

Physical metempiric / by Alfred Barratt.

Contributors

Barratt, Alfred, 1844-1881.

Publication/Creation

London : Williams & Norgate, 1883 (Aberdeen : University Press.)

Persistent URL

<https://wellcomecollection.org/works/hexwy6pw>

License and attribution

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>

PHYSICAL METEMPIRIC

BARRATT

4-D1

THE LOGIC AND
MORAL PHILOSOPHY CLASS
LIBRARY

UNIVERSITY OF GLASGOW



22102346831

Med
K36037

A 37



Digitized by the Internet Archive
in 2016

<https://archive.org/details/b28113524>

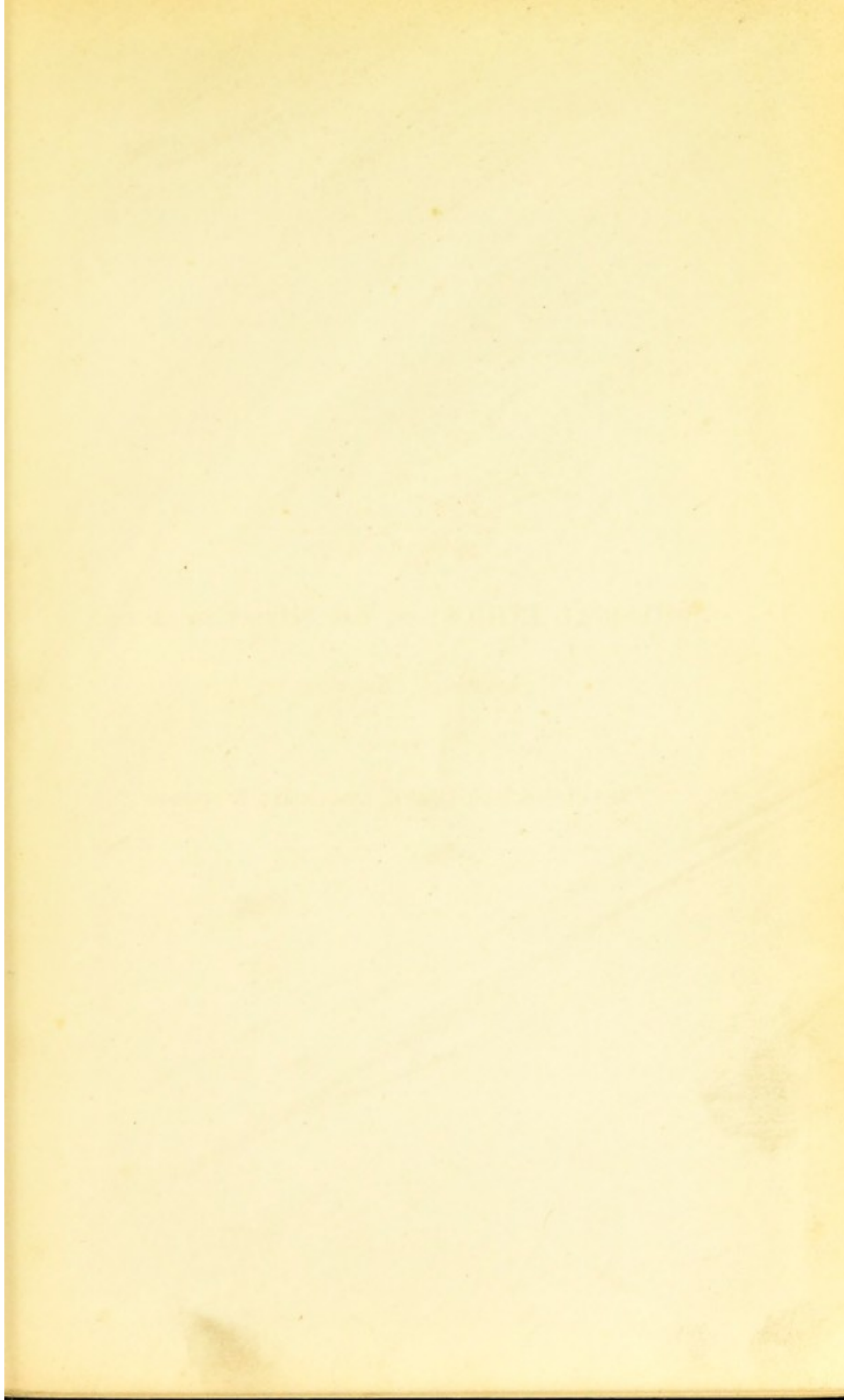
PHYSICAL METEMPIRIC.

By the same Author,

PHYSICAL ETHICS ; or, THE SCIENCE OF ACTION.

AN ESSAY. *8vo, cloth, 12s.*

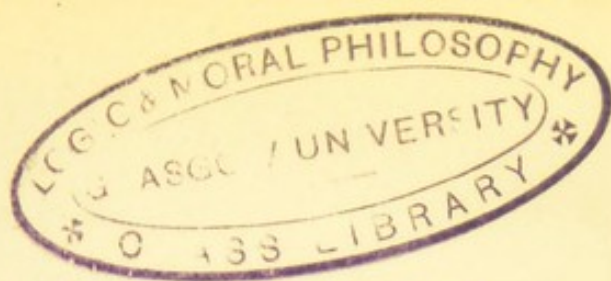
WILLIAMS & NORGATE, LONDON AND EDINBURGH.





For my friend
Miss Darrall

From a Drawing by Dorothea Barrall.

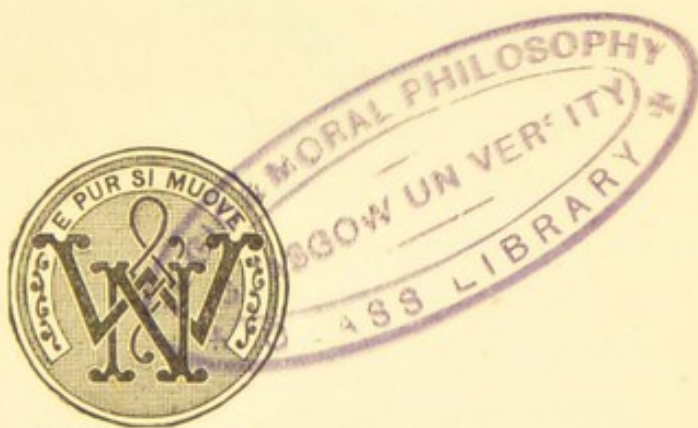


PHYSICAL METEMPIRIC.

BY THE LATE

ALFRED BARRATT,

AUTHOR OF "PHYSICAL ETHICS".



WILLIAMS & NORGATE,

14 HENRIETTA STREET, COVENT GARDEN, LONDON ;

AND 20 SOUTH FREDERICK STREET, EDINBURGH.

1883.

3223

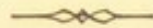
95600

6767 348



WELLCOME INSTITUTE LIBRARY	
Coll.	welMOMec
Call	
No.	WM

P R E F A C E.



IT is only after much consideration that it has been decided to proceed with the publication of the following Treatise, which was left unfinished at the time of the author's sudden and early death, but it has been felt that the responsibility of putting aside the labour of several years upon the highest and deepest subjects, containing much that might be of value in the progress of thought, was too great to incur; and the question was finally settled after hearing from Mr. Carveth Read, who kindly undertook to examine and arrange the MS., that it would be possible to prepare the greater part of it for the press. It thus becomes needful to offer some explanation of the circumstances which prevented the work from being finished, and, at the same time, it may be of general interest to give a short account of the author's remarkable career. In this undertaking I have been much helped by the kindness of those friends who have contributed their recollections of my husband, and I would take this opportunity to express my gratitude to them. My thanks are also due to Professor Croom Robertson, who has taken a

special interest in the work, giving me the benefit of his advice throughout, and being consulted by Mr. Read on all questions of importance that arose in the editing of the volume.

ALFRED BARRATT was born on the 12th of July, 1844, at Heald Grove, near Manchester, being the eldest son of the late Mr. James Barratt, of a Cheshire family, and a solicitor by profession. His mother was of Scottish descent, the only child of Mr. Charles Stewart, H.E.I.C.S. She had two sons, and lost her only daughter in 1872.

Alfred early began to show unusual quickness and intelligence. His mother relates that, at twelve months old, he was able, when asked, to pick out all the letters of the alphabet, though he could not yet pronounce the names of many; and how, at three years old, he repeated by heart a story, told in about twenty-eight verses, which had been read to him only three times. It was soon apparent that he was able to do everything with wonderful ease, delighting especially in music and arithmetic. He had the power of concentrating his whole attention upon a subject, and, when he had anything to learn, he would go by himself into a corner of the room and very soon master it, whatever distractions there might be at the time. He must have been a singular child: extremely shy of strangers and disliking even companions, so that a children's party was only a penance to him. He never cared for outdoor games and riding like most boys; but, as long as he was exercising his

brain in some direction, he was perfectly happy. As a child, he was subject to occasional gusts of passion, and he went through several severe illnesses from which it was feared, at the time, that he would not recover. He also had a habit of walking in his sleep, which was not broken until he found himself one dark night in the middle of Brasenose quadrangle, knee-deep in snow!

When he was eight years old, he went to a small day-school under first a German and afterwards a French master. Here he made progress with modern languages, besides beginning Latin and Greek, and after four years he was sent to a grammar-school at Sandbach, kept by the Rev. Lewis Evans. His masters all agreed in saying that he was the cleverest boy they had known, and he simply carried away every prize that was to be had. At the Sandbach school, there was an under-master, named Hughes, of no common acquirements, who took a great interest in the boy and, seeing how eager he was to learn, taught him in play-hours the rudiments of Hebrew and Arabic, and also a little Persian. Alfred always remembered this master with gratitude, and ascribed much of his success in after-life to the influence received from him.

At the age of fourteen, he went to Rugby, and the present Head-master, Dr. Jex-Blake, who was then his house-master, has sent me the following recollections of him from this time:—

When I succeeded the present Dean of Westminster in his House at Rugby, August, 1858, the most striking of the

new boys was Alfred Barratt. Short and rather stout, with a large head, bright face, and very bright eyes, he arrested attention at once; hovering rather shyly behind his parents, and exceedingly like his mother in the face.

He was placed in the 2nd Fifth, a high form for a boy only just fourteen; but he might have been placed higher, had it not been well never to press by high placing those quick young thoroughbreds, of whom this boy obviously was one. He gained promotion at Christmas into the Fifth, whose master, Mr. Charles Evans, soon to be Head-master of Birmingham, spoke with delight of his memory, and of his power of reproducing whatever had been taught him. At Easter he was promoted into the XX., where he charmed Mr. Thomas Evans, soon to be Greek Professor and Canon of Durham, with his rapid progress in Greek versification and his grasp on subtle intricacies of the Pauline Epistles. The one was a favourite vehicle, the other a pet subject, of the excellent Canon. His first Christmas examination had shown a knowledge of Hebrew that his examiners did not possess. He had learnt Hebrew, in play-hours, from an under-master at Sandbach School; of whom Alfred spoke with gratitude and warmth. He was, of course, a delightful pupil; and every Master who taught him, whether languages, history, divinity, or mathematics were the study of the hour, might feel that the real limit to what the boy could learn was what the master could teach.

My own work as Tutor lay mainly in Composition, and touched perhaps on the weakest points in the boy's mind: a lack of imaginative spontaneity and of natural grace; but in Prose and Verse alike he could translate anything, and could imitate any style.

In leisure hours he was a great reader, not least of novels; was rather good at football, but not otherwise distinguished in games. In temper he was charming: simple, gay, even; and though I have seen him in difficulties, I never saw him

out of temper. He never was Head of the School, leaving as he did at just eighteen,—a year before his natural time, had he not been so exceptionally forward. He won the first Balliol Scholarship when already a Commoner of that College.

During his Oxford days I often saw him, and the same even calmness was visible, with increasing capacities of excellence and delight.

It was thought that at Oxford he gave many hours to whist and innocent sociality; and it was sometimes said that to secure those five First Classes, which no man has done before or since, he must, after all that whist, have worked very hard and very late. My own belief is that he was a most rapid worker, and that his work was done not by long hours, but by intense concentration. He was not physically capable of the slow accumulative processes, or of the long hours of successive fatigue, by which most men, even of quick parts, get through heavy work. Neither the legal business nor the philosophical studies of his later years demanded a continuous strain, or entailed a race against time.

Meeting him abroad, or seeing him in England, after he was thirty, the same variety of intellectual interests was visible; and hardly could a sensitive and highly trained artist have felt keener delight than that inspired in Alfred Barratt by an exhibition of works of the old Umbrian school, at Perugia, September, 1879.

With all his philosophical interests, he was distinctly a religious man and a Christian; willing to talk of religious matters, though not obtruding them. He was most cheerful and unselfish; one of the very brightest of companions.

It may be added that during the four years he was at Rugby, he gained no less than twenty-nine prizes, consisting altogether of a hundred and six volumes.

The Master of Balliol has given a short account of his Oxford course, which began, at Balliol College, in the Michaelmas term of 1862, and Sir William Anson (Warden of All Souls), who was a College contemporary, has also written of those days.

Professor Jowett writes to me :—

You asked me to give you some recollections of your husband during his undergraduate life. I fear that they may be slighter than I could wish.

More than eighteen years have passed since he was elected to a Scholarship at Balliol. He came to us from Rugby with a high reputation, which he fully sustained. At the examination, he impressed the Examiners by his uncommon abilities and wide range of knowledge. Other honours—a double First in Moderations—quickly followed, and before he left Oxford, he attained the unique distinction of three First Classes—in Classics, in Mathematics, and in Modern History.

Notwithstanding the great efforts which were necessary for obtaining such a succession of honours, he seemed never to be wearied or oppressed by study. He took life easily, and enjoyed society as much as any one. He was a most agreeable companion, very amiable and popular among his friends and in the College generally. He was one of a set of distinguished undergraduates who, as often happens with College friends, clung together in after years. In those days he was not much affected by the political or religious questions of the time. If I remember rightly, like the majority of schoolboys, he used to be a Conservative in politics. He was light-hearted, and did not trouble himself with the deeper problems of existence. He had the gift of a simple character, and a mind unclouded either from without or within.

He was elected a Fellow of Brasenose in 1867, and was

soon afterwards called to the Bar. To a superficial observer he would have seemed to possess the very qualities likely to succeed in the legal profession; for to an extraordinary memory he added great readiness as well as clearness of mind. But his heart was not in the law; though honestly desirous of making himself a good lawyer, he had other objects. He was never fired by ambition, or, if he was, only by an ambition of his own, and he probably injured his chances of success at the Bar by writing a book on Moral Philosophy. His friends who had been well aware of his unusual capacity for acquiring knowledge were now surprised to find that a new interest had taken possession of him. This latent interest seems to have been aroused partly by his studies for the school of Literæ Humaniores, partly by the influence of the speculations with which the late Mr. Darwin's name is associated.

