Mémoires* read before the Institute (1798–99). It was published as a separate book in 1802, under the title *Traité du Physique et du Moral de l'Homme;* which title is also borne by the second edition of 1805. Not until 1815, and after the death of Cabanis, was the word *Rapports* substituted for *Traité.*

origin of all vital movements. It makes Life and Mind correlatives. This was a revival of the great truth clearly recognized by Aristotle, from whom it descended to the Schoolmen. 'Impossibile est,' says Aquinas, very emphatically, 'in uno homine esse plures animas per essentiam differentes, sed una tantum est anima intellectiva, quæ vegetativæ et sensitivæ et intellectivæ officiis fungitur.' The division of Life and Mind as two distinct entities was introduced by the Italians of the Renaissance, adopted by Bacon, and once more rejected by Stahl, who returned to the Aristotelian conception. With the fall of Stahl's doctrine, the separation of Mind from Life again became the dictum of the schools, until Cabanis; no one since Cabanis seems to have been thoroughly impressed with the unity of the two till Mr. Herbert Spencer presented it as the basis of psychological induction.* The consequences were immediate: if Mind was to be studied as one aspect of Life, it could only be efficiently studied on that inductive and experimental Method which had reached the certain truths of positive science: 'Les principes fondamentaux seraient également solides; elles se formeraient également par l'étude sévère et par la composition des faits; elles s'étendraient par les mêmes méthodes de raisonnement.' Cabanis warns his readers that they will find nothing of what is called Metaphysics in his book; they will only find physiological researches, *mais dirigées vers l'étude particulière d'un ordre de fonctions.*

In the purely physiological direction, indeed, Cabanis had many predecessors, from Willis in the middle of the seventeenth century, to Prochaska, who preceded Cabanis by one year only.† The nervous system had of course been studied by physiologists, and this study led them to psychological theories; but although we may find elsewhere, especially in Unzer and Prochaska, sounder views of the physiology of the nervous system, we find nowhere so clear and large a conception of the physiological psychology.

'Subject to the action of external bodies,' says Cabanis, 'man finds in the impressions these bodies make on his organs at once

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* Spencer, *Principles of Psychology*, 1855.

† *Lehrsätze aus der Physiologie des Menschen*, 1797. Curiously enough the second and third editions of this work were exactly contemporaneous with the second and third editions of Cabanis, 1802 and 1805 (counting the publication in the *Mémoires de l'Institut* as one edition). It is not to be supposed that Cabanis knew of Prochaska's existence; nor is there more than a general resemblance in their physiological conclusions.

his knowledge and the causes of his continued existence; for to live is to feel; and in that admirable chain of phenomena which constitute his existence, every *want* depends on the development of some *faculty;* every faculty by its very development satisfies some want, and the faculties grow by exercise as the wants extend with the facility of satisfying them. By the continual action of external bodies on the senses of man, results the most remarkable part of his existence. But is it true that the nervous centres only receive and combine the impressions which reach them from these bodies? Is it true that no image or idea is formed in the brain, and that no determination of the sensitive organ takes place, other than by virtue of these same impressions on the *senses* strictly so called?'*

This question cuts away the very root of Condillac's system. Cabanis had no difficulty in showing that Condillac's limitation of our mental phenomena to the action of the special senses, was a contradiction of familiar experience, *e. g.* the manifold influence exercised by the age, sex, temperament, and the visceral sensations generally. A survey of the human organism, compared with that of animals, conducted him to the following conclusions :—

'The faculty of feeling and of spontaneous movement forms the character of animal nature.

'The faculty of feeling consists in the property possessed by the nervous system of being warned by the impressions produced on its different parts, and notably on its extremities. These impressions are internal or external.

'External impressions, when perception is distinct, are called *sensations.*

'Internal impressions are very often vague and confused, and the animal is then only warned by their effects, and does not clearly distinguish their connection with the causes.

'The former result from the application of external objects to the organs of sense; and on them *ideas* depend.

'The latter result from the development of the regular functions, or from the maladies to which each organ is subject; and from these issue those determinations which bear the name of *instincts.*

'Feeling and movement are linked together. Every movement is determined by an impression, and the nerves, as the organs of feeling, animate and direct the motor organs.

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* *Deuxième Mémoire,* § ii.

'In feeling, the nervous organ reacts on itself. In movement it reacts on other parts to which it communicates the contractile faculty, the simple and fecund principle of all animal movement.

'Finally, the vital functions can exercise themselves by the influence of some nervous ramifications, isolated from the system: the instinctive faculties can develope themselves, even when the brain is almost wholly destroyed, and when it seems wholly inactive.

'But for the formation of thoughts it is necessary that the brain should exist, and be in a healthy condition: it is the special organ of thought.'*

He justly repudiates any attempt to explain *sensibility*, which must be accepted as a general property of organized beings, in the same way that attraction is accepted as a general property of masses. No general fact admits of explanation. It can only be subordinated to some other fact, and be explained by it, on the supposition that it is *not* general. Accepting sensibility therefore as an ultimate fact in the organic world, he detects its phenomena running through all those called vital and all those called mental.

'It is something,' he says, 'to have established that all ideas and all moral phenomena are the results of impressions received by the different organs; and I think a still wider step is taken when we have shown that these impressions have appreciable differences, and that we can distinguish them by their seat and the character of their products, although they all act and react on each other, on account of the rapid and continual communications with the sensitive organ.'† The object of his treatise is to examine the relations existing between the moral and physical conditions, how the sensations are modified by modifications in the organs, how ideas, instincts, passions are developed and modified by the influences of age, sex, temperament, maladies, etc. It is not therefore a treatise on Psychology, but contributions towards a science of Psychology, and as such may still be read with advantage, although the science of the present day rejects many of its physiological details. He foresaw that this would be so. 'Le lecteur s'apercevra bientôt que nous entrons ici dans une carrière toute nouvelle. Je n'ai pas la prétention de l'avoir parcouru jusqu'au bout; mais des hommes plus habiles et plus heureux achèveront ce que trop souvent je n'ai pu que tenter.'

As a specimen of inductive Psychology, we must not pass over in

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* *Deuxième Mémoire*, § viii. † *Ibid.*, § v.

silence his experimental proof of instinct being developed by certain organic conditions. He takes one of the most marvellous of instincts, that of maternal love, and having analyzed its physiological conditions, he says, 'In my province, and some of the neighbouring provinces, when there is a deficiency of sitting Hens a singular practice is customary. We take a capon, pluck off the feathers from the abdomen, rub it with nettles and vinegar, and in this state of local irritation place the capon on the eggs. At first he remains there to soothe the pain; soon there is established within him a series of unaccustomed but agreeable impressions, which attaches him to these eggs during the whole period of incubation; and the effect is to produce in him a sort of factitious maternal love, which endures, like that of the hen, as long as the chickens have need of aid and protection. The cock is not thus to be modified; he has an instinct which carries him elsewhere.'

The novelty of the conception which Cabanis put forth, and the interest attached to many of his illustrations, made his work very popular; but its influence was only indirect. The ignorance which almost all psychologists continued to display, not only of Physiology, but of the necessity of a physiological Method, together with the alarm excited by the accusation of 'materialism,' aided as it was by the reaction, mainly political, but soon extending itself to philosophical questions, which condemned the labours of the eighteenth century, left Cabanis with few adherents and no continuers. In elaborate works the brain was still designated as the 'organ of the Mind,' but the Mind was passionately declared *not* to be the function of the brain; the profounder views of Cabanis, which regarded Mind as one aspect of Life, were replaced by the old metaphysical conceptions of *le Moi*,—the Ego,—the immaterial Entity *playing upon* the brain as a musician plays upon an instrument.* Instinct was no longer regarded as determined by the organism, changing with its changes, rendered abortive by mutilations, and rendered active by stimulation; but as a 'mysterious principle implanted' in the organism: a 'something' which, although essentially mysterious and unknowable, appeared to be perfectly well known to the metaphysicians.

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* One living writer, of authority, has gravely declared that mental fatigue is the consciousness which the *mind* has of the *brain's* weariness! In our confessed inability to understand what matter *is*, why will men persist in dogmatizing on what it *is not?* We know neither matter nor spirit, we only know phenomena.

While the reaction was strong against Cabanis and against the whole eighteenth-century Philosophy, there arose another doctrine, which, taking Physiology as its avowed basis, succeeded, in spite of vehement opposition, in establishing itself permanently among the intellectual tendencies of the age; and that doctrine may now be said to be the only psychological one which counts any considerable mass of adherents. I allude to Phrenology.

CHAPTER II.

PHRENOLOGY.

§ I. Life of Gall.

FRANCIS JOSEPH GALL was born at Tiefenbrunn, in Suabia, on the 9th of March, 1757. In the preface to his great work, *Anatomie et Physiologie du Système Nerveux*, 1810, he narrates how as a boy he was struck with the differences of character and talents displayed by members of the same family, and how he observed certain external peculiarities of the head to correspond with these differences. Finding no clue given in the works of metaphysicians, he resumed his observations of nature. The physician of a lunatic asylum at Vienna allowed him frequent occasions of noticing the coincidence of peculiar monomaniacs with peculiar configurations of the skull. The prisons and courts of justice furnished him with abundant material. Whenever he heard of a man remarkable either for good or evil, he made his head a study. He extended his observation to animals; and finally sought confirmation in anatomy. The exterior of the skull he found, as a general rule, to correspond with the form of the brain.