The book, which he entitled *Physical Ethics*, is a remarkable work to have been written by a young student at twenty-four or twenty-five years of age. It is an attempt to develop the moral nature of man out of the physical without admitting a break between them, and without losing sight of either. He likes to think of Being as extending from the simplest elements of animal life up to the perfection of the Divine nature. Though he regards revelation as an anticipation of a higher form of religion, yet he strongly insists that "the great ideas of Christianity are wide enough to comprehend the whole breadth and height of human aspiration". There are many links wanting in the chain; and the writer appears to me sometimes to have fallen into an error which he himself condemns in others—namely, that of explaining phenomena by the transfer of words from one sphere of knowledge to another. Yet he also shows many of the qualities of a real thinker. The book is very interesting and in parts eloquent; it exhibits a great knowledge, not only of English philosophy, but of general literature, and is

full of ingenious illustrations. That the theory should not be perfectly consistent will surprise no one who is versed in the writings of metaphysicians. His delight in such speculations, his regardlessness of everything but what appeared to him to be the truth, his precision in the use of language, are true notes of the philosophical habit of mind. The very crudeness of some of his ideas arises from his having thought out for himself subjects which had been already treated of by others.

Another 'love of his youth,' to which, for several years, he devoted himself with characteristic ardour, was Music; and at one time he seriously entertained the thought of becoming a musical composer. The love of music was partially superseded by the interest of philosophy, which, in spite of legal business, continued to the end. He threw his whole heart into the subject. Much more might have been expected from him had he lived, as he would have learned to temper ethical speculation by practical experience, and would have been less under the influence of contemporary writers.

I do not think that he really injured himself by excessive work, though his methods of study were peculiar. His failure of health was simply due to an accidental illness, by which his powers of mind were also impaired. Like some others, he was taken away before he could achieve a distinguished name; but we who knew him will always retain the remembrance of his charming disposition, of his simple and blameless life, and of his great intellectual powers.

Sir William Anson writes :—

I first became acquainted with Alfred Barratt when he came up to Balliol in the autumn of 1862; he was my junior in standing by a term, but I did not get to know him beyond mere acquaintanceship for more than a year afterwards. If I recollect rightly he soon became popular in the College,

making friends more rapidly than was the custom of the Rugbeians of those days with men from the other public schools.

He obtained a scholarship a few weeks after he had come into residence, and joined what was at that time a very brilliant group at the scholars' table. The scholars of that day were not merely distinguished in University honours, they played a prominent part in the social life of the College, and Barratt's habits were eminently sociable.

I remember in the summer of 1864, when he was reading for double Honours in Moderations, wondering when and how he did his work. It was a year when summer began early, and those who were not oppressed by the nearness of the Schools used to sit through the May mornings under the chestnut trees in the garden quadrangle, making believe to read. Barratt, with a book in his hand, would spend his morning among the group of idlers, and would seem almost to have forgotten the responsibilities of a scholar. Yet the two First Classes seemed to come to him almost as of course, and soon after I came to know him better, and discovered the marvellous power of concentration and quickness of apprehension which enabled him to turn to good account every moment spent upon his work.

Besides this, though very capable of enduring bodily fatigue, he had a remarkable power of dispensing with the bodily exercise which the ordinary undergraduate considers to be a necessary part of a well-spent day. Thus his mornings and evenings were comparatively leisure time; his hardest work was done in the hours which we devoted exclusively to amusement.

In the summer of 1865 I joined him on a reading-party at Dresden. We travelled thither in company with two other Balliol men, there to meet Ilbert, then the junior fellow of Balliol, and to be 'coached' by him in logic and moral philosophy. Barratt was then about to attempt the Honour

School of Literæ Humaniores on eighteen months' reading, an attempt seldom made by men who aimed at a First Class, and still more seldom justified by success. Yet he was by no means oppressed with the task he had undertaken. He was the only one of our outward-bound party who had any experience of foreign travel, he possessed the bulk of our meagre stock of German idioms and phrases, he knew the mysteries of the registration of baggage, and under his guidance we made our way to our destination. He was a capital fellow-traveller, seemingly insensible to fatigue, and uniformly cheerful under the changes and chances of a long journey.

And our life at Dresden is a pleasant time to look back upon. We lived in spacious lodgings in the Räcknitz Strasse, occupying in common a large sitting-room in which we each appropriated a corner; and every morning Barratt and I repaired to Ilbert's private room to be instructed in logic and metaphysics. I did not then realise how much he was really interested in this portion of his work, for his facility was so great as to create an impression among his companions that he cared for no one subject more than for another. All that I did realise was his rapid comprehension and appreciation of things which seemed to me to be dark and unfruitful sayings, and the absence of effort with which he turned from metaphysics to Greek history, and from that to the enjoyment of the "music of the future" which we then heard for the first time. We spent our mornings at work, our afternoons in sight-seeing or wandering about the neighbourhood, or listening to a concert in the public gardens, our evenings at the early opera, and at work again. But often when we started on our afternoon ramble, unless sights were to be seen or music to be heard, Barratt would light his pipe and settle down to the serious work of the day.

We came back to England early in October, and in the course of the ensuing term he obtained his Classical First Class.

And now began the most remarkable part of his University career. For the next six months he appeared to be enjoying that leisure for miscellaneous reading which used to be considered a man's due, when having obtained a good First Class, he proposed to work for a Fellowship. He worked at mathematics, but his friends hardly understood that he was working with a view to double Honours till in the summer of 1866 his name appeared in the First Class in the Final Mathematical School.

In the long vacation I lost sight of him, but we had arranged that I should take up my abode in his lodgings in the October term, in the Broad Street just opposite Balliol, and work together for fellowships. I came back to Oxford before term began, and his return was a little delayed by business arising from the death of his father, which had taken place in the long vacation. When he did come back and we were settled in our lodgings, he told me that he was meditating an attempt upon another First Class, and had begun to work at Law and Modern History.

His work in this term was the most extraordinary process of rapid acquisition and methodical arrangement of knowledge in a subject which was to a great extent novel to him. He had been reading mathematics until the middle of June; his long vacation had been broken into by the family sorrow which I have mentioned. Throughout the whole term he was certainly the most sociable and seemed to be the most leisured of companions; the week before the examination in the Law and History School he stood for the Balliol fellowship and narrowly missed it, and then he obtained what I believe was a very distinguished First Class in the Law and Modern History School. He thus achieved five Classes within four years and two months from the commencement of his residence, a list of honours which has no counterpart in University history.

At the end of this term I went abroad, and though Barratt and I never lost sight of one another, the period concerning

which I have been asked to write ends here, and others may follow it up with better knowledge of his after life.

But there are two matters which I would not pass over. One is the strange fortune which caused a man who had obtained five Classes to have to wait for more than a year, and to make several unsuccessful attempts before he could obtain a Fellowship. I attribute this to a certain unreality which marked the intellectual standard at Oxford in his time. It used to be said that the Final Classical School taught the science of writing leading articles, and this was so far true that a man was apt to get undue credit for the power of throwing a little knowledge into an artistic form and for a certain faculty for literary display. The tide has turned, and it may be that the amount of knowledge now exacted from the student overtaxes his powers of assimilation, and leaves him too little capable of literary effort or the artistic arrangement of ideas. Yet the test of acquisition is a sound one, and may lead to less disappointment in the long run, than the assignment of substantial and permanent rewards to work that is regarded as "interesting" or "suggestive" or as exhibiting the "historic sense". For criticism of this sort Barratt's work was ill adapted. He would write the history of an idea or of an institution, and his work would be rapid, methodical, and full, but he stated results, he did not think it worth while within the compass of an examination-paper to reason upon them independently, or to make any show of literary ingenuity. He had a great deal to say, and he so said it as to convey the impression that his mind was a mere repository of facts. It is strange that while such a judgment was being passed upon him, he was in course of composing a book, which is not only markedly original, but is charged with an enthusiasm surprising even to those who knew him best. Whatever the cause may be, it is not very creditable to the system on which fellowships were awarded that a man of Barratt's immense

and ordered knowledge should have been four times an unsuccessful candidate.

And lastly, though his manner was undemonstrative, I think Barratt was one of the friendliest men I ever knew. Whether a long or short interval elapsed between our meetings he was always the same, full of quiet interest in all that concerned his friends. I do not think that anything of any importance happened to me since I knew him, but I received a note of sympathy, of congratulation, or of good wishes. His friendship was a little like his work, it went on so quietly that only upon occasion one discovered how full and genuine it was.

It is not exactly known when *Physical Ethics* was commenced; but in a letter on the 9th May, 1868, (some time after he had been elected Fellow of Brasenose) he writes: "I am thinking of publishing an essay on Moral Philosophy (of all subjects) which I used to amuse myself with at Oxford, at times when they kept me up there with nothing to do". The book appeared in January, 1869.

After this he seems to have determined to settle down to the Law, the profession which most naturally suggested itself, and he began reading with the late Vice-Chancellor Wickens, and afterwards with Mr. Horace Davey. He was called to the Chancery Bar in 1872, and took chambers at 11 New Square, Lincoln's Inn, at first with his friend Mr. George Farwell, who writes as follows:—

My acquaintance with Alfred Barratt began at Rugby, but our friendship commenced at Balliol. I was in the Sixth with him at Rugby for only three months, and therefore was never intimate with him there. One of the most endearing points

in his character was his kindness to his juniors. I have a vivid recollection of the consolation that he afforded me when I was in for the Balliol in November, 1864: he met me coming out of hall about 9 p.m., after nine hours' examination and feeling rather forlorn and very weary, and carried me off (although our acquaintance then was of the slightest) to his rooms, and gave me tea and encouragement and pleasant talk. When I came up to town to read Law in October, 1869, he was a pupil of the late V. C. Wickens. We lived together at 18 Ryder Street for some months, and used to read Law together in the evenings. His versatility was very striking; after a couple of hours of Law, he would take refuge in his piano and the mysteries of thorough bass, and during the first six months of 1870 he taught himself Spanish in addition to the numerous dead and living languages which he then knew. In the summer of 1870 he had an attack of small pox, and it has always appeared to me that he never quite got over it although he was never, I believe, dangerously ill. I was not living in Ryder Street at the time, but I used to see him every day, and he was always cheerful and in good spirits, but the illness appeared to me to leave a lassitude, which united with his natural distaste for Law to turn him away from it. He gave me the impression that he learnt Law because he thought it his duty, not because he liked it; his real devotion was to Philosophy. I always thought him a master of legal principles; his great mental powers were admirably adapted for the study of Law, and his marvellous memory was as retentive of cases as of other things; but his heart was never in it. I have heard Mr. Horace Davey, with whom he read, say that Alfred Barratt was the best pupil he ever had, and that his faculty of getting into the heart of a mass of papers and discriminating between the relevant and irrelevant was remarkable, and I am confident that if he had desired success at the Bar, he would have commanded it. But he never did become engaged to any extent in practice, and the ordinary routine

of a conveyancer and equity draftsman's life gives no scope for incidents worth relating.

At Rugby he had formed a great friendship with Richard Hart-Davis, now Vicar of Dunsden, near Reading. They were in the same house, and afterwards both at Oxford, and frequently went abroad and on walking-tours together. They always looked upon one another as brothers; and this they were destined afterwards to become, by the marriage of Alfred with his friend's youngest sister, whom he had known since she was a child of five years old. We were married in May, 1876, and spent together five years of happiness, having one child (a daughter) born in 1878.

It is impossible in a few words to give any adequate idea of the charm of his character, but one special point ought to be noticed. This was his great humility. With all his intellectual ability and extraordinary knowledge, there was something so wonderfully gentle and unassuming in his manner that he won the confidence of all, and made everyone feel at their ease with him. He always entered into the things that interested others, while it was almost impossible to get him to talk of himself. Perhaps it was this rare forgetfulness of self and ready sympathy that endeared him so universally: there are few men who have made such a large number of great personal friends. He was a delightful companion, full of life and energy, insensibly influencing others with his bright cheerfulness; always simply and easily amused, and enjoying fun with the heartiest laughter.

His tastes were extremely varied, but, while alive to beauty in all things, he cared most for the works of the older masters of painting, music, and poetry. He went several years in succession to Dresden, where he enjoyed the life to the full, and began the study of musical composition, which was afterwards a source of great pleasure to him. Then he became very fond of Italy, rambling about in out-of-the-way places, and discovering everywhere fresh delights and treasures. A beautiful view (especially of mountains) gave him intense pleasure, and he would often make small pencil sketches, most elaborate in detail and carefully finished, which give a very true and exact impression of the place. Indeed he was remarkably neat in everything, and his many note-books are filled with very minute but perfectly clear handwriting, without a blot and hardly an erasure.

His philosophical studies obliged him thoroughly to understand German, and he was also able to enjoy reading French, Italian, and Spanish books. He never left home without some favourite Greek or Latin author for a companion.

In politics his sympathies were liberal and wide-minded. His religion, though of a different type from what is generally accepted, was real and deep; and it bore the fruit of a blameless, true, and loving life, devoted to the advancement of thought and the patient untiring search after truth.

It is probable that *Physical Metempiric* was commenced the year after his marriage. At first he was engaged upon a work in which he discussed the

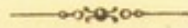
arguments for and against the establishment of religion by the State, but this he afterwards laid aside. He generally kept his MSS. at his chambers in Lincoln's Inn, working at them in the intervals of professional business. At times he would seriously think of giving up the Law altogether, and he would often complain that he had been unable to do anything owing to a case "which had wasted all his time". He did not exert himself to get a larger practice, partly because he had a very strong dislike to putting himself forward, but principally because his heart was altogether in his philosophical thinking. Indeed, he seemed now to have exhausted personal ambition, and to care only for adding to what he had called "the highest truths of existence". He had no wish to make a name at the Bar, and he did not think himself suited to that kind of work. At the same time, he never for a moment neglected the briefs which he received, but gave them his whole attention, and acquired the character of being extremely expeditious.

In the autumn of 1880, he was offered through a friend the temporary post of Secretary to the Oxford University Commission, which was vacant by the death of the late Mr. Dallin, and, after some hesitation, he came to the conclusion that it was his duty to accept it. Having always taken a great interest in Oxford, he thought he might find the work congenial, but he did not realise how much additional labour and worry of mind it would entail. He had now to attend at the rooms of the Commission, in

Victoria Street, two or three days in the week, and often brought home writing which occupied him also in the evenings. He and Mr. Montague Bernard, the Chairman, whose recent death was hastened by his labours, used often to meet together alone, in order to get through the work which they were anxious to press forward. At the same time he did not give up his chambers, and he was now trying to combine this new work and his legal business with the writing that he was wishing to finish and publish as soon as possible. He had not seemed quite well in health for some time, though he would not see a doctor or allow that there was anything the matter, when his strength, impaired perhaps by his life-long exertions, suddenly gave way. He sat up late the last few days of April, 1881, finishing the Report of the Commission, which he accomplished, and on the 1st of May he was taken ill with paralysis. On the 18th, little more than a fortnight after, at the early age of 36, his spirit passed gently and unconsciously away to another world, where the mysteries he strove to solve are made more clear. He was laid in Hendon Churchyard. Dr. Jex-Blake read the service, and many faithful friends, from far and near, met in that quiet country place to pay the last tribute of affection and regard to his loved memory.

DOROTHEA BARRATT.

EDITORIAL NOTE.



THE following work, had it been completed according to the Author's design, would have consisted of two parts, the first expounding a theory of the ultimate nature of the world, and the second making an historical survey of other philosophical doctrines on the same subject from the earliest times, in so far as his own view challenged comparison with them. On inspecting the MS., however, it appeared that unfortunately the second part was not enough advanced to justify publication : its most important chapters especially were unfinished. But the first or constructive part was in a state of greater forwardness : and, as it seemed practically independent of the second or critical part, and set forth speculations of great originality related in the closest way to existing controversies and tendencies of opinion, and as the communication of these thoughts to other minds was plainly an object the Author had much at heart, it was determined to print it, and accordingly it is now laid before the public.

In passing the book through the press, care has been taken to introduce as few alterations as possible.

Two or three paragraphs manifestly unfinished have been omitted, punctuation has been sparingly supplied, and a phrase occasionally modified when the avoidance of ambiguity or tautology made it necessary to do so. But nothing has been done to impair the effect of the Author's broad and flowing style as it spontaneously followed the first vigorous and discursive movements of his intellect, strong without abruptness and subtle without obscurity. One or two footnotes, the only additions, are enclosed in square brackets.

An Appendix to the volume includes three essays on Moral and Political subjects reprinted (by permission) from *Mind*.

The MS. had no title, but the one affixed to the book has been taken from the text.

The following extracts are from the Author's notes for a Preface, which were too incomplete to be wholly reproduced.

I should like briefly, once for all, to state my position in this respect. My one metempirical belief which I hold as the one conviction that makes existence tolerable, is the belief that other beings like myself exist as I do: but I do not think this can be proved by reason from experience, and I have thought it worth while to state the reasons for this. . . . But given this one belief as true, I want to shew how near a man can get to a satisfactory solution of the universe as known without more. It will remain for such of my readers as may have a wide power of imagination, to consider in what way this metempirical belief is a prevision of some future experience or even of some actual experience in a wider sense, one which we do not *know* because we cannot *measure*.

May there not be some way besides the sensible and material way in which one mind can affect another, by feelings not of colour or sound, but of love and sympathy and joy and reverence, and the untold myriads of warm and noble ideas which form the contents of some human minds, and the feeling of real invisible union among the spirits of all the universe? May there not in this way, which is altogether out of Space and Time, be some communion of a different kind, in some form which we can only vaguely feel? The man who to such questions answers 'I trow not,' seems to me not capable of some of the most real feelings in our human nature. . . .

For my own part, I cannot believe that the test of sensible verifiability will ever satisfy the higher longings and aspirations of humanity; and though I cannot say a word against it from the point of view of verifiability, I am strongly convinced that my whole nature would lose if it were to stop at any such stage, and that the whole future of humanity could be looked at only in despair if any such limit were assigned to its right to take in thoughts which it is here impossible so to verify. But I have thought it worth while in this volume to examine how far the recent increase of knowledge may help a man who thinks about these things at all, to turn his thoughts in such a direction as shall be at any rate not in contradiction with ascertained facts. It appears to me that this course cannot be without value when we consider that, at least under the conditions of existence which form our present life, experience and reasoning from experience, or in other words those mutual relations of conscious centres which are measurable and quantifiable, seem given us as the source from which all qualities and powers of the human mind have been somehow derived, and seem to form at least one constant condition of its future development. What other forms and conditions there are of the relations of individuals to each other or of

each to some mighty whole, how they affect one another, what is the ultimate meaning of fact at all, and whether it will last for ever,—are things that no man can hope to teach another, for he has no arguments to use which can compel assent. In this volume I confine myself to the region where I take argument to be available, and I address myself to those alone who admit the value of following fact and reason so far as they will go. On no other basis is it possible for one man to speak to another, for a common experience is all they have to appeal to; the rest must lie in the nature and character of the man himself—that nature and character, that storehouse of great ideas and sympathies, that element of what we call the Divine, which all of us acknowledge, in our more serious moments, to be the noblest and highest flower of the universe which we know. Such regions are not for reasoning, or not for it in the first place: they are for reverence and awe in the presence of things beyond our present knowledge, if we are men capable of such feelings, a serious out-looking and out-imagining with these human faculties, stretching into regions which eye and ear can never penetrate, though still remembering that eye and ear, our well-tried counsellors, tell us that they have given us in some mysterious way the power of transcending them. . . .

CONTENTS.

CHAPTER	PAGE
I. DEFINITIONS	1
II. THE PHYSICAL METHOD	4
PHYSICAL METAPHYSIC	4
PHYSICAL METEMPIRIC	13
METEMPIRICAL DATA	16
III. OTHER CONSCIOUSNESS	19
APPLICATION OF THE PHYSICAL METHOD	28
IV. THINGS-IN-THEMSELVES	34
V. THE ATOMIC THEORY	52
VI. MONADS	56
VII. TIME AND SPACE	74
VIII. NOUMENA AND PHENOMENA	84
BROAD ASPECT OF EVOLUTION	87
IX. MONADISM AND MONISM	97
X. PHYSICAL EVOLUTION	122
XI. EXISTENCE	129
STATICAL EXISTENCE	132
DYNAMICAL EXISTENCE	137
XII. MENTAL EVOLUTION	156
XIII. THE GENERAL THEORY OF THE RELATION OF MIND AND MATTER	169
PHYSICAL QUESTION	170
METAPHYSICAL QUESTION	171
METEMPIRICAL QUESTION	215
XIV. OBJECTIONS	220

APPENDIX.

CHAPTER	PAGE
I. THE "SUPPRESSION" OF EGOISM	257
II. ETHICS AND POLITICS	278
III. ETHICS AND PSYCHOLOGY	304

ERRATA.

Page	6, line	6, <i>for</i>	No wit	<i>read</i>	Now it
"	70,	"	17,	"	Spinoza " Spinoza
"	185,	"	17,	"	<i>Fechner</i> " Fechner,
"	245,	"	28,	"	<i>machená</i> " <i>machiná</i>

CHAPTER I.

DEFINITIONS.

It will be well first to define the meaning with which certain terms will be used in the following pages.

Physic, Metaphysic, Metempiric.

All possible objects of speculation lie either wholly within, or wholly or in part outside, experience. The former region, *Empiric*, has two divisions, *Physic* and *Metaphysic*. *Physic*, or Physical Science, is the Science of the external universe, or objects in space. *Metaphysic* includes the whole remainder of Experience, or the Knowable; that is to say, first, *Metaphysical Science*, which comprehends both the sciences of the inner experience (such as Pure Logic and Pure Psychology) and also the Psychophysical Sciences, which deal with the special relations between inner and outer, such as the science of sensation and the science of action (of which Ethic and Politic are parts); and, secondly, *Philosophy*, which treats of experience as a whole, its nature and its relation to its parts. *Metempiric*, on the other hand (if I may adopt a convenient term of Mr. Lewes's), includes all speculations which are not directly or indirectly verifiable by sensation, which therefore transcend Experience and lie in the region of the Unknowable. The definition of 'Metaphysic' given above seems the most natural and useful meaning that we can assign to that ill-used word: it points to two cross divisions of the field of experience which are often confounded; the one into *Physic* and *Metaphysic*, the Outer and Inner, that

which is wholly in space and that which includes the out of space; the other into Science and Philosophy, the special and the general, the details and the architectonic unity of the whole. The distinction, too, of Metaphysic from Metempiric is thus clearly marked, the former being part of the Knowable, the latter being coextensive with that which strictly speaking is Unknowable. Mr Lewes identifies Metaphysic with only that part of the extra-physical part of knowledge which I have called Philosophy, "the ultimate generalisation of Research" (*Problems of Life and Mind*, i., 16, 71), "Objective Logic," or the "codification of the Laws of Cause" (i., 74), but surely this is not all that comes "after Physic" (i., 16).

Noumena.

This name is used to designate Kant's 'Things-in-themselves,' the metempirical realities of which material objects are phenomena. This use of the word, though it looks unlike that of the earlier philosophers who used it rather to express what we call 'concepts' as distinct from 'percepts,' has been so general since Kant that it seems best to adopt it. Indeed the two meanings are really the same, for Things-in-themselves are after all only our mode of conceiving them; only they are thus conceived not in their phenomenal relations, as objects, but rather (if it be possible) in themselves.

Feeling.

I use this word throughout not as meaning any of the more developed forms of consciousness such as perception or self-consciousness, but as a *nomen generalissimum* to express the mere fact of subjective or inner existence in its most rudimentary form. Our nearest approach to the power of realising it is when we take the fugitive feeling of any instant without trying to perceive it or feel what it is, and simply say 'I feel,' or rather 'Feeling is,' or rather merely 'There is'. Its simplest qualities are Pleasure and Pain.

Consciousness

Is a most ambiguous word. At first I was inclined to

identify it with the inner rudiment, but perhaps that is better expressed as Feeling; for Consciousness is rather used in the more confined sense which implies the reflex co-operation of will in action, or perhaps more accurately in attention preceding action, the feeling of effort from which come self and not-self, outer and inner, subject and object. Others would even confine it to Perception, but this seems absurd; we are conscious of many feelings which we do not perceive. If Consciousness is coincident with Feeling producing movement, we get it as an act of self-conservation, a principle of action which as we shall see goes down into the atomic world. But Consciousness seems at any rate to require change in Feeling: the latter is therefore the more general word.

Objective.

There is no word of which the use in Philosophy is more ambiguous than this. I shall always, except where the contrary is evident, use it to mean the bundle of relations *perceived* as an object, as opposed to the unrelated absolute feelings which are only felt. It is not therefore opposed to subjective or internal, for there are many subjective objects, for instance any special state considered only as to its internal relations, and not as part of a physical object. Nor again has it anything to do with the German use of the word, derived from Kant, which implies a common agreement of all men in their representation of a sensible thing, what has been called the 'social object': of course what is an object to one man may be an object to many men, but so soon as it is perceived by a single perceptive intelligence, it acquires 'objective existence,' it is an 'object' to that intelligence.

CHAPTER II.

THE PHYSICAL METHOD.

WE have distinguished above three regions of speculation, Physic, Metaphysic, and Metempiric. Now of these it is clear that, at least until a very recent period, Physic was the only one in which knowledge was either certain or exact or progressive. The reason of this is also clear—namely, that there alone are we able to employ with completeness the Method of Measurement, which gives accuracy, and the Method of Experiment, which gives certainty. The persistence of physical objects enables us both to apply to them common measures and to study their various aspects by varying their mutual relations and our own relations in regard to them. But this is far from being the case in the other regions of inquiry—and the difficulties of the older Metaphysic and Metempiric came mainly from two sources: first, from asking an explanation of Metaphysical and Metempirical problems in terms of Physic; and secondly, from not seeing how to guide Metaphysical and Metempirical theories by Physical evidence. The first brings nothing but confusion (as in the doctrine of Materialism), the latter leads to fanciful theories which are in irreconcilable conflict, and all equally destitute of solid foundation.

§ 1. PHYSICAL METAPHYSIC.

First let us look at Metaphysic. This, as we have defined it, is concerned wholly or in part with the inner experience.

Now, that part of it which we have called Philosophy, and which considers the nature of experience as a whole and its relation to its two parts, Physical and Metaphysical Science, clearly cannot depend on the examination of either of the parts: it can only rest on a general analysis of experience. The result in this case is however pretty evident, at least in its general principle, and takes some form of Idealism. When however we come to the other division of Metaphysic, the scientific portion, which treats of the inner phenomena and their relation to the outer, we find the need of more special facts, and the question of method at once comes in. Now if we begin by trying to observe these inner phenomena directly, we soon find that they are not only fugitive, and thus incapable of accurate measurement, but being homogeneous with the process of inquiry, are affected and altered by it, so that not only experiment but even observation is vitiated. Moreover, the present feeling can never itself be an object of observation or reflection; we can never seize it to make an object of it till it is past. So that, as Mr. Hodgson says (*Time and Space*, p. 177), "the present moment of consciousness" (which is the only absolute certainty) "is the darkest spot in the whole series of moments of reflection". Even, therefore, to men who admitted the metaphysician's claim that truth being the product of thought, the principles of truth must be discoverable not indeed by observing thought as an object like other objects (for that would be to make a thing its own product, objects being products of thought, or 'to bring the source of the Categories under the Categories'), but by analysis of the thinking process and its results: even so, since even analysis requires preliminary observation (for we can analyse only data), the defects of the Introspective Method, the only method natural to Metaphysical inquiry, seemed to surround such inquiry with a hopeless impenetrability, and make Metaphysic a standing reproach to the human intellect. These deficiencies in the method apparently

proper to Metaphysical Science have brought all clear-headed Metaphysical inquirers to seek to establish some relation between their study and the region of measurable and verifiable external fact, so that some shadow at least of scientific exactness may be thrown on the dim and vague outlines of Metaphysic. No wit was easy enough to discover certain broad connexions between the laws and order in the inner and outer series, and indeed to see that they must be at root identical. From whichever point of view we start this is the conclusion. On the one hand we may say that the inner series is an evident copy of the outer, both in its elements and the laws of their succession, ideas being copies of impressions and association depending on physical sequences. From another point of view the physical universe of science is a product of thought or reasoning. Thus it seems as if the mental order was at once the product and the producer of the physical; at any rate to Materialist and Idealist alike it is either one or the other, and to both therefore the laws of mind and of nature, of inner and outer, must be identical. This observation, however, though it seems at once to admit Physic to give evidence on Metaphysical problems, and though it has been most useful in co-ordinating general principles and proving the unity of experience, is too wide to be of any use in details, where the Metaphysical want is felt most keenly.

This want, however, of a more detailed connexion between Metaphysic and Physic has, though only in the last few years, been supplied, and rather by the hostile advance of Physic than from any ingenuity of device on the part of Metaphysic. It has come not by the development of any general fact of Philosophy, but by the working of science from a special Metaphysical fact—a very old fact, indeed the earliest Metaphysical fact to be observed of any; but the full significance of which was not apparent until the recent progress of the organic sciences. I mean, of course, the fact that to each

man the whole of his experience, both inner and outer, is found to have a certain special and peculiar connexion with a particular portion of the external universe, which he calls his body; a connexion which, according to science, is so definite and so accurate in its details, that every particular conscious state has for its invariable concomitant a particular physical phenomenon of nervous tremor or vibration, so that the occurrence of the one is a sure mark of the occurrence of the other. What may be the nature or proper description of this constant relation between the conscious state and the physical phenomenon is not at present material; its existence is all that is wanted. For the device to which I am now referring, and which has revived Metaphysic, consists simply in taking the physical phenomenon as the *symbol* of the concomitant conscious state, by which means we are enabled, as in the analogous symbolic operations of Algebra, to work in terms of the symbols, and thus arrive at results in terms of the symbols which have only to be retranslated to be true of the states of consciousness which they symbolise. The advantage of this in the present instance is that the symbols are portions of the external universe, and can therefore be treated by the Physical Method, so that we can now introduce all the advantages of that method into Metaphysical inquiry.