After twenty years of observation, dissection, theorizing, and arguing, he delivered his first course of lectures in Vienna. This was in 1796. The novelty of his views excited a great sensation; one party fanatically opposing them, another almost as fanatically espousing them. Ridicule was not sparing. The new system lent itself to ridicule, and angry opponents were anxious, as opponents usually are, to show that what made them angry was utterly farcical. In 1800 Gall gained his best disciple, Spurzheim. Hitherto Gall had been aided by a young anatomist, named Niklas, to whom he taught the new method of dissecting the brain;* now Spurzheim's mastery of anatomical manipulation, combined with his power of generalization and of popular exposition, came as welcome

* Gall pays his tribute to Niklas in the first edition of the *Anat. et Phys. du Système Nerveux*, i. preface xv. In the second edition this tribute is omitted; not very creditably.

aids in the gigantic task of establishing the new doctrine on a scientific basis.

In 1802 M. Charles Villers, the translator of Kant, published his *Lettre à Georges Cuvier sur une Nouvelle Théorie du Cerveau par le Docteur Gall.* I have not been able to procure this Letter, but it is in many points interesting to the historian of Phrenology, because it not only expounds the doctrine as it was *then* conceived, but describes the localization of the organs then fixed on by Gall. A plate represents the skull, marked by Gall himself, with the four-and-twenty organs, which at that period comprised the 'original faculties' of the mind. Among these twenty-four, there are four subsequently discarded altogether: Vital Force—Susceptibility—Penetration (independent of that which characterizes the metaphysical faculty)—and Generosity (independent of benevolence). Not only are these four astonishing organs marked by Gall as representing original faculties, but the twenty organs which were afterwards retained by him are *differently* localized; so that, according to M. Lélut, from whom I borrow these details, 'of those twenty organs there is scarcely one which occupies the place Gall finally assigned to it.'*

Phrenologists should give prominence to this fact. They are bound not to pass it over. In every way it is important in the history of the doctrine. It may perhaps be satisfactorily explained; but until it be so explained, it must tell against them; and for the very reason which they incessantly advance as their claim to consideration, namely, that the several organs were established by *observation,* not by any theory.† For, if the doctrine had been established by a mingling of hypothesis and observation, nothing would be more likely than that the first sketch of it would be immature in conception and uncertain in details; whereas, if the doctrine grew up slowly from a gradual accumulation of rigorously verified facts, these facts would remain constant through all the tentative changes of doctrine. Gall had been twenty years collecting facts of correspondence between external configuration and peculiarities of character. He had controlled these observations by repeated

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* Lélut: *Rejet de l'Organologie Phrénologique*, 1843, p. 29.

† 'On voit par la marche de ces recherches que le premier pas fut fait par la découverte de quelques organes; que ce n'est que graduellement que nous avons fait parler les faits pour en déduire les principes généraux, et que c'est subséquemment et à la fin que nous avons appris à connaître la structure du cerveau.'—*Anat. et Phys.* i. preface xviii.

verifications. Prisons, lunatic asylums, busts, portraits, remarkable men, even animals, had furnished him with facts. Unless these facts really deserve all the credit which is demanded for them, Phrenology has the ground cut from under it; and if we are to give them our confidence, upon what ground can we relinquish it in favour of subsequent facts, which deny all that has been said before? If Gall could be deceived after twenty years of observation of facts which, according to his statement, are very easily observed, because very obvious in their characters, why may he not have been equally deceived in subsequent observations? If one collection of facts forced him to assign the organ of poetry to a particular spot (on the skull marked by him for M. Villers), how came another collection of facts to displace poetry, and substitute benevolence on that spot? Are the manifestations of poetry and benevolence so closely allied as to mislead the observer?

Probably Spurzheim's assistance came at the right moment to rectify many of the hazardous psychological statements, and to marshal the facts in better order. Together they made a tour through Germany and Switzerland, diffusing the knowledge of their doctrine, and everywhere collecting fresh facts. On the 30th October, 1806, they entered Paris. In 1808 they presented to the Institute their Mémoire on the *Anatomy and Physiology of the Nervous System in general, and of the Brain in particular;* and in 1810 appeared the first volume of their great work, under the same title, which work was remodelled in 1823, and published in six volumes, octavo, under the title of *Fonctions du Cerveau.*

In 1813 Gall and Spurzheim quarrelled and separated. Spurzheim came to England, Gall remained in Paris, where he died on the 22d of August, 1828. At the post-mortem examination, his skull was found to be of at least twice the usual thickness,—a fact which has been the source of abundant witticisms, for the most part feeble. A small tumour was also found in his cerebellum: 'a fact of some interest, from that being the portion of the brain in which he had placed the organ of amativeness, a propensity which had always been very strongly marked in him.'* I know not in what sense the writer just quoted thinks the fact so remarkable. Tumours in other organs are not usually the indications of increased activity; nor are we accustomed to find great poets with tumours in the organ of 'imagination;' great artists with tumours in the

* *The English Cyclopædia*, vol. iii., *Art.* Gall.

perceptive region; great philanthropists with tumours on the frontal arch; great rebels with tumours behind their ears.*

§ II. Gall's Historical Position.

The day for ridiculing Gall has gone by. Every impartial competent thinker, whether accepting or rejecting Phrenology, is aware of the immense services Gall has rendered to Physiology and Psychology, both by his valuable discoveries, and by his bold, if questionable, hypotheses. He revolutionized Physiology by his method of dissecting the brain, and by his bold assignment of definite functions to definite organs. To verify or refute his hypotheses, vast researches were undertaken; the nervous system of animals was explored with new and passionate zeal; and now there is no physiologist who openly denies that mental phenomena are directly connected with nervous structure; while even Metaphysicians are beginning to understand the mechanism of the Senses, and the general laws of nervous action. The time has arrived in which it seems almost as absurd to theorize on mental phenomena in defiance of physiological laws, as it would be to adopt Stahl's advice, and consider anatomical and chemical researches futile in the study of Medicine. We owe this mainly to the influence of Gall. He first brought into requisite prominence the principle of the necessary relation between organ and function. Others had proclaimed the principle incidentally; he made it paramount by constant illustration, by showing it in detail, by teaching that every variation in the organ must necessarily bring about a corresponding variation in the function. He did not say mind was the *product* of organization: 'Nous ne confondons pas les conditions avec les causes efficientes;' all he asserted was the correspondence between the state of the organ and its manifestations.† This was at once to call the attention of Europe to the marvellous apparatus of organs, which had previously

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* To anticipate the reply that the existence of disease in the organ would provoke unusual activity of the organ, it is only necessary to state that Gall's 'propensity' is not said to have been called into unusual activity shortly before his death, but to have always been very active. Had there been a causal connection between the disease and the activity, increase of the activity would have followed the rapid progress of the disease.

† So also Spurzheim says: 'Both Dr. Gall and I have always declared that we merely observe the affective and intellectual manifestations, and the organic conditions under which they take place; and that in using the word organs we only mean the organic parts by means of which the faculties of the mind become apparent, but not that these constitute the mind.'—*Phrenology*, p. 16.

been so little studied, except from a purely anatomical point of view, that no one, until Sömmerring (who was Gall's contemporary), had observed the relation between size of the brain and intellectual power, as a tolerably constant fact in the animal kingdom. This one detail is sufficient to make every reader suspect the chaotic condition of physiological Psychology when Gall appeared.

Nor has Gall's influence been less remarkable in the purely psychological direction. People are little aware how that influence is diffused, even through the writings of the opponents of Phrenology, and has percolated down to the most ordinary intelligences. 'Ni les vains efforts d'un despotisme énergique,' says Auguste Comte, 'secondés par la honteuse condescendance de quelques savans fort accrédités, ni les sarcasmes éphémères de l'esprit littéraire et métaphysique, ni même la frivole irrationalité de la plupart des essais tentés par les imitateurs de Gall, n'ont pu empêcher pendant les trente dernières années l'accroissement rapide et continu, dans toutes les parties du monde savant, du nouveau système d'études de l'homme intellectual et moral. A quels autres signes voudrait-on reconnaître le succès progressif d'une heureuse révolution philosophique?'*

Gall may be said to have definitively settled the dispute between the partisans of innate ideas and the partisans of Sensationalism, by establishing the connate tendencies, both affective and intellectual, which belong to the organic structure of man. Two psychological facts, familiar from all time to the ordinary understanding, but shrouded from all time in the perplexities of philosophy, were by Gall made the basis of a doctrine. The first of these facts is, that all the fundamental tendencies are connate, and can no more be created by precept and education than they can be abolished by denunciation and punishment. The second fact is, that man's various faculties are essentially distinct and independent, although intimately connected with each other. What followed? That the Mind consists of a plurality of functions, consequently must have a plurality of organs, became the necessary corollary of this second proposition, as soon as the relation between organ and function was steadily conceived.

These two propositions have entered into the body of all European doctrines, although the corollary from the second is still vehemently disputed by many. No man of any intellectual eminence would now repeat Johnson's celebrated assertion of the poetic faculty being

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* *Cours de Philos. Positive*, iii. 766.

simply intellectual activity in a special direction, whereby Newton might have written *Othello*, and Shakspeare the *Principia*, had either of these great men set themselves the task. 'Sir, a man can walk as far east as he can walk west,' was thought a conclusive illustration; which indeed it was, when the 'unity' of the faculties found no contradiction; but which no one would now accept as more than a fallacious analogy.