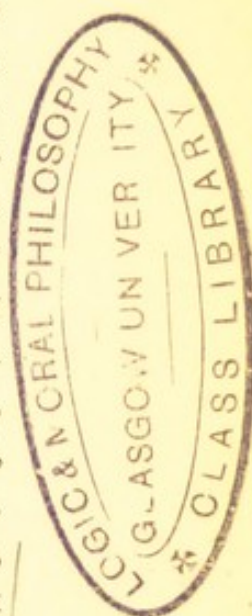
An objection is sometimes brought against the possibility of such introduction, on the ground that if objects are the result of thought it is "preposterous" to explain thought by material objects; for how can matter be the cause of the existence of mind, and mind the cause of the existence of matter? Wherever we find an object to which we can give a name, there we find thought; hence the genesis of thought can be traced to no nameable or thinkable object without *petitio principii*. (See for instances Green's *Hume*, i., pp. 164-165.)

Now this objection is perfectly good against ordinary Materialism, but it has no validity against the use of the Physical Method. For the point of that method, as I have

tried to explain, is that it uses the physical objects and phenomena only as symbols to be operated on and with, and to be eliminated entirely from the final conclusion, not as substantive terms entering into that conclusion. The latter is the mistake of Materialism which makes matter as known an explanation of mind, an object the cause of the subject, not remembering that wherever there is an object there is a subject already, wherever there is matter there is already mind and thought, and that to talk of a material object existing as such apart from a perceiving subject is since Berkeley mere nonsense. It is clear that if we are ever to explain the universe, physical and mental, our cosmogony must start from something different from material objects, in fact, something different from either object or subject as such, for as each of these already involves the other it cannot possibly be the source from which that other is derived, it must therefore be something prior to knowledge and strictly speaking unknowable. How far our own theory fulfils these conditions will appear hereafter. But as to the mere question of the use of the Physical Method, which I advocate, it need only be said that this treats the material phenomena of consciousness, not as causes or explanations of consciousness, but merely as its marks or symbols; it does not care what is the nature or explanation of the bond between the *nota* and the *notatum*, between mind and matter; that it can never tell us, though possibly it may put us in a position from which, by some bold identification of the reception of impressions by ourselves with the result of the efficient agency of foreign noumena, we may form some plausible hypothesis as to the nature of that bond: but in the meantime, and to justify its own right of working in this sphere, the method simply assumes the existence of the bond, and entirely ignores its nature. That being so, I contend that it is unimportant for the validity of the method that the symbols under certain circumstances take imaginary or even impos-

sible values, if only I can with retranslation get an intelligible result in rational terms.

No doubt, if I go back beyond the evolution, not only of a particular individual mind, but of thought generally (and it is only when I get to this region that the objection applies), material objects anterior to thought are in a sense imaginary. They are potential not actual; and though it perhaps might be argued that when thought supervenes it throws back existence on them, and makes them now to have actually existed then—the thought which constitutes existence being not a contemporaneous thinking and perceiving mind, not an individual perceptive Ego, not a historical condition at all, but a logical element, not in time and independent of time, the addition of which completes the existence of the object, including its temporal or historical relations,—still, I confess, it seems to me that if objects exist *only* as thought, to speak of thought as only an element in them, so that even in its absence they have a certain incomplete existence, is a fallacy, and that if thought is not in time objects are; so that unless we allow actual existence to the thinkable as well as to the actually thought, the only objective existence (if any) predictable before the evolution of thought is potential or future, not actual. But, however this may be, the relations among these objects, whether the objects themselves be potential or actual or non-existent, must be taken to be as if they were actual; for if the relations were different, the objects themselves would be different, not only in mode of existence, but in nature. For the purposes of working with these objects, therefore, as symbols, it does not matter whether their values are real or imaginary, whether *as objects* they existed actually, potentially, or not at all. Then, when we pass over from the symbol to the reality, from the material objective phenomena to the inner noumenal consciousness of which they are marks or symbols, the difficulties as to potentiality or actuality or non-existence disappear, for the existence of a conscious



state does not depend, like that of a material object, on *percipi* or *intelligi* by its own or by another conscious series (which latter is an impossibility), it is not objective but absolute, it may well exist actually—though of course not objectively—before and apart from all thought whatsoever. To put the matter shortly, the Physical Method does not attempt like Materialism to explain mind by matter, subject by object, or *vice versa*; it explains mind by mind, matter by matter, and allows the complete parallelism of object and subject. But, inasmuch as material relations are better understood and examined than mental, it uses the connexion which it finds as a fact existing between certain members of the two to elucidate the latter by means of the former, even though the material symbols may be in some part of the process 'imaginary'—the symbolised conscious states being throughout real. As the eye can study itself through its phenomenal reflection in a mirror, so by the help of this method the mind is able to study its own working and history through its symbolism in physiological and other material phenomena.

And before I leave this subject of Method, I would remark how different is the symbolism above explained from that which has produced so many empty philosophies, the symbolism of words and abstract ideas. These are symbols which, inasmuch as they are the construction of the human mind, will appear to lead it wherever its fancy chooses. A system like Spinoza's or Hegel's is easily made, for its foundations, being so many stages removed from facts that they can no longer be tested by them, and being mere conceptions or words, can be constructed suitable to bear any superstructure, and if necessary can be altered so as to produce the requisite facts. But inasmuch as this can be done in many ways, each such system has no more title to credit than its neighbours, and has nothing but consistency and symmetry to recommend it. The symbols on the other hand of the

Physical Method are not words or ideas, or other products of man's device, but actual physical facts, and the way of using them is not by imagination or abstraction, or mere logical reasoning, but by actual observation and experience. The successive steps of the method, and the edifice which it raises, are therefore not in the air of speculation or in the unbounded expanse of unverifiable hypothesis, where general terms and abstractions are the only substance or supporting medium, but on the hard ground of physical fact, on which alone can we hope to make any real progress, or to raise any permanent building. These systems not only use dangerous symbols, but they commit the same error as Materialism commits in the case of physical symbols, namely, in treating them ultimately not as symbols to be retranslated, but as realities which may be taken as causes. These abstract conceptions and general terms are not eliminated from the final result, but remain there as the foundation of the whole, as if they had some existence of their own; and the cause of this is evident enough, for as they are never, or never after the first starting, brought into any comparison or contact with actual fact, the effect of long manipulations and transformations is gradually to eliminate all the reality in them, and ultimately to make them utterly untranslatable into any concrete fact at all. The symbols have accordingly to set themselves up as realities, as in fact the foundations of the universe; and we get the curious result of a physical universe, and even individual minds deduced from abstract ideas or general names (for the names have often not even ideas belonging to them), a result which is at least as much a *ὑστερον πρότερον* as the Materialist production of mind from its product matter. Matter is at any rate less obviously a product of thought than 'Being,' 'Idea,' 'Infinite,' and 'Absolute'.

For the rest the great test of the Method is its practical success. It would be hardly too much to say that the whole

of the recent progress in Metaphysical Science has been due to it. The past, even the remotest past, has been called to throw light on the present, which was before impossible, owing to the impermanence of Metaphysical phenomena, and the defects and limitations of memory. Psychology has been illumined and amplified by Psychogony; Metaphysical Dynamic has been added to Metaphysical Static, and the whole study of Metaphysic has been awakened from the dead. These are some of the results of what I may call 'Physical Metaphysic' in its form of Physiological Psychology. In England the great outlines of the work have been drawn by Mr. Spencer, and details are being continually filled up on all sides. In *Physical Ethics* the present writer gave an example of the application of the Method to the sphere of moral phenomena, and in the result established, as he contends, a true Science of Ethic. The main principles arrived at were that 'Good' is evolved from, or made out of, pleasure, and that the 'Moral Sense' is only the supreme organisation of man's whole emotional nature, the component elements of which are merely ideas or anticipations of pleasure and pain. These principles were reached, first by tracing the phenomenal symbols of moral action down to the simple rudimentary law of animal tissue, that of Self-conservation, which law itself, so far as it is not explicable by Natural Selection, has evidently its roots deeper down "in the elementary physical properties of matter". It is, in fact, as Spinoza says, 'the very essence of the thing,' it is the 'persistence of matter' and the 'law of identity'. And secondly, by retranslation, which was facilitated by the observation that the two kinds of contraction which tissue exhibits under stimulus, into which contraction all the phenomena of moral action were resolved, "are the phenomena and marks of pleasure and pain respectively". "Hence," it was concluded, "the tissue acts so as to secure pleasure and avoid pain by a law as truly physical as that whereby

a needle turns to the pole or a tree to the light" (p. 52). Pleasure and Pain were shown to be the 'form' of Ethic in the same sense as Space is the 'form' of Physic. Thus the laws and construction of the moral nature were investigated through their physical symbols, and the results so suggested being verified by deduction from the moral consciousness itself, Moral Science was not only placed on an exact and certain basis, but was taken up into the great organism of knowledge, its principles being shown to be "not mere bye-laws of an insignificant species or genus, but co-eternal and co-infinite with that imperial code which holds the planets in their courses, whose 'voice is the harmony of the world,' and whose 'seat is the bosom of God'" (p. 115). Thus the vague guess of the Stoics and of Spinoza, who made virtue rest on the following of nature, or on the 'actual essence' of the agent, takes its true meaning—"whatever is is good".

§ 2. PHYSICAL METEMPIRIC.

So much for Physical Metaphysic. The present object is to show how, by a similar device to that which has regenerated Metaphysic, the advantages of the Physical Method may be extended even beyond Metaphysic, beyond experience altogether, to the unknowable region of Metempiric.

No doubt in all Metempirical hypotheses and discussions there is something unsatisfying to the scientific mind. Direct verification is impossible from the nature of the case (and here Physical Metempiric must differ from Physical Metaphysic where such verification is, partially at least, possible); and the indirect verification which rests on the necessity of certain particular Metempirical assumptions in order to make the universe, or experience, intelligible seems not only open to certain objections, which will be mentioned hereafter, but looks practically untenable in the face of the conflicting Metempirical systems which have

been based on it; for this looks as if what was intelligible to one man was not so to another. All this I fully admit, and the natural conclusion would be that of the Positivists, to avoid all speculations which transcend experience. But there is, on the other hand, one fact, an unreasonable and inexplicable fact it may be, but quite incontestable, and one that we cannot pass over. It is the fact that not one of us *does* leave such speculations alone, that there never lived a single human being who did not make Metempirical hypotheses, nay whose inner life and moral activity were not mainly guided by such hypotheses. Metempiric, therefore, whether logically justifiable or not, being practically inevitable, a form which every human mind uses in order to make its universe intelligible, I contend that it is of great importance to have the form made as reasonable as possible, and as consistent with our actual knowledge as we can make it. Only so can it be a help to us and not a hindrance.

If we be told that we have no right to say that the form which one man uses is more reasonable than that of another, there being no test common to the two, I can only answer that each man must take that form which, after due consideration, is found to fit his own intelligence, but that the most 'reasonable' will be that which best fits the common facts which are admitted by all as data, and that such reasonableness must be judged as in such a case as that of the Emission and Undulatory Hypotheses of Light, namely, by the judgment after argument of those who seem best competent to deal with the question. We can never see a light-wave, but we may well be brought to consider it a more reasonable hypothesis than that of a light-fluid.

If it be answered that no form can be reasonable because Metempirical hypotheses can never be expressed but in terms of experience, and can, therefore, never as expressed have any truth but of a symbolic and metaphorical nature; and that

the proper place in which to treat them is that science which deals with mental and moral fallacies and superstitious beliefs ; I reply that *if* there is any truth behind them, even symbolic expressions of it differ from one another in appropriateness, just as we feel that the blind man who described scarlet as like the sound of a trumpet was nearer the truth than if he had likened it to the piping of a flute or the droning of a bagpipe ; and that if there is *no* truth behind them, still, if they are inevitable, it is of importance to make them reasonable—that is, to see that they are so far as possible consistent, in the view of the normal human intellect, with truths that do exist.

But it has been said that consistency with known truths does not, in the case of Metempiric, make a theory even reasonable, for that the argument from known to unknown becomes here of no assignable value, seeing that we cannot at all estimate the relative extent of the knowable and unknowable regions. To this I answer that the unknowable region which we are compelled to assume is not different in nature from the knowable, in fact, its likeness is part of the assumption, it is only, as we shall see, an extension of the knowable beyond our individual knowledge ; hence the relations among its parts must be similar to those of the knowable. When we see two similar phenomena, and know the cause or reality behind the one, we have a *primâ facie* right to assume a similar unknown cause or reality behind the other. At any rate, this is the only possible argument which can afford us any guidance in the unknowable region ; if, therefore, we go there, as we do, it is reasonable to use it. If there is only one method which has any probability at all, we do right to use it, though we cannot exactly measure the amount of its probability.

Finally, I would urge that although we cannot know things outside experience as objects (for objects are inside our consciousness, that is, *in* experience), still, supposing that

noumena exist, it is possible for us to know something of their relations *to each other*, at any rate to this extent that such relations must correspond, if not be identical, with the relations among their phenomena. The language of Metempiric may thus be symbolical only; the translation of the physical symbols may be only into another set of symbols: still if the latter symbolism is accurate, we get at least some such resemblance to the reality as a photograph gives of a material object, or a parable of the truth which it half reveals. Nearer than this we can never get, for our Metempirical theories like all the rest are products of our organism, physical and psychical, and are seen through its forms. At best they are mere 'projections,' and perhaps not even on a flat surface. There is no harm in remembering this, quite the contrary; but it will never make men abandon Metempiric.

METEMPIRICAL DATA.

Metempirical speculation has been justified in the preceding section, for that, being universal and inevitable, it is well that it should be reasonable. What then are these Metempirical beliefs, common to all mankind from the lowest to the highest? For these must clearly be our data, and all we want for the present, is the undisputed fact of their existence; whether they are logically justifiable or not is another question, which we will not at present consider. The fact of their universal existence is the foundation on which this treatise rests, the datum from which it starts. What then are these beliefs? Clearly not anything akin to the elaborate Ontologies or Theologies which have distracted Humanity for centuries; these are mere aftergrowths of the Metempirical 'faculty' when once established, and none of them can claim universal belief. Rather we must turn to the fundamental articles common to all creeds, to the very simplest beliefs on which all Ontology and Theology rest;

the most rudimentary propositions, on which all men are agreed, concerning an existence beyond experience. Now I think that every one will admit, on reflection, that the simplest Metempirical assumption, and one made by every man, is that there is a Metempirical existence, that he and his own experience are not all that has ever existed. And the first and least that he assumes is Experience other than his own, other Consciousness than his, similar in nature but numerically distinct. It is this mere denial of Solipsism which is the fundamental basis of Metempiric; if any reader who has reached this point can honestly say that he believes that nothing exists, or has ever existed, but his own successive states of consciousness, he had better close the book at once.

There is a second very general belief, though in face of some Idealist philosophies, it cannot be called universal, viz., in the existence of Things-in-themselves, or some reality external to consciousness, underlying or rather producing in us the sensations and combinations of sensations, which we objectify as material things. To all men, I take it, who are not philosophers, and I almost dare add to all philosophers when not philosophising, some such assumption seems inevitable; what else, they think, can explain the persistence of objects, their permanent relations to each other (which are clearly not under our control) and the sameness of the universe to all observers? However, as this assumption, though practically universal, comes much later than that of 'Other Consciousness,' the one being the instinct of the child, and the other that of the man of science, and further, is perhaps not wholly unconquerable, it will be wise not to lay too much stress on it; yet it will be interesting, if we find hereafter, that it can be accounted for and justified by some deduction from the former, more fundamental assumption. If there be any other general Metaphysical beliefs, beside these two, that of 'Other Consciousness,' and, that of 'Things-in-them-

selves,' I think they will turn out on examination, to be either modifications of one of the two (such, as for instance, the very general belief as to the existence and attributes of God) or to be due to some misconception.

We conclude, therefore, that the assumption by each man of consciousness, other than his own, is the primary and only certain Metempirical datum. On this, therefore, any reasonable system of Metempiric must ultimately rest. Let us then begin with it.

CHAPTER III.

OTHER CONSCIOUSNESS.

THE belief in the existence of Consciousness other than their own seems, as has been said above, absolutely universal to all human beings. So deep is the conviction, whatever its justification, that it has become incorporated even into science; and although, as the strict view is maintainable and the scientific fact cannot, *quà* fact, be altered by metempirical associations, it would perhaps be better for science to disregard the latter, and leave them to a professed Metempiric. still there is no doubt that in practice any scientific fact, whether physical or metaphysical, is looked upon, and by men of science as much as by the rest of the world, not, as alone in strictness is possible, as a mere relation among the states of consciousness of the individual observer, but as a fact of experience in general. Yet when the belief is examined, surely nothing can be more clearly metempirical; it is in plain truth the mere flat assertion that there *is* a Metempirical, that *my* experience is not all. Every man who believes in the consciousness of his fellows—every man who uses the word ‘we’—is a Metempiric; and has an interest in ordering his metempirical speculations according to the most reasonable system that he can get hold of.

What, then, are the grounds on which this belief rests? Can it be logically justified? Now, to begin with, a proposition as to existence outside my experience, is *primâ facie* unprovable and unverifiable, and therefore strictly unknow-

able. I can verify only by my own states of consciousness, and I can know only relations among those states; and by no imaginable extension of my experience could it become, or at least be known by me to have become, the experience of another: to be known is to be a part of me, so that anything which is *ex hypothesi* not part of me cannot be known. To get over this difficulty, philosophers who think they can logically refute Solipsism, that is, by means of the laws of human consciousness get beyond that consciousness, have invented many arguments, some of which require consideration.

It is said that though the existence of other consciousness cannot be verified directly, yet it is an assumption necessary to make our experience intelligible,—a category as Prof. Caird says (*Phil. of Kant*, p. 482) by which alone we can make the external universe an intelligible object. I have already noticed the curious diversity of results to which this principle leads; but there are also defects inherent in itself. For even a category is only a logical form of my mind; no doubt it makes objects with the aid of the senses, but it can make no object of any validity beyond that of a mere concept of the individual subject except through the senses: it cannot therefore give any solidity or reality to a supersensible hypothesis. If in my picture which I call the universe I find it necessary to draw other men painting too, no doubt I make them painting with real paint, but it is my paint all the time; that part of my picture which depicts their pictures is in no way different from the rest of it, and does not go at all to prove their existence outside my picture. Again, the only ground on which we can extract evidence from experience at all is the assumption that it is *per se* intelligible; we can only know the relations of phenomena by assuming that they are knowable in their own nature: hence even on the supposition that experience is not completely intelligible in itself, still it could never tell us so, for in order that it may tell us any-

thing we must assume the contrary. Even if experience turn out to be full of contradictions (of which I am confident that there is no single example which does not arise simply from either ignorance or misconception), even if, as Zeno in old times and Herbart in modern have believed, such facts as motion and change are self-contradictions; even then, the only help we can bring is conceptions, the material of which all originally came from this same experience, and which have meaning only so far as they are part of it and bound up with it. Herbart's 'Intelligible Space'—and in fact his whole system—is a curious illustration of what comes when a man says that he cannot understand the universe as it is, that is, as seen in experience, but could understand it better if it were so and so, that is, in forms which he invents and imagines, and therefore that it must be *really* according to his construction, though phenomenally it is as we see it. If he had to make an 'intelligible' universe at the present day in the light of the fresh discoveries in Physical Science, he would make a very different one from that which was full of Caloricum and Electricum, and in which chemical union of atoms meant their complete interpenetration so as to occupy the same space.

Another argument to justify the belief in other consciousness is put forward by Professor Caird in his *Philosophy of Kant*. It is said that self-consciousness implies a power in thought of transcending self, and therefore an outside consciousness by which the finite self is limited; in other words, that "it contains the unity to which not merely the phenomena of inner experience, but also the phenomena of outer experience are referred" (p. 669; *cf.* p. 334); and that the highest individuality "is not merely the consciousness of a self in opposition to other things and beings, but also the consciousness of a self in relation to and unity with them" (p. 80). But the difficulty in this is, that if we are speaking of 'self' in the widest sense as the totality of Consciousness, we

do not know it as a whole at all, that is, in relation to something outside it, but only by the summation of its parts; the only 'self' we know is the self of the 'inner' life as opposed to the 'outer,' and this we know as one part of our consciousness in relation to another. Moreover, even if we could imagine our whole self as known in relation to other things, such relation and things would become at once part of our consciousness. The fact that "I apprehend myself as one in a world of individuals" is only possible if I have already made the metempirical assumption of the existence of other conscious individuals like myself; it can itself therefore be no ground for that assumption.

Again there is a somewhat similar view of other Hegelians (see Mr. Wallace's *Logic of Hegel*, p. 73), that we "discover Thought in Things" as their "real Essence," "in contra-distinction from that which is only thought by us." How can we "discover" any thought in them but that which we find, that is, which we think? And why should it have been there before we think it?

Again Mr. Shadworth Hodgson thinks that the existence of other minds can be "inferred" without transcending the individual consciousness, because they can be represented to the imagination though not presented (*Philosophy of Reflection*, i. 172). But if so, the same theory would apply to centaurs and chimeras. His illustrations of the "vortices of the ether, or the far side of moon" are inapplicable, for we may reasonably infer that of which we might be sensible by a suitable change of position in time or space, or by a hypothetical extension of our sensitive powers, but not that of which *ex hypothesi* sensation by us is impossible. It is not the fact (as he thinks) that "a perfect nerve communication between my brain and yours," would make any difference whatever, if you and I remained separate conscious Egos: if through any means your sensations became mine, not merely the doubles of mine, we should no longer be two but one. It

is this impossibility of passing from one mind to another, and thus of proving the hypothesis of other minds, that causes the apparent difficulty of the connexion of mind and matter, which, as we shall see, arises from the fact, that the two are taken as existing in different consciousnesses; the mere fact of the existence of that difficulty, together with the universal acceptance of that fact, shews at once the universality and the unproveability of the hypothesis of other minds.

There is again the view of Feuerbach that Love is a proof of the existence of beings outside our brain. "We feel not only stones and wood, we feel also feelings when we press the hands or lips of a feeling creature; we see not only mirror surfaces and coloured figures, but we look into the glance of man. Not the external then but also the internal, not only flesh but spirit, not only the thing but the Ego is an object of the senses, if not immediately at least mediately; if not with the vulgar untrained senses at least with the cultivated senses; if not with the eye of the anatomist or chemist at least with the eye of the philosopher" (quoted by Lange, *Hist. of Materialism*, ii. 252). This is clearly an appeal not to actual experience but to inferences from experience, which to "cultivated senses" have become organic, but which are clearly metempirical in origin. It is only the expression of a further result of this organic 'perception' of one human mind by another, when he goes on to say, that "the individual man by himself does not contain the nature of man in himself, either as a moral or as a thinking being. The nature of man is contained only in the community, in the unity of man with man—a unity, however, which rests only upon the reality of the distinction of I and Thou" (*ib.*, p. 255). Man does believe in the existence of his fellows, and his mind has been greatly modified by this belief; but this does not rationally prove the belief to be true.

Having shewn the weakness of the principal theoretical arguments in favour of this hypothesis of 'Other Conscious-

ness,' let us next ask how the belief arose; for though, as one is always being told, the history of a belief cannot affect its validity, it at least disposes of any argument that might be founded on the mere fact of its existence. Now the first suggestion of the belief which we are here considering, came no doubt from the observation of the curious metaphysical fact, which I have mentioned as the foundation of Physical Metaphysic, that of the intimate connexion of my experience as a whole, both receptive and active, with a certain definite portion of the external world, which I call my body, and the coincidence of many, and science, when it comes, says of *each*, of my conscious states with certain definite physical phenomena in that body, coupled with the further physical fact, that there are other portions of the external world formed and behaving towards the rest exactly in all respects as that portion which I call my body behaves, with the one exception that they are not bound up in the same peculiar way with my conscious series. These two facts taken together, naturally suggest the guess that bound up with each of the other bodies is a conscious series like that which I call 'my' experience. But unluckily this cannot be verified; and when we come to analyse its apparent plausibility, we are often told that this is really due only to an unproveable extension of the ordinary Physical law of causation to the Metaphysical fact above mentioned, whereby we infer not only that similar physical phenomena have similar physical antecedents, but are connected in similar ways with similar inner noumena. Now this criticism of the inference does not seem wholly correct, for the fact which is hypothetically extended, is not the ordinary physical causation of phenomena, but the other metaphysical fact of the connexion of our feelings and bodily movements, in which we consider the former, when taking the form of will, as more than the mere antecedent of the latter, in some way an efficient cause. It is really therefore not the extension of a phenomenal law

into the region of noumena, but only the extension of a noumenal fact beyond the limits of our own individual noumenon. No doubt this is not logically justifiable; but it seems to me in this way to come perhaps nearer justification than by any of the arguments of philosophers. We see one physical fact, bound up with a metaphysical or noumenal fact; we see another corresponding physical fact, and we believe that it also is bound up with a corresponding noumenal fact of which from the very nature of the case we can have no direct experience. This belief we may call an ultimate belief; we cannot theoretically justify it, but we cannot rid ourselves of it; and as all reasoning and thought must be based on ultimate beliefs, why should not this be one of them? But it will be said that the opposite of this belief is not as in the case of ultimate beliefs, inconceivable but only incredible: is it an answer to say that conceivability has no application to Metempirical facts, seeing that neither positive nor negative of any such can be conceived, for that would be to enter experience? At any rate, Solipsism, if not inconceivable, is in the highest degree incredible, and its denial is worked into man's inmost nature, and into the very course of evolution itself. For this belief of the observer in other beings than himself, is the means, and apparently the indispensable means, whereby social organisation is enabled to advance. It is only by it that Egoism, which is the sole spring of individual action and the basis of personal morality or ethic, takes to a sufficient extent the form of Altruism, which is the necessary condition of society, and the basis of Social Morality or Politic (in the old sense): and it is the business of the Politician or Social Moralist to co-operate with nature in this respect. So this belief in other minds, if not a proveable truth, seems at least in harmony with the course of nature, and in fact a duty to society, and it is hard to believe that any such should be founded on mere error and delusion. And in further support of this view,

that the natural origin and success of a belief justify its practical adoption, I may notice that the very basis of all inference from known fact to knowable, the belief that the future will resemble the past, is based really on no other ground than this, the natural suggestion of Association, whereby like phenomena suggest like sequels among phenomena. Why then should not a similar suggestion of nature be also valid, whereby like phenomena suggest like noumena? No doubt one can be directly verified and the other not, but is this decisive? The verification of practical success is the same in both.

I cannot therefore agree with Professor Clifford, who gives the following account of the belief ('Body and Mind,' *Lectures and Essays*, ii., 56):—"I have absolutely no means of perceiving your mind, I judge by analogy that it exists, and the instinct which leads me to come to that conclusion is the social instinct as it has been formed in me by generations during which men have lived together; and they could not have lived together unless they had gone upon that supposition." If this means that my social instinct is the ground of this belief, and that I feel that I could not live with other men as I do unless I believed they were conscious, and that I believe other men are and have been like me in this respect, this is unobjectionable, but is only a re-statement of my belief that other men exist like me, and therefore with a similar belief, and is no justification of such belief. If the last clause be meant as a justification of the belief, then it fails; for clearly I only know that men could not have lived together without this belief on the assumption that they are like me and conscious beings—the whole point at issue. If men be only automata their living together must be surely explicable in terms of physical law, without any hypothesis of their beliefs or suppositions, which, Professor Clifford would have been the first to admit, could not affect the train of physical facts. The social instinct

must be the result of the belief in other beings like ourselves, though it perhaps may be admitted that to man as he now is that instinct is organic. Even now, however, it is not in this form that the belief first appears in an individual. A child believes in its mother long before its "social instinct" is developed. I cannot, therefore, allow that Physical science supports or even *suggests* the hypothesis in question. In fact, the hypothesis is concerned with something outside the region of Physical science altogether. It is an extension beyond experience, not of a Physical but a Metaphysical fact. For I would include within the bounds of experience not only Physics but Metaphysics, Physics being exclusively confined to that portion of experience which we call the external world. The relation, therefore, of consciousness or experience as a whole to the external world or any portion of it is not a Physical but a Metaphysical fact, and this is the fact of which we have seen the hypothesis in question to be an extension—the existence of other minds being inferred from the actual relation of our own mind to our body, an extra-physical or metaphysical relation.

The conclusion, therefore, to which we are apparently obliged to come as to the belief we are considering, is that as experience cannot prove it, or give any evidence directly bearing on it, we must be content with asserting of it a subjective validity as an indispensable condition to our understanding the universe, a necessary complement of experience, without which the latter is unintelligible to our minds. In other words, we must take it either as an ultimate belief or as necessarily involved in some ultimate belief, such as might be the real distinction of self and not-self, homogeneous yet mutually limiting each other, or the necessary symmetry of the universe as to outer and inner, or the necessity of a real causation underlying the sequence of phenomena. But its principal justification is moral and practical: for, in fact, without it morality or virtue in its

popular sense would wholly cease to exist, and social action would be impracticable. Every word spoken assumes it ; the very fact of this or any book being written assumes it. For the purpose of this treatise, I shall, as I have said, *assume* it, both as inevitably existing as a form or condition not only of the intelligibility of the phenomenal world, but also of the possibility of moral action, and altruistic emotion, and, if so inevitable, as worthy of the best education which can be given it. My object, therefore, will be starting from it as a datum, to see where we are reasonably led by the use of the Physical Method. And in order to do this, we must take the datum in its simple form as originally given, not as elaborated or interpreted by subsequent speculation ; and then we must try the application of our method.