Another conception systematized by Gall has also passed into general acceptance, namely, the pre-eminence of the affective faculties over the intellectual; and the subdivision of the affective faculties into propensities and sentiments, and of the intellectual faculties into perceptives and reflectives; thus marking the progress in development from the individual to the social, from the sensuous to the intellectual, which constitutes the great progress of civilization in the triumph of sociality over animality.

§ III. Cranioscopy.

Phrenology has two distinct aspects. It is a doctrine of Psychology, and it is an Art of reading character. The scientific doctrine is based on the physiology of the nervous system, to which is added psychological analysis and classification. The Art is based on empirical observation of coincidences between certain configurations of the skull and certain mental phenomena. This latter is truly Cranioscopy, and is no more entitled to the name of a science, than are Physiognomy or Cheironomy; a point which Gall's successors have, with scarcely an exception, entirely overlooked. When therefore the phrenologists with much emphasis declare their system to be a system of 'facts' and 'observations,' which claim our confidence because they are facts and not 'mere theories,' it is absolutely necessary that we should accurately discriminate in what sense these said facts are to be understood; because according to that sense will be the kind of confidence they will claim. If, for instance, they are presented purely as empirical facts—the observed coincidences between certain cranial appearances and corresponding mental manifestations—we may thankfully accept them as valuable materials. Abundance of such material does exist; no one acquainted, even superficially, with phrenological writings will deny it. But without desiring to lessen the value of these facts by rigorous criticism of the evidence on which they rest, we may, nay more, we must, if our inquiry be regulated by scientific precision, treat them as we treat

all other empirical facts, namely, hold them as mere sign-posts, until they be proved *universal*, and until they be bound together by some ascertained law. Now it will scarcely be denied that the observed correspondences between special cranial configuration and mental peculiarities, do, in many instances, fail. Large heads are sometimes observed in connection with very mediocre abilities; small heads, on the contrary, with very splendid abilities; particular 'organs' do not always justify their prominence by the presence of the particular 'faculties' which they are said to indicate. I wish rather to understate than overstate the difficulty, and I will not seek to gain any advantage by multiplying exceptions; it is enough for the present argument if any exceptions have been observed; because any exception to an empirical generalization is fatal to it *as* an empirical generalization, and can only be set aside when the generalization has ceased to be empirical, and has become scientific. Thus, I am aware that phrenologists explain each exception to their perfect satisfaction. But, in explaining it, they quit the sphere of empirical observation to enter that of science; and thus their explanation itself has only the validity which can be given it by theory. To make my meaning more definite, let us suppose that the empirical generalization of large chests being the cause of great muscular power, is under discussion. As an observed fact—an empirical fact—the correspondence of broad chests and muscular strength, is a valuable addition to our empirical knowledge. Taken as an indication, no one disputes the fact; but taken as a cause, and connected with a physiological theory, it bears quite a different value. The physiologist may say that the fact proves breadth of chest to admit of more perfect oxygenation of the blood, and thus causes greater muscular power. Against such a theory we bring the fact that no absolute and constant relation between broad chests and muscular power exists; if we find large chests accompanying strength, we also find small chests in certain lithe, wiry frames accompanying even greater strength; the empirical generalization is thus destroyed, the explanation is shown to be imperfect, and the ratio of muscular power is shown to depend on some other condition besides the oxygenation of the blood.

When phrenologists explain away the exceptions to their empirical facts, they are on the field of pure science, and their explanations can only have value in proportion to the validity of the scientific principles invoked; and thus the Art of Cranioscopy is perpetually forced to recur to that very Physiology which the suc-

cessors of Gall have so unwisely neglected, and of which (because it refuses its aid?) they often speak so contemptuously. The fact of a large head with a small mental capacity, or of a small head with a great mental capacity, is explained by them as resulting from the difference in the 'temperaments' of the two. But have they discriminated the conditions thus vaguely indicated by the word temperament? Have they estimated the *proportions* in which the temperaments are mingled? Have they discovered a means of valuation by which the exact influence of each temperament can be estimated? They have not even made the attempt.

And yet that such a valuation is indispensable to the scientific precision of their results, must be evident to every one. What, strictly speaking, is this 'temperament,' which acts as a disturbing force in the calculation? I believe that science will one day show that it is the result of that law of *indeterminate* composition which distinguishes living tissue from all other substances. Inorganic bodies combine according to the law of determinate composition: the proportions of the constituent elements are fixed, definite, invariable. In water we invariably find 88·9 of oxygen, and 11·1 of hydrogen, in every 100 parts; never more, never less; let the water be dew, rain, snow, or artificially produced in the laboratory, its composition is always determinate, even to the fraction. In any piece of flint every 100 parts will be composed of 48·2 of silicon and 51·8 of oxygen; never more, never less. But this is not the case with organic substances (those at least which we ventured to distinguish as *teleorganic* substances),* which are indeterminate in composition. Elementary analyses do not yield constant results, as do the analyses of inorganic substances. Nerve-tissue, for example, contains both phosphorus and water, as constituent elements; but the quantity of these elements *varies* within certain limits; some nerve-tissues have more phosphorus; some more water; and according to these variations in the composition will be the variations in the nervous force evolved. This is the reason why brains differ so enormously even when their volumes are equal. The brain differs at different ages, and in different individuals.

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* Matter is divided into Inorganic and Organic; in 1853 I proposed a modification of this division into—1. Anorganic; 2. Merorganic; and 3. Teleorganic: the first including those usually styled inorganic; the second including those substances in an intermediate state, either wanting some addition to become living, or having lost some elements, and passed from the vital state into that of product; the third including only the truly vital substances.

Sometimes water constitutes three-fourths of the whole weight, sometimes four-fifths, and sometimes even seven-eighths. The phosphorus varies from 0·80 to 1·65, and 1·80; the cerebral fat varies from 3·45 to 5·30, and even 6·10. These facts will help to explain many of the striking exceptions to phrenological observations (such, for example, as the manifest superiority of some small brains over some large brains), and are, indeed, included within the comprehensive formula constantly advanced by phrenologists that 'size is a measure of power, other things being equal.' In this formula there is a truth, and an equivoque. The truth may be passed over by us, as claiming instantaneous assent. The equivoque must arrest us. Phrenologists forget that here 'the other things' never *are* equal; and consequently their dictum 'size is a measure of power,' is without application. There never is equality in the things compared, because two brains exactly similar in size, and external configuration, will nevertheless differ in elementary composition. The difference may be slight, but however slight, it materially affects the result. The difference of elementary composition brings with it a difference in *development;* and by development, I do not mean growth, but *differentiation.** Parallel with these differences, not appreciable by any means in the phrenologist's power, there are psychological differences, resulting from the effect of education. So that to say 'size is the measure of power,' is as vague as to say 'age is the measure of wisdom;' because, although it is true that size is an index of power, and, other things being equal, the greater the brain the greater the mental power, it is equally true, that age and experience in minds of equal capacity will produce proportionate wisdom: unfortunately we cannot get minds of equal capacity placed under the same conditions: and thus it happens that we find some men with large brains inferior to others with much smaller brains, and men of patriarchal length of years more unwise than their nephews.

And, in a less degree, this is true of size, taken as the measure of power, between one organ and another in the same brain. Failing utterly when two different brains are compared, the indication of size will be no more than *approximative* when two parts of the same brain are compared; although in this case the other things are necessarily more nearly equal: it is the same nerve-tissue, the

* I have explained, at some length, the relation of growth and development in an article on *Dwarfs and Giants*, in *Fraser's Magazine* for August and September, 1856.

same temperament we are dealing with. In a given brain, therefore, we may reasonably expect to find that any one organ which is larger in size than another, will be more powerful in function. But although this, as an empirical generalization, is a valuable indication, it is by no means *certain*, because there may be, and indeed usually is, a difficulty thrown in the way by the inappreciable yet potent differences of *development* which have taken place. Differentiations occur in two directions, in elementary composition and in morphological development. One brain may have more phosphorus than another; and in the same brain one organ may be more vesicular or more fibrous than another. Thus it by no means follows that a man with reflective organs large in size, shall have so exercised these organs as to have brought their development into proportional advance; while on the other hand his smaller imaginative organs may have been so developed by culture and exercise, as to have placed them on a par in efficiency with the reflectives. Daily experience assures us that such is the case; and the philosophic phrenologist might point to it as one explanation of the many exceptions which Cranioscopy must necessarily encounter in its attempt to read character according to external indications.

This is not the place for an examination of Phrenology as an Art, or as a Science. I content myself therefore with the foregoing indication of what I believe to be the true position of Cranioscopy, and some of the difficulties which beset it. That the collection of observed correspondences between certain configurations of the skull and certain mental characteristics, is a worthy task, and one which must materially aid the science of Psychology, I do not think would be denied by any philosopher, if it were undertaken with that subsidiary aim; but when phrenologists obtrude their 'system' on the notice of philosophers, declaring it to be a completed science of Psychology, and a true method of reading character, they must not be surprised if contradiction meet them on all sides, and if this contradiction often speak the language of contempt; since daily experience cannot sanction the present pretensions of the Art, because the Art is found to be constantly at fault; nor can psychologists recognize the pretensions of the Science.

§ IV. Phrenology as a Science.