APPLICATION OF THE PHYSICAL METHOD.

What then is this simplest datum ? It may be thus expressed : Wherever I see phenomena similar to those which I know to be the symbols or concomitants of my own states of consciousness, I may take these not only as symbols, the examination of which may help me in understanding the genesis and connexion of my own consciousness, which is the sphere of Physical Metaphysic, but as the symbols and sign of a real consciousness other than mine behind them, and related to them as my conscious states are related to the similar phenomena in my body : in other words, the physical phenomena of consciousness, that is, phenomena similar to those which are the concomitants of consciousness in me, may be taken not only as symbols of my consciousness but as phenomena of consciousness other than mine. Now this statement of the hypothesis shews at once how in Metempirical speculation exactly the same method is available which has been found so successful in Metaphysic ; for the symbols remain the same, and can be studied as before

through Physical Science, it is only the retranslation that is modified. In Physical Metaphysics the symbols themselves, either real or imaginary, stand for real values, namely, my own conscious states; whereas in Physical Metempiric the values which they symbolise are themselves imaginary, namely, conscious states, *not mine*. In the latter, therefore, we must dispense with direct verifications.

Let us now proceed to inquire what are the main outlines of the system to which the Physical Method, using the latest discoveries of science, tends. Now the first of these scientific principles, and the most suggestive, is that mighty conception which proved of such help in Metaphysic—the great physical doctrine of Evolution. And in dealing with this, not only is our method here exactly the same as in the former case, but our former results are immediately applicable, except that they now become general instead of special to our own mind. All the principles, therefore, of Psychology and Psychogony which have been discovered by physical evidence can be applied at once to Metempiric, as true not only of any particular individual mind, but (so far as they do not depend on special organisation) of mind and consciousness in general. But we may now carry the method considerably further than before, for whereas when we cared only for results which could be verified by observation of our own consciousness, it was useless to carry our examination of the symbols farther back than the beginning of animal life (contenting ourselves with merely hinting that they might be carried indefinitely further), because beyond that point they took forms which did not exist in us, and which, therefore, could not be translated into terms of our conscious experience,—here, on the contrary, where direct verification is abandoned, and we wish to get a consistent theory even if we are unable to picture it to ourselves except by approximation and analogy, we are able and in fact bound to follow the physical evidence to its farthest limits.

Now in *Physical Ethics* I endeavoured to shew that if evolution be true, and nature be continuous, consciousness, if it exists at all outside us, must be ultimately in its elements a property of inanimate matter: the principal argument being that if the phenomena of consciousness be proved to be evolved from elemental physical forces we must reasonably hold that the consciousness which we associate with those phenomena, but which differs *toto caelo* from the phenomena themselves, and cannot possibly have come from them, they being in us, and it outside us, has followed a parallel evolution, and has also its elements associated with the ultimate physical elements; for otherwise we "can give no reason for the introduction of consciousness at one stage of the evolution of matter rather than at another. If a man believes in the existence of consciousness in any object that is not exactly identical with himself, he has no right to draw an arbitrary line at any particular degree of difference and to assert that within that line is consciousness, but without it none" (p. 112). "Either sensibility is a phase or product of matter or the law of cause and effect is broken" (p. 348); therefore, "if we believe the phenomena of vital action to be endowed with consciousness, we must hold a similar belief with respect to the same phenomena in other shapes, we must acknowledge in fact the universal consciousness of matter" (p. 350). This conclusion, however, the discussion there being Metaphysical only, was carefully not put as a Metempirical fact, but, on the contrary, only as a reasonable extension of the association of our own consciousness with bodies other than our own (p. 350), which enables us to extend the physical symbolism beyond human bodies to the limits of animal life, and even to the region of inanimate nature. It was, therefore, there only suggested as a method of working among symbols which were to be re-translated into terms of our own individual consciousness. But once grant that the Metempirical exists (which is our present position), and that the consciousness of others is no

longer a mere association of our own consciousness with other bodies (as it is to Metaphysic), but involves the assertion of the actual existence of consciousness not ours, and the doctrine falls at once into the form of a Metempirical theory, which though it may have no greater validity than its Metaphysical origin, certainly puts on a new dress. Now this doctrine of the Universality of Consciousness is no new discovery; on the contrary (as is partially shewn in *Physical Ethics*, App. iv.), it is one which is common in some shape or other to philosophers of most ages and most countries; but it has gained much more attention of late years owing to the wonderful advance of physiological science and the working out of the theory of Evolution. To myself it occurred as I have said in working out the doctrine of Ethic by the method of Evolution, and when once it occurred it seemed at once perfectly self-evident. In Germany, where the connexion between science and general conceptions of the universe is closer than elsewhere, this doctrine or something analogous to it has been for some time growing into shape, and is now widely adopted by men of science. In England, I am not aware of any clear statement or suggestion of the theory before *Physical Ethics*, which was published in 1869; but since then several thinkers have, and, from anything that appears, quite independently, reached the same or similar conclusions. The best known exposition of the doctrine of an all-pervading 'Mind-stuff' (as he called it) is by the late Professor Clifford in the articles on 'Body and Mind,' and 'The Nature of Things-in-themselves,' printed in his collected *Lectures and Essays*; and there are increasing indications that ideas of the kind are gaining foothold.* Henceforth, as soon as science has had time to sink into men's minds, I cannot but think that the belief will become part of the natural instinct of mankind, and at last be recognised as a necessary truth. No doubt, as

* See for instance a Lecture by Mr. Frankland, delivered in New Zealand, and partially reported in *Mind* No. XX.

long as the special-creation theory holds its ground, ordinary men feel no difficulty in the idea of consciousness being suddenly introduced into a material world, the existence and nature of which, previously to such introduction, they do not trouble themselves to define ; but whenever that belief gives way to the overwhelming evidence in favour of Evolution, it would seem impossible that at least such men as reflect that the phenomenal universe of objects is only a product of conscious experience, a work of thought and sensation, should not acknowledge as a self-evident proposition, that till there was consciousness there could have been no phenomena, and that it is therefore absurd to say that consciousness was a product, or appeared coincidently with a certain stage, of the evolution of phenomena. It would be as reasonable to say that light came from or coincided with some stage of the evolution of colours.

We have got, therefore, as the foundation of our system the principle that Consciousness is coextensive with Matter, or rather with the Motion of Matter. If the vibrations of our nerves 'mean' states of consciousness, and if these vibrations are the results, according to fixed physical laws, of other motions of matter, every motion being an integrant part of the mighty mechanism which we call the universe ; so must it be also with the states of consciousness which they symbolise : they also must be in some way the expression and result of other conscious states, not in the organism alone but running alongside the physical series of motions into the inanimate world, into the flux of forces which constitutes the physical universe ; they must be components of another conscious universe, of which the physical is only the sign and the phenomenon.

The laws of Evolution apply to both universes, and the two run alongside each other in unbroken course, a universe of material forces, and a universe of conscious states. What then, it will be asked, is the relation between these two ?

Are they two substantial existences running parallel by some Pre-established Harmony or kept in unison by the interferences of some higher power? Or again, are they joint attributes of some higher Unity which reveals itself concurrently in both, so that the two are only different aspects of the same development? We seem involved in the old Cartesian difficulty, and have to choose between Leibnitz and Spinoza. On turning, however, to the Physical Method, and reconsidering the steps whereby we have been brought to our present position, an entirely different answer seems to present itself. What was our datum? Simply the belief that behind certain physical bodies which we call men, there existed a consciousness like our own. Now the bodies in question are clearly objects in our mind; what then is the conscious series of which each of these bodies is to us the sign? Surely it is the man himself; just as we are our own conscious series. But if so, the whole thing is clear. The universe of matter is phenomenal, that of consciousness noumenal; the former exists as part of us, the latter exists in the same way as *we* exist; the former, therefore, is the Universe as it appears to us, the latter the Universe as it is in itself.

Here, therefore, we have not only arrived at a rational and systematic account of the meaning of our primary Metempirical hypothesis, by shewing that it points to a noumenal universe of which the physical in all its details is phenomenon, but we have reached incidentally an explanation of the second almost universal Metempirical speculation mentioned above, that as to the existence of Things-in-themselves. This now appears to be bound up in the reasonable interpretation of the primary hypothesis, so that one system solves both difficulties. It may be well before going farther to devote a few words to the origin of this hypothesis of Things-in-themselves and the arguments adduced in favour of it.

CHAPTER IV.

THINGS-IN-THEMSELVES.

THE hypothesis of Realism that Things exist not only as phenomena in us, but also in themselves, though we have come to see how it is really connected with the hypothesis of Other Consciousness, does not in the ordinary course of things spring from the same origin. It is naturally suggested, not by the development or extension of the idea of Self, but by the discovery of a Not-Self; not by the peculiar connexion of consciousness with the body, which seems to be its organ and to a great extent under its control, but rather by the perception of external objects over which our will has no control, and which seem to produce in us sensations as to which our will is powerless: this, together with the permanence of these objects and their independence of our movements, produces the instinctive feeling that there must be in these external objects, in order to produce their unity and stability, something which we feel is not in us, some Not-Self to hold together their multiform qualities into definite Things and to impress them on the Self; and this supposition is strongly reinforced when, on the adoption of the primary Metempirical assumption of Other Minds, we find that Things are not only persistent to our own consciousness, but have identical values (allowing for difference of spatial and other relations) to all individual minds. This leads to the idea of one object existing in itself in a definite part of space and producing phenomena in different minds. When men try to define the

nature of this noumenal object as distinct from its phenomena in themselves, they look upon this external absolute something, this Not-Self, which they often call Substance or Matter, as that of which the different phenomena or properties of the object are different attributes or different effects, a kind of permanent possibility, or potency, or power, of which phenomena are the effects on our senses: and this kind of view has even been adopted by Science herself, which recognises such an external power under the names of Force or Energy, treats it as an actually existing reality even when 'latent,' distinguishing it from motion which is only the product of its activity, and asserts of it that it is absolutely persistent and imperishable. Thus the conception of an external bond or principle of union among forces and qualities, which is Not-Self, seems the source of the notion of an extra-conscious reality whether it take the form of Things-in-themselves—Substance, Matter, Force, or Energy—some real existent whose existence is outside all consciousness and does not depend upon its being perceived. Now if this be the origin of the belief in Things-in-themselves, this belief seems originally to be a fallacy; for it involves, first, a false inference from a mental bond to an external bond independent of it (false, because it is argued that objective permanence, not being in *sensations*, cannot be a *mental* product), and then a further confusion between Mind or Self as the total conscious experience, and Mind or Self as the inner order of ideas or 'faint states,' the sequence and connexion of which seems wholly or to great extent within the control of our volition, as opposed to the outer order of Impressions or 'vivid states,' which are only indirectly in our power and that only to a limited extent. Taking this narrower sense of Mind or Self, feelings and thoughts are referred to it as a substance, and objects are referred to an external world apart from it and acting on it or at least mirrored in it; and then, by the confusion above noticed, objects come to be thought of as

outside Consciousness altogether, as having an existence 'in themselves,' which is of course unknowable, because knowledge is only of states of consciousness, but the assertion of which is nevertheless considered as required by experience to explain the 'inherence' or cohesion of qualities and the permanence of objects. But in truth objects are made out of feelings and their relations or sequences; and they are made by the ideal reproduction of primary sequences which have been often repeated, and which in many instances have become organic forms of the perceptive intelligence, that is, by the operation of Mind in the smaller sense; and even if the latter statement be disputable, it is clear that all objects must be wholly contained within Mind in the larger sense, or the total of Consciousness. The actual stages of the confusion seem to be these. In the early beginnings of the separation of 'Self' and 'Not-Self,' the *body* is identified with 'Self,' and therefore the external world is rightly considered outside 'Self,' and when afterwards the body is transferred to the external world, and 'Self' restricted to the Mind or Subject, the whole external world, now including the body, is still considered as Not-Self, that is (by a confusion of the two 'selves' rendered almost inevitable by the exclusion of the body from the inner 'self'), as existent outside consciousness; 'outside' losing its former meaning of externality in *space* and acquiring the new meaning of Noumenality. The same confusion of the two senses of 'Self' is at the bottom of the arguments which proceed upon the supposed necessity to self-knowledge of a distinct existence of 'Self' and 'Not-Self'. The whole Self is *not* known by distinction from anything outside it but only by summation. These arguments have, however, been already mentioned.

Then again, it is sometimes said, by plain men who are not metaphysicians, that our consciousness is in our bodies, while external things are clearly outside our bodies. Now no doubt consciousness as a whole, not only sensation but

thought, is intimately connected with the body, and in a sense, may be said to be located in it as a centre; but even so, external objects would be outside this body in space only, and space is a part or 'form' of consciousness. The peculiar relation of experience to a special part of itself does not throw the other parts out of it altogether. Our 'Empirical Ego,' or series of conscious states, looked at as an *object*, may be connected empirically with the body, but the Subject of which all existence is Object comprehends or is an aspect of everything which can be assigned as the condition or cause of any state of the Empirical Ego, or from which it can be distinguished. Thought and things are alike states of Consciousness. Still it cannot be denied that, in spite of all this, it does appear strange to us why certain phenomena acting at one particular point of space should be accompanied by a noumenal existence not objective like themselves to a mind but subjective in itself, and that this should not be the case with exactly similar phenomena elsewhere; and the sense of symmetry seems to require that we should assume the contrary. As physical objects, my body and other objects act and react on one another on equal terms, and I see no reason for any distinction between them; moreover, the only distinction which I experience is one which seems accidental to the universe, and to concern only my individual consciousness, not a quality of true and real existence, but merely a peculiarity connected with my subjectivity.

But after all, this is no *proof* of noumena; no asymmetry or one-sidedness of experience can ever enable us to get outside it; and in this sense, Idealism is irrefutable. Things-in-themselves cannot be proved. Of Kant's two Refutations of Idealism, which have formed the subject of recent philosophical discussion (*Mind*, No. XII., ff.) the only one really sound is that which proves the real existence of objects as the work of mind, and therefore *within* consciousness in the larger sense; the supposed proof of existence outside the

whole consciousness of noumena, so far as it is not an instance of the confusion above pointed out, is, as Professor Caird well shews, either a mere statement of his individual belief, a fact which "it never entered his head to doubt," or is intended as a "moral justification" only, grounded on the Critique of the Practical Reason. It stands therefore to Kant on exactly the same footing as has been shewn to be that of the primary hypothesis of Other Consciousness, and on that footing we must be content to take it.

Our theory has suggested the conclusion that this imagined 'not-self' is really one with the existence suggested by the extension of 'self,' and thus it has the apparent merit of reconciling seeming opposites, and reducing different theories to a simple and consistent whole. And it is interesting to remark, that the two doctrines are not really opposites even in their origin: for, as has been already hinted, the element of permanence among the flux of sensation is really nothing but our Ego, or unity of consciousness; and when sensations are made into objects, and projected outwards into an external world, the permanent bond which still accompanies them, and still to our imagination holds them together even when unperceived, comes really from Expectation or Association, that is, from a *mental* holding together, or, in other words, is only the reflection or ejection of our 'Ego,' the externalising of our conscious unity. For instance, the metaphysical or *a priori* proof of the Persistence of Matter or Force, is simply the re-assertion of the persistence of Consciousness, not the sentient Ego which sleeps, but the thinking Ego; we cannot think of annihilation or creation, hence force is persistent. Thus the idea of Not-Self really comes from an imagined copy of Self; this is a metaphysical fact; and it is a fact corroborative of the theory of Physical Metempiric which makes the Not-Self an actual copy or reduplication of Self. In truth a man can imagine only that which is of the nature of experience, of Self; hence the only possible Metempiric

to which he can assign any meaning, is the hypothetical reduplication of his 'Self,' or of some of its elements. Existence outside him must be inner to itself, as he is inner to himself.

Thus, taking the origin of this belief in Real Things, and the common ideas which occur in respect of it, we have had to conclude that the doctrine of Realism or Things-in-themselves cannot be proved, but must be taken to rest on the same footing as that of Other Consciousness. I ought, however, perhaps, not to leave the subject without examination of some of the attempts that have been made to prove Realism in philosophic form; and first of all, Mr. Spencer's proof of Transfigured Realism seems to call for criticism, but I hardly like to attempt this, because he says I do not understand it (*Psych.*, ii. 432 n). I can only say that since that criticism, I have re-read what he says, and to the best of my understanding, such as it is, the main argument still seems based upon a confusion, or rather a double confusion, between two senses of the words 'unconditioned' and 'objective'. As to the former, Mr. Spencer seems to me to confuse under it the two ideas which I have distinguished by the words 'Absolute' and 'Noumenal' respectively. He appears to prove "our consciousness of the unconditioned," by the "unconditioned consciousness, or raw material of thought, to which in thinking we give definite forms" (*First Principles*, 3rd ed., p. 96: see also pp. 161 ff.). Now, assuming that "unconditioned consciousness" is consciousness of something, and that the something is "the unconditioned" (both of which seem open to question), at any rate, the word 'unconditioned' ought to have the same meaning in the conclusion as it has in the premiss: but in the premiss it means unconditioned *in* consciousness, undifferentiated, absolute, while in the conclusion (if it is to be a proof of Realism) it must mean unconditioned *by* consciousness, noumenal. But how can an absolute material of relations

in consciousness prove the existence of something out of consciousness altogether? Granted that "the assertion that our knowledge is Relative, involves the assertion that there exists a Non-relative," we cannot assert that our knowledge is relative to something *out of consciousness*, or (what comes to the same thing) that our consciousness as a whole is relative, without assuming the truth of Realism: this, indeed, Mr. Spencer himself, *alio intuitu*, very clearly shews (*Psych.*, i. 208); but if so, to prove Realism from such an assertion is a clear *petitio principii*. It is like the common device for proving noumenal existence by calling the world as we know it *phenomenal*. To get from consciousness to something outside it, involves a *salto mortale* from whichever end we 'take off'; whether like the Neo-Kantians from its highest development in Thought, or like Mr. Spencer, from its rawest material in Feeling.

The second confusion to which I referred is in connexion with the word 'objective,' which Mr. Spencer curiously identifies with noumenal, into which meaning it, of course, carries its "extrinsic and intrinsic connotations," its associations with ordinary 'objects' which, so far from being unknowable, are the only things known. At one time we find Subject and Object meaning "two aggregates of conscious states"; at another time they are the "principles of continuity," or "substrata" underlying these respective aggregates. Again they are spoken of, in the Kantian sense, not as elements of existence but as factors of knowledge, so that perceptions are the "effects of one on the other," and "consciousness is produced by the co-operation of the two" (*Psych.*, ii. 499). We start with the distinction of faint and vivid states which Mr. Spencer identifies with that of Self and Not-Self, and also (wrongly as it seems to me) with that between Subject and Object. Now this distinction or antithesis which he says is "never to be transcended while consciousness lasts" (*Psych.*, i. 627), is clearly within consciousness, or Self in the

larger sense, and is transcended by himself when he shews its genesis in Evolution ; therefore, the "principles of continuity" which bind together Ego and Non-Ego must also be within consciousness, and even if we find that "to the principle of continuity manifested in the Non-Ego there inevitably clings a nascent consciousness of force, akin to the force evolved by the principle of continuity in the Ego" (*Psych.*, ii. 488), that only shews that the two parts of consciousness are ultimately referred to the same binding principle as we have already noticed ; it gives us no "consciousness of existence beyond the limits of consciousness" (*ib.*) ; but only an idea that the principle of the faint states extends to the vivid. How can this possibly result in "the conception of the two aggregates as independent existences" (*ib.*, 493), one *in* consciousness and the other *out* of it ? How can it be any warrant for the conclusion that "feelings have antecedents out of ourselves" (*ib.*, i. 209) ? As to the argument that "the form of objective action which we call sound" (vibration) "has not the slightest kinship in nature to the sensation of sound which it arouses in us," and that "we are then brought to the conclusion that what we are conscious of as properties of matter, are but subjective affections produced by objective agencies that are unknown and unknowable" (*ib.*, i. 206),—I can only say that vibration is no more "objective," in the sense of being outside consciousness than sound is ; it is only a visual or tactual object instead of an audible. "Sound," he says elsewhere (*ib.*, ii. 237),—and this sentence brings out well the fallacy which I am trying to reveal,—"we can very well conceive as consisting in itself of vibrations, having no likeness whatever to the sensations they produce." But a sentence on the next page shews how much this means—"the liberty we have to think of light, sound, heat, &c., as in themselves different from our sensations of them, is due to our possession of other sensations by which to symbolise them—namely, those of mechanical force—that is, in terms of our muscular sensa-

tions;" and then he shews that "to think of mechanical force itself as different from our impressions of it" is "utterly beyond our power". In other words, we may if we like call one of our sensations the 'objective' cause of another, but if we try to get outside our sensations altogether we cannot. And if it be asked what binds together the various sensations referred to to a common object, unless there be some single noumenal 'power' producing both, I answer that Experience as represented in Thought binds them together, and that any supposed 'power' is only an idea in my mind. Therefore, the discovery that "our subjective consciousness is no measure of objective existence," has either no bearing on the question of Realism or is impossible; for how, may I ask, can such a discovery be made unless we can measure, or at least know, 'objective existence,' and how can we measure or know it unless it is part of consciousness? The same remark applies to the physiological argument—that consciousness depends on *tremors*, which are not the least like the material object which causes them, and that this object is at least *outside* them: the material object and the tremors, and the fact of their dissimilarity and externality in space, are all inside the consciousness of the observer; they can have no other meaning but by a Metempirical assumption, which, therefore, they cannot prove. The relation of physical forces to the animal organism, whatever it be, can have no bearing on the question of a supposed relation of Force *in itself* to the thinking consciousness. This distinction, therefore, of Subject and Object which Mr. Spencer makes, and which leads him to the two unknowables of "the Power manifested to us as Motion" and "the Substance of Mind" (*ib.*, i. 159), which he has to join from the outside by the consideration that the same law of Evolution applies to both of them (*ib.*, 627), is really a distinction wholly within consciousness. The two "unknowables" are only the raw material of consciousness—Feeling—of which Matter and Mind are different combina-

tions, and they are not unknowable in the sense of being outside consciousness or *noumenal*, but only as being unrelated or *absolute*. Consciousness cannot come from an external object operating on an internal subject, independent of it, because object means nothing except to subject, and subject nothing except to object.

The remainder of Mr. Spencer's argument seems a mere return to the 'common sense' by which Reid attempted to vanquish the logic of Hume: it consists in an appeal to the earliest, simplest, most immediate beliefs of ordinary men (either as obtained by inquiry or as stored in language), in preference to the elaborate reasoning of Metaphysic. Now we have already considered these, and seen what they come to; but supposing we were wrong, such an appeal, even if sound in principle (and, from Mr. Spencer's point of view, I do not see what warrant he has for his Universal Postulate except as applied to *phenomena*), seems here either practically useless, from the impossibility of making ordinary men understand the point (certainly the imaginary 'reader' of *Psych.*, ii. 43, does not understand it, but confuses outside-ness of things in space with outsideness of space and all that it contains to consciousness), or to lead, if it leads to anything, to 'Crude Realism,' which Mr. Spencer repudiates, but which seems to me to be pretty much the same theory as Idealism unphilosophically expressed. What the man sees is the book, the actual external object: there the Crude Realist and the Idealist agree, for the latter does not, as Mr. Spencer seems to think (*ib.*, 373), hold that an object is always recognised as sensation, but only that it is so recognisable; but Mr. Spencer does *not* agree, for he says that what the man sees is not the book but "a subjective affection produced by objective agencies which are unknown or unknowable". If this is an "indissoluble cohesion" in Mr. Spencer's consciousness, I can only say it is not so in mine: and I think he will hardly contend that it is so to ordinary

men. At any rate it is impossible to establish from consciousness anything *out of consciousness altogether*. It seems to me that he is here setting up reasoning against simple and immediate consciousness, and that the 'Transfiguration' which he proposes is condemned by his own principle. If any reader wishes further to see the real weakness of Mr. Spencer's arguments in this respect, I would refer him to Professor Green's Examination of them in the *Contemporary Review* for Dec., 1877 ; March, 1878 ; and Jan., 1881.

I ought, however, to notice that in a reply to Professor Green contained in the *Contemporary Review* for February, 1881, Mr. Spencer, replying to Professor Green's criticism on his own doctrine that if Idealism be true Evolution is a dream, says that in his view Evolution is the result of the universal redistribution of matter and motion which is, and ever has been, going on—so that as in astronomic and geologic ages there was no life, and still less, consciousness, therefore there is "involved in the theory of Evolution a mode of being independent of and antecedent to the mode of being which we now call Consciousness". Hence he admits that Evolution is a dream, if it be true either that existence is only the sum of ideas or that objects exist only in correlation with the subject. Now he denies both of these: there is a real existence out of thought, and the object has an "independent reality" apart from the subject. He wholly denies that the object is nothing without the subject. Surely at any rate this is a very curious use of the word 'object' ; clearly nothing can exist *as* an object, except to a subject, though of course there may be some external condition, *not* an object, which by union with internal conditions makes the object. What he really means is a Noumenon. This he refuses to identify with Consciousness, which, he says, is inside the world as one body is inside another ; and yet he confesses that it is impossible to avoid using the expression "states of consciousness" for what he elsewhere calls "mani-

festations of existence" (which is just what they are *not*, for 'manifestation' is only a translation of 'phenomenon'), as "a name by which to distinguish this or that form of being, as an undeveloped receptivity would become aware of it while yet self and not-self were undistinguished". The doctrine of Objective Reality seems in this view to fade into the doctrine not of an independent existence of the object (though he is stout in asserting that this is what he *does* mean), but of a mode of existence underlying the external factor of the object which, while refusing to identify it with consciousness in the developed sense, he evidently is inclined to connect with consciousness in a larger sense. Thus the independence of the object takes a more rational form, though even for this form he does not give, so far as I see, any argument or evidence better than the rest of us find in the fact that we irresistibly believe it to be true.

I need hardly speak of the Reasoned Realism of Lewes, "because it affirms the reality of what is given in Feeling" (*Problems*, i. 177); "all we can know of the external is what we have felt or might feel" (p. 178). The reality of an external existence, a Not-Self, "the pure Existence, the ultimate Reality, believed by all except Idealists to *exist* independently, though only known under subjective conditions" (ii. 124) is a fact of Feeling and ultimate. Philosophy cannot explain it—"Objective factors (not otherwise knowable) existed as permanent possibilities which might become real when combined with subjective factors" (ii. 14). But a Not-Self given *in* consciousness must be *in* it; consciousness cannot contain 'facts' about something outside it altogether, and if it seems to contain such a fact, it must be that the 'internal Self' and the 'external Not-Self,' are only sub-divisions of the total sum of existence *in* consciousness. If he knows, as he says he does, "the manner in which the two are combined in Feeling and Thought" (p. 179), and if anything which is not verifiable by direct or indirect reduction to sensation is

unknowable (i. 30), clearly the manner in which the Self and Not-Self are combined, must be capable of such reduction. So far this is mere Idealism. The only difficulty is that though Mr. Lewes "gets rid of the *Ding-an-sich*, or noumenon, as a phantasm that has no existence for us, consequently cannot come within our perceptions, and is therefore altogether banished from the sphere of knowledge" (i. 183), he somehow cannot rid himself of the notion which he calls his starting-point, "that the external world exists and *among* the modes of its existence is the one we perceive". But this "otherness of relation," he agrees is unknowable, "and though the Reasoned Realism of this work denies altogether the assumed distinction of noumenon and phenomenon," perhaps 'noumena,' may conveniently be taken to "stand for things in their relations to other forms of sentience (if there are such) than our own, and phenomena to stand for things in any conceivable relations to sentience like our own" (i. 182). If, however, a thing is to be "*capable* of other relations" (ii. 45), to other consciousnesses, surely the thing must be something in itself, there must be some term outside all these consciousnesses which is the other end of all the relations and binds them together: otherwise what is the meaning of *its* relations, *its* modes of existence? This idea of "otherness of relation" seems very confused, for he regards Perception as the assimilation of the Object by the Subject, in the same way as Nutrition is the assimilation of the Medium by the Organism (i. 189): which looks as if the object were really something substantial, not a mere relation. Yet again, at the bottom of the same page, we read: "The Subject is inseparable from the Object, in any real sense; is only separable ideally"; though "this does not of course exclude the possibility of the external factor having *another* existence in relation to *other* factors; all that can be legitimately affirmed is, that this particular thing, in this particular relation, is what it is in this relation, *i.e.*, what it is felt to be".

The fact is, that this "otherness of relation" is a thoroughly Metempirical hypothesis, which he should have driven far away like the Thing-in-itself, which is the only mode of giving it a reasonable shape. "What we mean by saying that a thing is real, simply amounts to this; it will always in such or such relations have such or such modes of existence, and in all similar relations similar modes" (i. 183). In other words, the thing really is to me as felt; "its objective existence is to each what it is felt to be" (i. 191); "the object thus felt exists precisely *as* it is felt; existing for us in Feeling, its reality is that we feel" (*ib.*, 192). This is logically very defensible, but this is Idealism not Realism. Mr. Lewes' sense of 'Real' may be a defensible one, though it seems hard to combine with his statement a few pages later (p. 201) that the world is to each man as it affects him; to each a different world. But it is not the technical sense which the word 'Realism' has in this controversy, and Spencer and Helmholtz are more right, or at any rate, are truer Realists, when they allow a Noumenon, yet treat it as Unknowable, perception being symbolical only. But he gets back to Realism, for he cannot make out how, if there is nothing external to consciousness and sensibility, Psychogony can trace the evolution of sensibility in the organic world (i. 185), and cannot see through "the original fact given to all, that of an external reality present in Feeling" (p. 181). How instructive this is as to the truth of our position that Realism is unprovable and metempirical, that the greatest anti-metempiric cannot escape from an adherence to it under the guise of a primary datum of Feeling.