To defend their Art, phrenologists are compelled to recur to their Doctrine, founded on the physiology of the nervous system, and on a psychological classification of the faculties. Indeed, while on the

one hand we find every phrenologist since Gall, Spurzheim, and Vimont, occupied entirely with Cranioscopy, and many even speaking with disdain of anatomists and physiologists; on the other hand we find them anxious to bring forward physiological and pathological evidence, whenever that evidence favours their views; and we hear them confidently assert that Phrenology is the only true Physiology of the nervous system. This latter assertion I am quite willing to echo, if the terms be somewhat modified, and the phrase run thus:—'Phrenology aspires to be the true Physiology of the nervous system; when that Physiology is complete, Phrenology will be complete.' But for the present we find Physiology confessing its incompleteness—confessing itself in its infancy; whereas Phrenology claims to be complete, equipped, full-statured! Rightly considered, that very claim is a condemnation of Phrenology, as at present understood. The pretension of being a perfect or nearly perfect system, surely implies a profound ignorance of the subject, an entire misconception of the complexity of the problem it pretends to have solved? At a time when Science is unable to solve the problem of three gravitating bodies, phrenologists pretend to find no difficulty in calculating the result of forces so complex as those which constitute character; at a time when the nervous system is confessed, by all who have studied it, to be extremely ill-understood, the functions of that system are supposed to be established; at a time when Physiology is so rapidly advancing that every decade renders most books antiquated, a Psychology professedly founded on that advancing science remains immovable!

Gall was on the right path when he entitled his first great work *Anatomy and Physiology of the Nervous System.** His successors have quitted that path. In spite of his emphatic declarations, when he was engaged in his exposition of the anatomy and physiology of the nervous system,† declarations of the necessity there was always to make the study of organ and function go hand in hand, so that he would only have his labours regarded 'as the basis of an essay towards a more perfect work;' in spite, we say, of every philosophical consideration, his successors have neglected Physiology for Cranioscopy; not one of them has made or attempted to make any dis-

* 'Quiconque,' he says, 'est convaincu que la structure des parties du cerveau a un rapport nécessaire et immédiat avec leurs fonctions, trouvera qu'il est naturel de réunir ces deux objets l'un à l'autre, en les considérant et en les traitant comme un seul et même corps de doctrine.'—*An. et Phys.*, pref. xxv.

† Compare his *Anat. et Phys. du Syst. Nerveux*, i. 95 and 271.

covery or extension of discovery in the direction Gall so successfully opened; and the result of this neglect has been twofold,—first, that since Gall and Spurzheim, Phrenology has not taken a single step; second, that all the eminent physiologists of Europe who have devoted themselves to the study of the nervous system unanimously reject a theory which does not keep pace with the advance of science. It is very easy for phrenologists to disregard the unanimous opposition of physiologists, and to place this opposition to the account of prejudice, or the 'not having sufficiently studied Phrenology;' but an impartial on-looker sees clearly enough that, making every allowance for prejudice, the opposition rests mainly on the discrepancy between the facts stated by phrenologists and the facts which Science has hitherto registered. Had phrenologists kept themselves acquainted with what was gradually being discovered by physiologists, they would have seen that something more than prejudice must be at work when all the eminent neurologists, such as Serres, Flourens, Majendie, Leuret, Longet, Lélut, Lafargue, Bouillaud, Baillarger, Müller, Valentin, and comparative anatomists such as Owen, declare against Phrenology; although every one of these is ready to admit the importance of Gall's method of dissection, ready to incorporate whatever results Gall arrived at, which can be in any way confirmed. I do not blame phrenologists for having rendered no assistance to Physiology by their own labours; but I am forced to point out the historical consequences of their having neglected to follow the path commenced by Gall, and deviated into that of simple Cranioscopy. The neglect of which they complain, is entirely owing to their presenting a rude sketch as a perfect science, and to their keeping behind the science of their day, instead of on a level with it. Impatient of contradiction, they shut their eyes to difficulties; unable to accommodate their principles to the principles of Physiology, they contemptuously dismiss objections as 'merely theoretical,' and fall back upon their 'well-established facts.'

Gall undertook a gigantic task. He produced a revolution, and his name will always live in the history of Science. It is idle to attempt to undervalue his work by citing his predecessors. Others before him had thought of localizing the different faculties in different parts of the brain. He and Spurzheim have mentioned such predecessors.* These, however, are very vague unfertile concep-

* *Fonctions du Cerveau*, ii. 350 *sq.* Compare also Lélut: *Rejet de l'Organologie*, p. 21 *sq.*, and Prochaska, p. 374 *sq.*

tions; they in no way lesson Gall's originality. A nearer approach is to be read in Prochaska, whom Gall often mentions, although he does not, I think, mention this particular anticipation. It is the third section of chapter five, and is entitled, 'Do each of the divisions of the intellect occupy a separate portion of the Brain?' and it concludes thus: 'It is by no means improbable that each division of the intellect has its allotted organ in the brain, so that there is one for the perceptions, another for the understanding, probably others also for the will and imagination and memory, which act wonderfully in concert and mutually excite each other to action. The organ of imagination, however, amongst the rest, will be far apart from the organ of perceptions.'* How far this general supposition of a 'probability' is from Gall's specific attempt to localize the organs, need not be pointed out. The attempt was far from being fully successful; but, as a tentative, it was truly philosophical, and produced a revolution.

Having once conceived the brain to be an apparatus of organs, not a single organ, the problem was to analyze this apparatus into its constituent organs, and to assign to each its special function. In this difficult problem Gall, by the necessities of his position as a system-founder, was forced to proceed on a false method, namely, that of determining the separate organs according to a purely physiological and superficial analysis, instead of subordinating this analysis to anatomical verification. It is this arbitrary and unscientific proceeding which has made all anatomists reject the system. What would he have said to a physiologist who, knowing that the liver formed bile and sugar, should have assigned the function of bile-formation to one lobe, and the function of sugar-formation to another lobe, no structural differences having been observed? or who should assign to the different lobules of the kidney functions as different as are assigned to the different convolutions of the brain? It is perfectly true that from inspection of an organ no idea of its function can be obtained; and this truth has blinded phrenologists who are not physiologists to the necessity of nevertheless always making anatomy the basis of every physiological analysis. No inspection of the alimentary canal could disclose to us that its func-

* Prochaska, p. 447. There is a remarkable passage, too long for quotation here, in Willis's *Cerebri Anatome*, c. x. p. 125, on the convolutions as indicating intellectual superiority. I give only the opening: 'Plicæ sunt convolutiones cerebri longè plures ac majores in homine sunt quàm in quovis alio animali, nempè propter varios et multiplices facultatum superiorum actus.'

tion was that of digestion. Nevertheless the function of digestion, except in the crude conception of ordinary men, is only intelligible after a rigorous analysis of the several processes, buccal, stomachal, and intestinal; for the intelligence of each of which, we must assign to each gland its specific secretion, and to each secretion its specific action: a physiologist who should attempt the explanation of digestion on any other mode would justly be slighted by every good biologist in Europe. If Phrenology is the Physiology of the nervous system, it must give up Gall's approximative method for a method more rigorously scientific; and, as Auguste Comte justly remarks, phrenologists, before they can take rank among men of science, must 'reprendre, par une série directe de travaux anatomiques, l'analyse fondamentale de l'appareil cérébral, en faisant provisoirement abstraction de toute idée de fonctions.'*

One of the fundamental questions which must be answered by this anatomical analysis, is that which no phrenologist condescends to ask, namely, Are the convolutions the seat of intelligence? in other words, Is the grey vesicular matter which forms the surface of the brain, the sole and specific seat of those changes on which all mental phenomena depend? This is a question which Cranioscopy may ignore, since the facts on which Cranioscopy is founded are little if at all affected by it. To Phrenology the question is initial, all-important; because if the 'Physiology of the nervous system' should turn out defective in its basis, the whole scaffolding will have to be erected anew. I put the question in two forms, because although it is commonly said that the convolutions of the brain form the organs, yet as many animals are altogether without convolutions, the vesicular surface, whether convoluted or not, must be understood as the seat of mental changes: the convolutions being only a mode of increasing the surface.

As the space at my disposal is inadequate to any exhaustive discussion of this important question, the reader will be satisfied with a brief indication of the doubt which Physiology forces me to express respecting the convolutions as the specific seat of mental manifestations. I cannot reconcile the current opinion on that subject with anatomical and zoological facts. I believe that the vesicular matter which constitutes the convolutions, is only one factor in the sum; it would however lead me too far to enter on the discussion, which might be objected to as at present only hypothetical.

* *Cours de Philosophie Positive*, iii. 821. Comte is much more favourable to Gall than I am, yet see his remarks on the multiplication of the faculties, p. 823 *sq.*

Quitting all hypothetical considerations for the less questionable evidence of facts, I find M. Baillarger*—who invented a new method of measuring the surfaces of brains, by dissecting out all the white substance from their interior, and then unfolding the exterior, and taking a cast of it—declaring from his measurements that it is far from true that in general the intelligence of different animals is in direct proportion to their respective extents of cerebral surface. If their absolute extents of surface be taken, the rule is manifestly untrue in many instances; and it is not more true if the extent of surface in proportion to the volume of the brain be regarded; for the human brain has less superficial extent in proportion to its volume than that of many inferior mammalia: its volume is $2\frac{1}{2}$ times as great in proportion to its surface; as it is in the rabbit, for example.

Nor is this all. The researches of M. Camille Dareste† establish beyond dispute that the number and depth of the convolutions bear *no* direct relation to the development of intelligence; whereas they do bear a direct relation to the *size* of the animal: so that, given the size of the animal in any genus, he can predict the degree of convoluted development; or given the convolutions, he can predict the size: 'toutes les espèces à cerveau lisse ont une petite taille; toutes les espèces à circonvolutions nombreuses et compliquées sont, au contraire, de gran detaille.' Further, I am informed by Professor Owen that the grampus has convolutions deeper and more complicated than those of man. From all which facts it becomes evident that the phrenological basis is so far from being in accordance with the present state of our knowledge of the nervous system as to require complete revision.

Phrenology has another important point to determine, namely, the relation of the size of the brain to mental power. Is the size of the brain to be taken absolutely, and its functional activity in the purely mental direction to be measured by its absolute bulk? A galvanic battery of fifty plates is five times as powerful as a battery of ten plates; a cord of twenty threads is five times as strong as a cord of four threads, other things equal; and, in like manner, we should expect that a brain of fifty ounces would be twice as powerful as one of twenty-five ounces (the limits are really greater than these). Nevertheless, we find no such absolute and constant rela-

* *Gazette Médicale*, 19 April, 1845. Paget: *Report on the Progress of Anatomy in British and Foreign Med. Rev.* July, 1846.

† *Annales des Sciences Naturelles*, 3ᵉ série, xvii. 30, and 4ᵉ série, i. 73.

tion between size and mental power as would justify the phrenological position; the weight of the human brain being about three pounds; the weight of the whale's brain being five pounds; the weight of the elephant's between eight and ten pounds. If therefore the function of the brain be solely or mainly that of mental manifestation, and if size be the measure of power, the whale and the elephant ought to surpass man, as a Newton surpasses an idiot. If on the contrary the brain, as a nervous centre, has *other* functions besides that of mental manifestation, these discrepancies can be explained, although Phrenology must take these other functions into account.*

It is true that phrenologists have been aware of these discrepancies; and, unable to admit the whale and elephant as superior to man, they have met the objection by saying the size must be estimated relatively, not absolutely. Compared with the weight of his body, the brain of man is certainly heavier than the brains of most animals, including the whale and the elephant; and this fact seems to restore Phrenology to its cheerfulness on the subject; but the fact does *not* hold good of monkeys, the smaller apes, many species of birds, and some rodents. This is the dilemma: either the ratio of mental power depends on the absolute size of the brain, and in this case the elephant will be thrice as intelligent as man; or it depends on relative size of the brain compared with the body, and in this case man will be less intelligent than a monkey or a rat, although more intelligent than the elephant. Moreover, if *relative* size is the basis taken, phrenologists would be bound to compare in each case the weight of the brain with the weight of the body, before they could establish a conclusion; and *this* is obviously impracticable. I have stated the dilemma; but having stated it, I will add that although phrenologists attach importance to questions of weight of the brain, there seems to me a great fallacy involved in such estimates. Intelligence is not to be measured by the balance. Weight is no index of cerebral activity, nor of the *special directions* of the activity.

Enough has been said to show that Phrenology, so far from at present being the only true physiological explanation of the nervous system, is in so chaotic and unstable a position with respect to its basis, as to need thorough revision; and until some phrenologist

* I have sketched the relations of the brain to the body in the paper before referred to, on *Dwarfs and Giants*. See *Fraser's Mag.* Sept. 1856, p. 289.

shall arise who, following up the impulsion given by Gall, can once more place the doctrine on a level with the science of the age, all men of science must be expected to slight the pretensions of Phrenology as a psychological system, whatever it may hereafter become. That a new Gall will some day arise I have little doubt, for I am convinced that Psychology must be established on a physiological basis. Meanwhile, for the purposes of this History, it suffices to have indicated the nature of Gall's innovation, and the course of inquiry he opened. As a psychological classification, the one now adopted in Phrenology can only be regarded in the light of a tentative sketch; superior indeed to those which preceded it, but one which daily experience shows to be insufficient.

To conclude this chapter, we may point to Gall as having formed an epoch in the History of Philosophy by inaugurating a new Method. From the time when Philosophy itself became reduced to a question of Psychology, in order that a basis might, if possible, be laid, the efforts of men were variously directed, and all ended in scepticism and dissatisfaction because a true psychological Method did not guide them. The history of the tentatives towards a true Method has been sketched in various chapters of this volume, and with Gall that Method may be said to have finally settled its fundamental principles.

ELEVENTH EPOCH.

PHILOSOPHY FINALLY RELINQUISHING ITS PLACE IN FAVOUR OF POSITIVE SCIENCE.

CHAPTER I.

ECLECTICISM.

'NOUS ne croyons pas les choses parce qu'elles sont vraies,' says Pascal, 'mais nous les croyons vraies parce que nous les aimons.' This is one ever-present obstacle to the progress of mankind. We do not love Truth because it is true, but because it seems to countenance other opinions which we believe necessary to our well-being. Only a few philosophic minds have strength enough to detach their eyes from consequences, and concentrate all their attention on Truth; and these few can only do so in virtue of their steadfast conviction that Truth can never be really injurious, whatever phantoms apprehensive ignorance may conjure up around it.

The reaction against the Philosophy of the eighteenth century was not a reaction against a doctrine proved to be incompetent, but against a doctrine believed to be the source of frightful immorality. The reaction was vigorous because it was animated by the horror which agitated Europe at the hideous excesses of the French Revolution. Associated in men's minds with the saturnalia of the Terror, the philosophical opinions of Condillac, Diderot, and Cabanis were held responsible for the crimes of the Convention; and what might be true in those opinions was flung aside with what was false, without discrimination, without analysis, in fierce impetuous disgust. Every opinion which had what was called 'a taint of materialism,' or seemed to point in that direction, was denounced as an opinion necessarily leading to the destruction of all Religion, Morality, and Government. Every opinion which seemed to point in the direction of spiritualism was eagerly welcomed, promulgated, and lauded; not because it was demonstrably true, but because it was supposed capable of preserving social order. And indeed when, looking back upon those times, we contemplate the misery and

anarchy which disgraced what was an inevitable movement, and dimmed what was really noble in the movement, we can understand how generous hearts and minds, fluctuating in perplexity, did instinctively revolt not only against the Revolution, but against all the principles which were ever invoked by the revolutionists. Looking at the matter from this distance we can see clearly enough that 'materialism' had really no more to do with the Revolution than Christianity had to do with the hideous scenes in which the Anabaptists were actors; but we can understand how indelible was the association of Revolution and materialism in the minds of that generation.

So profoundly influential has this association been, that a celebrated surgeon of our own day perilled his position by advocating an opinion, now universally accepted, but then generally shuddered at; namely, that the brain is the 'organ' of the mind. He had to retract that opinion, which the pious Hartley and many others had advanced without offence. He had to retract it, not because it was scientifically untenable, but because it was declared to be morally dangerous. It was 'materialism,' and materialism 'led' to the destruction of all morality. Although every man now believes the brain to be veritably the organ of the mind, the word materialism is still used as a bugbear. Instead of being refuted as false, it is by many denounced as dangerous. I believe the philosophy of the eighteenth century to be dangerous because false; the writers to whom I allude, declare it false because they believe it dangerous. I believe it also to be in many respects healthful, because in many respects true; and it would be uncandid in me not to declare that if I oppose the eighteenth century doctrine, I believe the spiritualism which denounces it is even more incomplete as a philosophy, and consequently even more dangerous in its influence.

The history of the reaction in France is very instructive, but it would require more space than can here be given adequately to narrate the story.* Four streams of influence converged into one, all starting from the same source, namely, horror at the Revolutionary excesses. The Catholics, with the great Joseph de Maistre and M. de Bonald at their head, appealed to the religious sentiments; the Royalists, with Chateaubriand and Madame de Staël,

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* The reader may consult on this topic Damiron, *Essai sur l'Histoire de la Philosophie en France au XIXième Siècle;* and Taine, *Les Philosophes Français du XIXième Siècle.*

appealed to the monarchical and literary sentiments; the metaphysicians, with Laromiguière and Maine de Biran, and the moralists with Royer-Collard, one and all attacked the weak points of Sensationalism, and prepared the way for the enthusiastic reception of the Scotch and German philosophies. A glance at almost any of these writers will suffice to convince the student that their main purpose is to defend morality and order, which they believe to be necessarily imperilled by the philosophy they attack. The appeals to the prejudices and sentiments are abiding. Eloquence is made to supply the deficiencies of argument; emotion takes the place of demonstration. The hearer is charmed, roused, dazzled. He learns to associate all the nobler sentiments with spiritualistic doctrines, and all grovelling ideas with materialistic doctrines; till the one school becomes inseparably linked in his mind with emotions of reverence for whatever is lofty, profound, and noble, and the other with emotions of contempt for whatever is shallow and unworthy. The leaders of the reaction were men of splendid talents, and their work was eminently successful. But now that the heats of controversy have cooled, and all these debates have become historical, we who look at them from a distance can find in them no philosophical progress, no new elements added which could assist the evolution of Philosophy and form a broader basis for future monuments. In political and literary History these attempts would claim a conspicuous position; in the History of Philosophy they deserve mention only as having made mankind aware of the limited nature of the eighteenth century philosophy, and its extraordinary *lacunæ*. Their office was critical, and has been fulfilled.

One doctrine, and one alone, emerged from these attempts, and held for some time the position of a school. It made a noise in its day, but even the echoes have now become almost inaudible, for a feebler doctrine scarcely ever obtained acquiescence. We must nevertheless bestow a few sentences on it to make our history complete. Eclecticism is dead, but it produced some good results, if only by the impetus it gave to historical research, and by the confirmation it gave, in its very weakness, to the conclusion that an *à priori* solution of transcendental problems is impossible. For Eclecticism was the last product of philosophical speculation, the gathering together of all that philosophers had achieved, and the evolution from these separate achievements of one final doctrine, which final doctrine is itself rejected.

Victor Cousin and Thomas Jouffroy are the chiefs of this school, one a brilliant rhetorician utterly destitute of originality, the other a sincere thinker, whose merits have been thrown into the shade by his brilliant colleague. As a man of letters, M. Cousin deserves the respect which attends his name, if we except the more than questionable use which he has made of the labours of pupils and assistants without acknowledgment. However, our business is not with Cousin, but with Eclecticism. Royer-Collard introduced the principles of the Scotch school, to combat with them the principles of sensationalism. Reid and Stewart were translated by Jouffroy, explained and developed by Royer-Collard, Jouffroy, and Cousin. The talents of these professors, aided by the tendency towards any reaction, made the Scotch philosophy dominant in France. But Victor Cousin's restless activity led him to the study of Kant:—and the doctrines of the 'Königsberg sage' were preached by him with the same ardour as that which he had formerly devoted to the Scotch. As soon as the Parisians began to know something of Kant, M. Cousin started off to Alexandria for a doctrine: he found one in Proclus. He edited Proclus; lectured on him; borrowed some of his ideas, and would have set him on the throne of Philosophy, had the public been willing. A trip to Germany in 1824 made him acquainted with the modern Proclus—Hegel. On his return to Paris he presented the public with as much of Hegel's doctrines as he could understand. His celebrated Eclecticism is nothing but a misconception of Hegel's *History of Philosophy*, fenced round with several plausible arguments.

All error, M. Cousin repeatedly enforces, is nothing but 'an incomplete view of the truth.' Upon this definition is based the proposition that 'All systems are incomplete views of the reality, set up for complete images of the reality.' The conclusion is obvious: 'All systems containing a mixture of truth and error have only to be brought together, and then the error would be eliminated by the mere juxtaposition of system with system. The truth or portion of the truth which is in one system would be assimilated with the portions of the truth which are in other systems; and thus the work would be easy enough.'

Eclecticism, therefore, means the bringing together of all discovered truths eliminated from their accompanying errors; and out of this body of truths a doctrine is to be elaborated. A great task; but is it practicable? The system is based on the definition of error; by that it must stand or fall.

The definition appears to us altogether untenable. Error is *sometimes* an incomplete view of the truth; but it is not *always*: it is sometimes no view of the truth at all, but a mere divergence from it. When Newton constructed his theory of the laws of attraction, and interposed an ether as the *medium* through which they operated, he had an incomplete view of the truth. But when Descartes developed his theory of vortices, he was quite wide of the truth—he was altogether wrong. The phrase 'incomplete view' is indeed so vague, that men who sport with verbal subtleties may justify the theory of Descartes as an incomplete view of the truth; a *very* incomplete view. At any rate no one will be disposed to assert that by the mere juxtaposition of Newton's doctrine with that of Descartes he could in any way eliminate the error that is in both.

If therefore *all* systems are not incomplete views of the reality, if all systems do not contain certain portions of the truth—how is the eclectic to decide *which* systems are available for his purpose, which philosophies are to be juxtaposed? This leads to the necessity of a *criterium*. M. Jouffroy tells us that it is an easy matter. We have only to collect all the systems which have ever been produced, have them translated and arranged in their legitimate order, and the truths discovered by each will become organized in one doctrine.

Without stopping to ask what *is* the legitimate order, and how we are to know it, the student is naturally anxious to learn by what criterium Eclecticism proposes to judge and separate truth from error in any system. The inquiry is pertinent. It is easy to bid us be careful in separating the wheat from the chaff, that we may garner it up in the storehouses of the world. Suppose the farmer does not *know* the wheat when he sees it, what criterium do you give him whereby he may judge wheat to be wheat, not chaff? None. The philosopher can only distinguish the truth in two ways: either he knows it already, and then he *has* what he is seeking; or else he knows it by its relation to and accordance with those truths which he is already in possession of. That is to say, he has a criterium in his System: those views which range under it, he accepts as extensions of his knowledge; those which range beyond its limits he denies to be true.

Suppose the eclectic places in juxtaposition the two great schools which have always divided the world, viz. that which declares experience to be the source of all knowledge; and that which declares

we have a great deal of our knowledge antecedent to and independent of experience. Both of these systems he pronounces to be composed of truth and error. He assumes this; for a little consideration might tell him that it is utterly impossible both should be correct: experience either is or is not the sole fountain of knowledge. The difference is as decided as that respecting the motion of the earth, or the motion of the sun. Ptolemy and Copernicus: choose between them; any compromise is impossible, unless you wish to side with the Sizar who, when the question was put, 'Does the earth move round the sun, or the sun round the earth? replied, 'Sometimes one and sometimes the other.' He was an eclectic apparently. Let us however for a moment grant that the two schools of Psychology are both partly right and partly wrong; we then ask, What criterium has the eclectic whereby to distinguish error from truth? He has none; the doctors are silent on the point.

That men derive assistance from others, and that those who went before us discovered many truths, all admit. And there can be no doubt that a juxtaposition and comparison of various doctrines would be of service. Eclecticism, therefore, as a *subsidiary* process is valuable; and has always been practised. M. Cousin however converts this subsidiary process into a primary one, and dignifies it with the attributes of a Method. In the one sense it is simply that the inquirer consults the works of his predecessors, and selects from them all that *he* considers true: viz. such portions as confirm, extend, and illustrate his previous opinions; these opinions constituting his criterium. Let the reader reflect on the pertinacity with which men refuse to admit views which to others are self-evident, because those views are or seem to be opposed to religion, or the reigning doctrine, and he will clearly enough see the nature of this criterium. The history of opinion is crowded with instances of it. M. Cousin however does not so understand Eclecticism. He says we should admit all systems as containing some truths; and these truths separate themselves from errors by the mere process of juxtaposition, somewhat in the manner, we presume, of chemical affinities.—A theory that needs, one would think, no further refutation than a simple statement of its principles.

Having dismissed Eclecticism as a Method, we need not waste time in examining M. Cousin's various and constantly shifting opinions. It is enough that he himself has relinquished them. It is enough that France and Europe reject them.

This final doctrine then fares no better than the doctrines which preceded it. Philosophy is still in search of its Method and its basis; and wearied out by so many fruitless efforts, it finally gives up the quest, and allows itself to be absorbed by Science. The dogmatic assertion of this position is to be found in Auguste Comte.

CHAPTER II.

AUGUSTE COMTE.

AS I have devoted a whole volume to the exposition of Comte's philosophy,* it will be unnecessary to enter into a detailed exposition here; and the small space at disposal may be occupied with a general indication of his historical position and the nature of his Method.

In the course of this History one fact has been gradually assuming more and more distinctness, as the various failures to establish any solid basis for Philosophy have been brought before us; namely, that mankind has, from the origin of speculative inquiry, been pursuing a false Method. Gradually, as men became aware of this fact, they withdrew themselves more and more from Philosophy, and devoted their speculative energy to Science. Even those who, reluctant to relinquish the high aims of Philosophy, tried by changes of direction to discover new and more prosperous issues, and hoped in re-investigating the nature of human knowledge to disclose some yet unsuspected path which might lead them to the goal, found Psychology itself forced to range beside the positive sciences, and to adopt the one Method which hitherto had alone been fruitful in results. And while from all directions a convergence towards Science was silently taking place, there arose a powerful thinker who proclaimed the inherent necessity of this convergence, and the necessity under which Philosophy now was of definitively relinquishing its ancient claims in favour of the positive Method, which could lead men to a general doctrine such as might once more establish harmony in their endeavours, and give to Europe an invigorating faith.

In the *Cours de Philosophie Positive*, 6 vols., 1830–42, Auguste Comte did for the nineteenth century what Bacon did for the seventeenth: he resumed in one vast work the various reforming tendencies of preceding ages. Whoever casts his glance at the present

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* *Comte's Philosophy of the Sciences*, 1853 (Bohn's Scientific Library, vol. 20).

intellectual state of Europe, will perceive a great want of *unity*, caused by the absence of any one doctrine, *general* enough to embrace every variety of ideas, and *positive* enough to carry with it irresistible conviction. Look at the state of Religion :—Catholicism and Protestantism make one great division ; but within the sphere of each we see numerous subdivisions ; the variety of sects is daily increasing. Each Religion has remarkable men amongst its members ; but each refuses to admit the doctrines of the others. There is, in fact, no one general doctrine capable of embracing Catholics, Protestants, Mahometans, and their subdivisions. Look also at the state of Philosophy. There is no one system universally accepted ; there are as many philosophies as there are speculative nations, almost as many as there are professors. The dogmas of Germany are held in England and Scotland as the dreams of alchemists ; the Psychology of Scotland is laughed at in Germany, and neglected in England and France. Besides this general dissidence, we see, in France and Germany at least, great opposition between Religion and Philosophy openly pronounced. This opposition is inevitable : it lies in the very nature of Philosophy ; and although, now as heretofore, many professors eagerly argue that the two are perfectly compatible and accordant, the discordance is, and always must be, apparent.

With respect to general doctrines, then, we find the state of Europe to be this : religions opposed to religions ; philosophies opposed to philosophies ; and Religion and Philosophy at war with each other. Such is the anarchy in the higher regions.

In the positive sciences there is less dissidence, but there is the same absence of any general doctrine ; each science is on a firm basis, and rapidly improves ; but a Philosophy of Science is nowhere to be found except in the work of M. Auguste Comte, which comes forward with the express purpose of supplying the deficiency. The *speciality* of most scientific men, and their incapacity of either producing or accepting general ideas, has long been a matter of complaint ; and this has been one great cause of the continuance of Philosophy ; for men of speculative ability saw clearly enough that however exact each science might be in itself, it could only form a part of Philosophy. Moreover the evil of speciality is not confined to neglecting the whole for the sake of the parts ; it affects the very highest condition of Science, namely, its capability of instructing and directing society.

In the early ages of speculation, general views were eagerly sought and easily obtained. As Science became rich and complex in ma-

terials, various divisions took place; and one man cultivated one science, another man another. Even then general views were not absent. But as the tide rolled on, discovery succeeding discovery, and new tracts of inquiry leading to vast wildernesses of undiscovered truth, it became necessary for one man to devote himself only to a small fraction of a science, which he pursued, leaving to others the task of bringing his researches under their general head. Such a minute division of labour was necessary for the successful prosecution of minute and laborious researches; but it ended in making men of science regard *only* the individual parts of science; the construction of general doctrines was left to philosophers. A fatal error; for such doctrines could only be truly constructed out of the materials of Science and upon the Method of Science; whereas the philosophers were ignorant of Science—or only superficially acquainted with it—and despised the Method. The *Natur-Philosophie* of Schelling and Hegel is a sufficiently striking example of the results of such a procedure.

We come then to this conclusion: in the present state of things the speculative domain is composed of two very different portions, —general ideas and positive sciences. The general ideas are powerless because they are not positive; the positive sciences are powerless because they are not general. The new Philosophy which, under the title of Positive, M. Comte proposes to create—and the basis of which he has himself laid—is destined to put an end to this anarchy, by presenting a doctrine which is *positive*, because elaborated from the sciences, and yet possessing all the desired *generality* of metaphysical doctrines, without possessing their vagueness, instability, and inapplicability.

Besides this general aim of the new 'Great Instauration,' we have to notice three initial conceptions which Comte advances, two of which relate to Method, and one to History.

The first is the conception of Philosophy, which, in its widest sense, is identical with Science; consequently one Method must be followed in all investigations, whether the investigations relate to Physics, to Psychology, to Ethics, or to Politics. Every special science, no matter what its subject-matter, is but a branch of the one Positive Philosophy.

The second conception is that of Classification, whereby all the special sciences will assume their proper place in the hierarchy of Science, the simpler being studied first, and thus becoming instruments for the better prosecution of those which succeed. Thus

Mathematics becomes the instrument of Astronomy and Physics; Chemistry becomes the instrument of Biology; and Biology becomes the instrument of Sociology.

The third conception is that of the fundamental law of evolution. This conception sets forth that Humanity has three stages, the Theological, the Metaphysical, and the Positive. Whether we examine the history of nations, of individuals, or of special sciences, we find that speculation always commences with supernatural explanations, advances to metaphysical explanations, and finally reposes in positive explanations. The first is the necessary point of departure taken by human intelligence; the second is merely a stage of transition from the supernatural to the positive; and the third is the fixed and definite condition in which knowledge is alone capable of progressive development.

In the Theological stage, the mind regards all effects as the productions of supernatural agents, whose intervention is the *cause* of all the apparent anomalies and irregularities. Nature is animated by supernatural beings. Every unusual phenomenon is a sign of the pleasure or displeasure of some being adored and propitiated as a God. The lowest condition of this stage is that of the savages, viz. Fetishism. The highest condition is when one being is substituted for many, as the cause of all phenomena.

In the Metaphysical stage, which is only a modification of the former, but which is important as a transitional stage, the supernatural agents give place to abstract forces (personified abstractions) supposed to inhere in the various substances, and capable themselves of engendering phenomena. The highest condition of this stage is when all these forces are brought under one general force named Nature.

In the Positive stage, the mind, convinced of the futility of all inquiry into causes and essences, applies itself to the observation and classification of *laws* which regulate effects: that is to say, the invariable relations of succession and similitude which all things bear to each other. The highest condition of this stage would be, to be able to represent all phenomena as the various particulars of one general view.

Thus, in Astronomy we may trace the gradual evolution from Apollo and his chariot, through the Pythagorean ideas of Numbers, Harmonies, and so many other metaphysical abstractions, to the firm basis on which it is now settled: the law of gravitation. So that it is by geometry and dynamics we hope to wrest their secret

from the spheres; not by the propitiation of a Sun-god. Thus also in Physics, where thunder was the intervention of Jove, and where Metaphysics had introduced Nature's 'horror of a void,' Science seeks the laws of gravitation, electricity, light, etc.

In the work already mentioned I have illustrated this law in many ways. The reader is advised however to seek in Comte's own volumes for a complete verification of the law, and its importance in all historical inquiry.* A few sentences will suffice to indicate the nature of the three stages:—All are agreed, in these days, that real knowledge must be founded on the observation of facts. But no science could have its origin in simple observation; for if, on the one hand, all positive theories must be founded on observation, so, on the other, it is equally necessary to have some sort of theory before we address ourselves to the task of steady observation. If, in contemplating phenomena, we do not connect them with some principle, it would not only be impossible for us to combine our isolated observations, and consequently to draw any benefit from them; but we should also be unable even to retain them, and most frequently the important facts would remain unperceived. We are consequently forced to theorize. A theory is necessary to observation, and a correct theory to correct observation.

This double necessity imposed upon the mind—of observation for the formation of a theory, and of a theory for the practice of observation—would have caused it to move in a circle, if nature had not fortunately provided an outlet in the spontaneous activity of the mind. This activity causes it to begin by assuming a cause, which it seeks out of nature, *i. e.* a supernatural cause. As man is conscious that he acts according as he wills, so he naturally concludes that everything acts in accordance with some superior will. Hence Fetishism, which is nothing but the endowment of inanimate things with life and volition. This is the logical necessity for the supernatural stage: the mind commences with the unknowable; it has first to learn its impotence, to learn the limits of its range, before it can content itself with the knowable.

The metaphysical stage is equally important as the transitive stage. The supernatural and positive stages are so widely opposed

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* This advice can the more easily be followed now that a translated condensation of the *Positive Philosophy* by Harriet Martineau, has placed the work within reach of English readers.

that they require intermediate notions to bridge over the chasm. In substituting an *entity inseparable from phenomena* for a *supernatural agent, through whose will* these phenomena were produced, the mind became habituated to consider only the phenomena themselves. This was a most important condition. The result was, that the ideas of these metaphysical entities gradually faded, and were lost in the mere abstract names of the phenomena.

The positive stage was now possible. The mind having ceased to interpose either supernatural agents or metaphysical entities between the phenomena and their production, attended solely to the phenomena themselves. These it reduced to *laws ;* in other words, it arranged them according to their invariable relations of similitude and succession. The search after essences and causes was renounced. The pretension to absolute knowledge was set aside. The discovery of laws became the great object of mankind.

Remember that although every branch of knowledge must pass through these three stages, in obedience to the law of evolution, nevertheless the progress is not strictly chronological. Some sciences are more rapid in their evolution than others; some individuals pass through these evolutions more quickly than others; so also of nations. The present intellectual anarchy results from that difference; some sciences being in the positive, some in the supernatural, and some in the metaphysical stage: and this is further to be subdivided into individual differences; for in a science which, on the whole, may fairly be admitted as being positive, there will be found some cultivators still in the metaphysical stage. Astronomy is now in so positive a condition, that we need nothing but the laws of dynamics and gravitation to explain all celestial phenomena; and this explanation we know to be correct, as far as anything can be known, because we can predict the return of a comet with the nicest accuracy, or can enable the mariner to discover his latitude and find his way amidst the 'waste of waters.' This is a positive science. But so far is meteorology from such a condition, that prayers for dry or rainy weather are still offered up in churches; whereas if once the *laws* of these phenomena were traced, there would no more be prayers for rain than for the sun to rise at midnight. Remark also, that while in the present day no natural philosopher is unwise enough to busy himself with the attempt to discover the *cause* of attraction, thousands are busy in the attempt to discover the *cause* of life and the *essence* of mind. This difference characterizes positive and metaphysical sciences. The one is content with a general

fact, that 'attraction is directly as the mass and inversely as the square of the distance;' this being sufficient for all scientific purposes, because enabling us to predict with unerring certainty the results of that operation. The metaphysician or metaphysical physiologist, on the contrary, is more occupied with *guessing* at the causes of life, than in observing and classifying vital phenomena with a view to detect their laws of operation. First he guesses it to be what he calls a 'vital principle'—a mysterious entity residing in the frame, and capable of engendering phenomena. He then proceeds to guess at the nature or essence of this principle, and pronounces it 'electricity,' or 'nervous fluid,' or 'chemical affinity.' Thus he heaps hypothesis upon hypothesis, and clouds the subject from his view.

The more closely we examine the present condition of the sciences, the more we shall be struck with the anarchy above indicated. We shall find one science (Physics) in a perfectly positive stage, another (Biology) in the metaphysical stage, a third (Sociology) in the supernatural stage. Nor is this all. The same varieties will be found to co-exist in the same individual mind. The same man who in Physics may be said to have arrived at the positive stage, and recognizes no other object of inquiry than the *laws* of phenomena, will be found still a slave to the metaphysical stage in Biology, and endeavouring to detect the *cause* of life; and so little emancipated from the supernatural stage in Sociology, that if you talk to him of the *possibility* of a science of history, or a social science, he will laugh at you as a 'theorizer.' The present condition of Science, therefore, exhibits three Methods instead of one: hence the anarchy. To remedy the evil all differences must cease: one Method must preside. Auguste Comte was the first to point out the fact, and to suggest the cure; and it will render his name immortal. So long as the supernatural explanation of phenomena was universally accepted, so long was there unity of thought, because one general principle was applied to *all* facts. The same may be said of the metaphysical stage, though in a less degree, because it was never universally accepted; it was in advance of the supernatural, but before it could attain universal recognition, the positive stage had already begun. When the positive Method is universally accepted—and the day we hope is not far distant, at least among the *élite* of humanity—then shall we again have unity of thought, then shall we again have one general doctrine, powerful because general. That the positive Method is the only Method

adapted to human capacity, the only one on which truth can be found, is easily proved: on it alone can *prevision* of phenomena depend. Prevision is the characteristic and the test of knowledge. If we can predict certain results and if they occur as we predicted, then are we assured that our knowledge is correct. If the wind blows according to the will of Boreas, we may, indeed, *propitiate* his favour, but we cannot *calculate* upon it. We can have no certain knowledge whether the wind will blow or not. If, on the other hand, it is subject to laws, like everything else, once discover these laws, and men will predict concerning it as they predict concerning other matters. 'Even the wind and rain,' to use the language of one of our clearest writers, 'which in common speech are the types of uncertainty and change, obey laws as fixed as those of the sun and moon; and already, as regards many parts of the earth, man can foretell them without fear of being deceived. He plans his voyages to suit the coming monsoons, and prepares against the floods of the rainy season.'* If one other argument be needed, we would simply refer to the gradual and progressive improvement which has always taken place in every department of inquiry conducted upon the positive Method—and with a success in exact proportion to its rigorous employment of that Method—contrasted with the *circular* movement of Philosophy, which is just as far from a solution of any one of its problems as it was five thousand years ago; the only truths that it can be said to have acquired are a few psychological truths, and these it owes to the positive Method. So little has the Philosophy of Science been studied, that Comte's admirable classification of the fundamental sciences has not only been regarded as a merely ingenious speculation, but many writers have said that it was not different from other classifications which had been proposed, among which Hegel's has been mentioned. But the resemblance is only superficial. A few sentences must suffice here to indicate the principle on which it is based:—The problem to be solved is the dependence of the sciences upon each other. This dependence can only result from that of the corresponding phenomena. In considering these, it is easy to class them in a small number of natural categories, so disposed that the rational study of each successive category should be founded on the knowledge of the principal laws of the preceding category. The order of their dependence is determined by the degree of *simplicity* or *generality* of the phenomena.

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* Dr. Arnott's *Elements of Physics*, fifth edition, vol. i. p. 13.

It is evident that the most simple phenomena—those which are least mixed up with others—are the most general; for that which is observed in the greatest number of circumstances is the most independent of the various particulars of those circumstances. The principle therefore to be adopted is this: we must commence with the study of the most simple or general phenomena, and proceed successively to the most complex and particular.

A distinction is to be made between the two classes of phenomena which are manifested by *inorganized bodies* and by *organized bodies*. The phenomena of the latter are obviously more *complex* than those of the former: they greatly depend upon inorganized bodies, while these in no way depend upon organized bodies. Organized bodies manifest *all* the phenomena of the inorganized, whether chemical or mechanical; but they *also* manifest the phenomena named *vital*, which are never manifested by inorganized bodies.

In the study of *inorganic Physics* we commence by separating the general phenomena of the universe from the less general terrestrial phenomena. Thus we have, first, *celestial Physics*, or Astronomy, whether geometrical or mechanical; secondly, *terrestrial Physics*. The phenomena of Astronomy being the most general, the most simple, and the most abstract of all, we must begin our study with them. Their laws influence all other terrestrial phenomena, of which they are essentially independent. In all terrestrial Physics universal gravitation is a condition; and so the simple movement of a body, if we would consider *all* the determining conditions, is a subject of greater *complexity* than any astronomical question.

Terrestrial Physics is also divided into two classes: Physics and Chemistry. Chemistry, rightly conceived, presupposes a knowledge of Physics: for all chemical phenomena are more complex than those of Physics, and depend on them in great part: whereas they have no influence on physical phenomena. All chemical action is subject to the influence of weight, heat, etc., and must therefore be treated after them.

Organic Physics requires a similar division into Biology and Sociology. The phenomena relating to mankind are obviously more complex than those relating to the individual man, and depend upon them. In all social questions we see in operation the physiological laws of man; and we see also something peculiar, not physiological, which modifies the effects of these laws, and which results from the

action of *individuals on each other*, curiously complicated by the action of each generation on its successor. It would be manifestly as impossible to treat the study of the collective species as a pure deduction from the study of the individual, as it would be to treat Physiology as a pure deduction from Chemistry.

The Positive Philosophy therefore resolves itself into five fundamental sciences, of which the succession is determined by a necessary and invariable subordination founded on a comparison of corresponding phenomena. The first (Astronomy) considers the most general, simple, and abstract phenomena—those farthest removed from humanity: they influence all others, but are not influenced by them. The last (Sociology) considers the most particular, complex, and concrete phenomena; those most directly interesting to man; they depend more or less upon all the preceding classes, without exercising on the latter the slightest influence. Between these two extremes the degrees of speciality and of complication of phenomena gradually augment according to their successive dependence.

The foundation of a comprehensive Method is the great achievement of Comte, as it was of Bacon, and the influence he has exercised, and must continue to exercise, will be almost exclusively in that direction. Over his subsequent efforts to found a social doctrine, and to become the founder of a new religion, let us draw the veil. They are unfortunate attempts which remind us of Bacon's scientific investigations; and, in the minds of many, these unfortunate attempts will create a prejudice against what is truly grand in his philosophic career. In the *Cours de Philosophie Positive* we have the grandest, because on the whole the truest, system which Philosophy has yet produced; nor should any differences, which must inevitably arise on points of detail, make us forget the greatness of the achievement and the debt we owe to the lonely thinker who wrought out this system.

CONCLUSION.

MODERN Philosophy opens with a Method; and ends with a Method; and in each case this method leads to positive Science, and sets Metaphysics aside. Within these limits we have witnessed various efforts to solve the problems of Philosophy; and all those efforts have ended in scepticism.

There are two characteristics of Modern Philosophy which may here be briefly touched on. The first is the progressive development of Science, which in ancient speculations occupied the subordinate rank, and which now occupies the highest. The second is the reproduction in Philosophy of all the questions which agitated the Greeks, which also pass through a similar course of development: not only are the questions similar, but their evolutions are so.

After the Eleatics had vexed the problems of Existence to no purpose, there came Democritus, Anaxagoras, Plato, and Aristotle, who endeavoured to settle the problems of the nature and origin of human knowledge. So, in modern times, after Descartes and Spinoza, came Hobbes, Locke, Leibnitz, Reid, and Kant. The ancient researches into the origin of knowledge ended in the Sceptics, the Stoics, and the New Academy: that is to say, in Scepticism, Common Sense, and Scepticism again. The modern researches ended in Berkeley, Hume, Reid, and Kant: that is, in Idealism, Scepticism, Common Sense, and Scepticism again. These inquiries terminating thus fruitlessly, a new and desperate spring was made in Alexandria: reason was given up for ecstasy; Philosophy merged itself in Religion. In Germany a similar spectacle presents itself: Schelling identified Philosophy with Religion. Thus has Philosophy completed its circle, and we are left in this nineteenth century precisely at the same point at which we were in the fifth.

Observe, however—and the fact is full of significance—how, in the course of speculation, those questions which were susceptible of *positive* treatment, gradually acquired strength and development. If we are as far removed from a solution of any ontological problem as we were in the days of Proclus, we are not nearly so ignorant of the laws of mental operation. Psychology is not a mature

science yet; but it boasts of some indisputable truths. Although much remains to do, much also has been done; and whatever be the ultimate results of the new Method, it is satisfactory to feel that we have at least escaped from the vicious circle of verbal quibbling and logomachy, and are advancing on a straight road, every step bringing us nearer to positive knowledge, every addition being that of inalienable truth.

Modern philosophy staked its pretensions on the one question: *Have we any ideas independent of experience?* This was asking, in other words, *Have we any organon of Philosophy?*

The answer always ends in a negative. If any one, therefore, remain unshaken by the accumulated proofs this History affords of the impossibility of Philosophy, let him distinctly bear in mind that the first problem he must solve is, Have we ideas independent of experience? Let him solve that ere he begins to speculate.

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