Again, it has been by some supposed that the scientific doctrine of the Conservation of Energy, or the Persistence of Force, is a warrant for the existence of some noumenal reality, for that the only force or energy we know phenomenally is actual motion, 'latent' or virtual energy having no phenomenal manifestation, therefore, the energy which is persistent

cannot be phenomenal; but this seems to me a fallacy. The scientific doctrine in question is really contained in the fundamental scientific postulate of Uniformity of Causation, or rather contains it, for the former is merely the statement that a motion or force cannot begin or end in nothing, whereas, the latter implies also, that the same force always ends in the same thing; as to 'virtual energy,' that is only the form which the postulate takes as applied to the phenomena of antagonist forces. Take for instance a pendulum: if causation is uniform, the 'force' or 'energy' contained in the pendulum at its lowest point must be somehow contained in it at its highest point (the one being the effect or redistribution of the other), but this is often inaccurately expressed by saying, it is there as virtual, or latent, or potential, the more accurate name for it being, 'energy of position': but this 'potentiality,' is a potentiality of phenomena only, and has itself phenomenal manifestation (in the position of the body possessing it): otherwise it could not have any scientific evidence in its favour. So again, the Equality of Action and Reaction is only a phenomenal law. Indeed, every principle which science can either prove or disprove, must be purely phenomenal, and possibly the product of our mind. However well, therefore, the doctrine of Persistent Force fits in with the suggestion of its having a noumenal existence, it cannot, as a doctrine of science, be regarded as any proof of the latter theory. The latter theory, if established, would throw a new light on Science and double its meaning, but Science can give no help to it. Before we can use the Persistence of Force to prove any Metempirical Existence, we must clearly *assume* that it holds outside experience; hence the *naiveté* of such an argument as that of Mr. Spencer's to prove a noumenal or 'objective' source of the phenomenal relation of Difference:—"That there is something beyond consciousness, to which it is due is an inevitable conclusion; since to think otherwise, is to think

of change taking place without an antecedent" (*Psychology*, i. 227). This is, indeed, a short method with Idealists.

Another argument for the existence of Things-in-themselves is that the only alternative is that they exist only in our consciousness, and that this is disproved by the fact that the universe cannot be constructed *a priori* and is not completely intelligible; that there are ultimate properties of matter and motion which we know only as data of experience, and which we cannot derive from the nature of consciousness. Now this is at most destructive of the individualist Idealism which derives the universe from each man's own mind, but is no answer to the Idealism which acknowledges a universal Mind or Thought which is only partially present in each of us, and which in its completeness is the condition of objective existence, for we cannot say that to thought in general the universe is not *a priori*; in other words, we cannot say that if we had complete knowledge of the facts as to matter and motion we should not recognise their logical necessity. The fact that the universe is to us not completely intelligible probably shows not that its existence is independent of intelligence, but that we are not completely intelligent. If we do not see the reason for everything, that is no proof that the reason does not exist. The something which seems to us to be 'given,' and which made Kant leave the Thing-in-itself as the source or cause of sensations in us, may turn out to be after all not given *to* but *by* intelligence, only after a fashion that our intelligence does not comprehend, or by a 'faculty' which in us has not attained self-consciousness. The argument therefore is one rather in favour of the existence of other minds than ours than of Things-in-themselves as ordinarily understood, and can lead to the latter (if at all) only through the former.

Our verdict, therefore, on the arguments for Things-in-themselves must be 'not proven': we cannot rise higher than what Hamilton calls 'Hypothetical Realism,' or if we

accept 'Realism' as an 'ultimate belief' we cannot pretend that its 'cohesion' is at all indissoluble. Knowledge, as Mr. Lewes remarks, is a classification of virtual feelings, and to each man the only knowable is his own feelings. It seems rather a consciousness of imperfection, a relativity or limit in our knowledge which leads to the conclusion of a higher noumenal reality beyond, an absolute, a beyond the limit; a feeling that the contrast of Reason and Sense and their necessary combination in knowledge argues the phenomenal nature of that knowledge and the existence of something more real outside it, a solid of which we know only the projection on our 'tabula'; a thought which strives to make experience as a whole an object related to other existence; a demand for an absolute whole composed (if at all) of absolutely simple elements; a world independent of the limitations of time and space such as sense can never supply. This is of course no argument, for thought is as subjective as sense from which it is derived; and it is impossible from even a necessity of consciousness to prove the existence of something out of consciousness, for inconceivability can only be a test of truth where conception is in the nature of things possible. The idea of a noumenal universe is rather an 'ideal,' a problematical or regulative conception, a symbolic form in which we express one of our ultimate beliefs, and place before us the universe in an intelligible shape. We have seen how intimately connected it is with the belief in 'Other Consciousness'.

From our intercourse with other men we discover that the different objects of the physical universe appear to them the same as they do to us, so that we at once form the conception of some one thing outside percipient intelligence, which bears the same relation to all, and so allows the production of what Professor Clifford calls the 'Social Object' in which he considers the only true objectivity to consist. Thus this belief in an object outside all subjects, or as it would be more reasonably

put, in a common objective factor to all percipients, is in its genesis intimately bound up with the belief in a plurality of percipients. We have now shown that it is really only a further extension of the same belief.

Henceforth we shall assume them both ; if not as verifiable or in the strict sense knowable, yet as practically inevitable and as indispensable to any intelligible explanation of the whole of experience.

CHAPTER V.

THE ATOMIC THEORY.

WE have been led by the foregoing considerations to the conception of a noumenal universe of conscious states underlying and corresponding to the phenomenal universe of material motions, the mutual connexion of the different parts or terms of the former being entirely parallel with that of the physical motions. Thus we have been able to sketch in the most general outline the form of a general system of Metempiric.

The weakness of this conception is its vagueness. In order to give it a more definite form, we must make further inquiry into the nature and constitution of this material consciousness and the mutual relations of its parts. For information on this point, the Physical Method directs us to the region of Molecular Physics, and the facts thereby established as to the ultimate constitution of Matter. Now I take it that it is a clear result of the recent researches in Chemistry, and of what is often called in a special sense Physics, that the principle of Atomism is an established fact, at least to this extent, that whatever be the qualities of material 'atoms,' and whether there be many ultimate kinds of them or only one, still it is certain that material bodies are composed of certain ultimate, or provisionally ultimate particles, which if not otherwise definable are known and may be described as centres of Force or of Motion. How these centres have arisen (if at all) is not now in question: it is sufficient, at

any rate for our next step, to rest on the fact of their existence. How then is our system of Metempiric to incorporate this fact of the atomic constitution of matter? Clearly we must imagine each material atom, which phenomenally is a centre of movement, as noumenally a centre of Consciousness. Such a centre of consciousness, it will perhaps be best, in order to avoid the invention of new and strange terms, to call a Monad; but it must be remembered that by this word nothing more will be meant than the noumenal centre of consciousness of which the phenomenal centre of force, which we call an atom, is phenomenon.

Now the states of consciousness of such a monad must be imagined to correspond with the forces impressed on the atom, that is to say, with the changes of motion caused in it by external forces, which external forces are themselves (if we neglect for the present the conception of immaterial or uncentralised force, as in a continuous ether) only changes of motion in other atoms, that is, noumenally, states of consciousness in other monads. Thus the conscious states of different monads must be held to affect each other according to rules corresponding exactly to those ways in which the forces of different atoms affect each other: as active, corresponding to expressed force, we must imagine them as rudimentary 'Will'; as passive, corresponding to impressed force, they must be regarded as rudimentary 'Sensation'; though of course such will and sensation are not perceived as such, perception being impossible, as will be seen later, except to an organised monad. Nor indeed can in the case of a simple monad the impression be separated from the expression, for the ideas 'will' and 'sensation' seem only distinguishable in an organised monad, and come only from experience of their respective effects and antecedents among phenomena; whereas in a simple monad there is only a single state, the impressed state, which, without internal change or redistribution (as in the case of an organism), is at once re-expressed according to the

laws which regulate the sequence of such states between one monad and another. Now each of these successive states is the 'phenomenon' of the one preceding it in the causal, or what we may call the cosmic, series, and the 'noumenon' of which the one succeeding it is 'phenomenon': the whole series therefore, as well as each term of it, is both noumenal and phenomenal; for each term is noumenal in itself and in relation to its successors, phenomenal in relation to its predecessors. To become a phenomenal 'object' the phenomena must fall on a perceptive intelligence; an atom therefore is the sum of the phenomena produced by a monad (either directly or indirectly through phenomena of other monads also produced by it) in a second, and that a perceptive, monad, and objectified according to a process to be hereafter explained. As an atom the monad exists in other perceptive monads, as an object or possible object, by virtue of its activity as a centre of force: as a monad it exists in itself as a series of passive states impressed from without and of active feelings of expression, that is, as a centre of consciousness. At each centre action and reaction are equal (for no force can be lost), and consciousness takes place at their meeting; the force or will expressed from one is impressed and re-expressed from one to another *ad infinitum*, and theoretically the course of such a series is traceable without limit, though as a matter of fact different cosmic series passing through the same monad modify each other so as to merge both in a resultant in which the original components are henceforth not perceptibly separate.

Thus we arrive at the conception that the universe in itself consists of an infinite number of monads or centres of consciousness, mutually affecting each other according to fixed laws; that is to say, each monad is continually changing its states, such changes being interpretable only as the results of previous changes in itself and in others and as the causes of subsequent changes in itself and in others, in such manner

that the same combinations of changes in centres always produce and are followed by the same changes in each centre, and consequently also by the same succeeding combinations of changes.

CHAPTER VI.

MONADS.

WE may now make a few further inquiries into the nature and relations of Monads, so far as we can infer them from the scientific theories about Atoms. For we have seen that a Monad is only the inner reality of that which we know as an Atom.

Now to begin with, it is important to notice that the modern doctrine of Atomism, unlike any of the older forms, admits the conception of atoms as unextended centres of force, not merely as indefinitely small pieces of extended matter. An atom of course must not be confounded with a molecule; the latter is not single, but a congeries of atoms more or less complex; it is either in the case of a compound substance the smallest particle of the compound which can exist, further diminution involving resolution into the elements of which it is compounded; or in the case of some substances still considered elementary which, when in a free or gaseous state, associate their atoms in groups of two or three or even more, the 'molecule' is the name given to one of these groups, and points to an affinity between the different atoms of one substance for each other. For instance, a molecule of hydrogen is composed of two atoms of hydrogen (a hydride of hydrogen), a molecule of phosphorus of four atoms of phosphorus, and a molecule of sulphur at 500° of six atoms of sulphur. Now molecules, whether formed of one or more *kinds* of atoms, being compound bodies, have of

course a definite size and shape. Nay, their size has been actually measured—some fraction of a millionth of a millimetre; and the number of them in, for instance, a cubic centimetre of air counted—twenty-one trillions of molecules. Now as to how far the different *atoms* of the so-called chemical 'elements' are themselves molecules (in the sense used above) and composed of still simpler atoms, and they perhaps in succession of still simpler, is not now in question; what is necessary to notice is that the ultimate atoms, whether all alike or not, must be conceived as mere unextended centres of the forces which they display; for the only phenomenal manifestation of the atoms is their forces, and forces can ultimately be only conceived as united by intersection in the same point. Moreover this view is confirmed by the consideration that a monad as a mere centre of consciousness could not produce, so far as can be seen, any phenomenon of the nature of extension, the very essence of which implies co-existence.

All the facts which seem to demand for atoms definite size and shape can be explained on the supposition of the composite nature of such atoms. The extension of matter is due only to the coexistence of points; matter is thus a compound, and extension belongs to it only as such. Then again Redtenbacher's demand for extended atoms or 'dynamids,' from the fact of their unequal elasticity in different directions, may be easily satisfied on the assumption that such atoms are really molecules possessing an axial form and composed of subatoms. The ultimate atoms cannot possibly have either size or shape in the ordinary sense, for they have no extension whatever, unless their actions on others are taken as part of them; in the latter view each atom fills the whole universe. No doubt there are physicists, like Clerk Maxwell, who say that "no arrangement of centres of force, however complicated, could account for the fact that a body requires a certain force to produce in it a certain change of motion, which fact we

explain by saying that the body has a certain measurable mass. No part of this mass can be due to the existence of the supposed centres of force" (*Theory of Heat*, 1871, p. 86). But why not? Surely resistance to extraneous force is force: witness its name '*vis inertia*'. Mass simply means the *number* of atoms, and therefore no doubt is the "sole unalterable property of matter"; and the resistance of a body to a moving force is simply a statement of the fact that the action and reaction of bodies is mutual and not all on one side.

Mr. Lewes makes another objection to the doctrine of mere centres of force, for he says "it evades the fundamental fact in our sensible experience". "It presents us with an action which has no agent" (*Problems* ii. 320). But not only is this a misstatement for the centre is clearly the agent, but it comes very badly from Mr. Lewes who is perpetually saying that things are only relations, and even Things-in-themselves are only otherness of relation.

An atom, therefore, in this sense is not strictly a piece of matter, for matter implies extension. Matter is in fact the phenomenon of coexistent atoms. This view that a single atom is not strictly speaking material, seems to solve the puzzle as to the infinite divisibility of matter. Matter is not the ultimate element of phenomena, it is a compound, like molecules as compared with atoms; and when it is divided below a certain limit it ceases to be matter, just as if the molecule of water be still further divided it ceases to be water. The ultimate constituents of phenomena are centres of force or motion, the two being in fact the same, except that in the case of force there is added to the visual element an association of the muscular sense or feeling of effort, so that force is motion plus a metempirical assumption, a supposed reality of which motion is the phenomenal product. Matter is a compound of forces, or rather of centres of forces, and when further divided ceases to be matter. As to the cognate difficulty of the divisibility of space, it need only be said that

space, like time, is not divisible at all, for it is continuous; all we can say of it is that it is the form by which we are enabled to hold together, and keep discrete, simultaneous phenomena which do not to our perception or thought absolutely coincide. We shall have to return to the question of space hereafter.

The next point worth notice is that (if we neglect for the moment the possibility of an origin of atoms and monads from some earlier uncentralised form of consciousness or force) each atom or monad, which we have seen to be itself unextended in space (though of course its phenomena penetrate all space), is in time eternal and unchangeable. Every atom is absolutely persistent, and remains the same in nature, whatever its position; if at any moment brought back to a relative position which it has occupied before, it manifests exactly the same activity as on the former occasion. So too a monad must be eternal and unchangeable, except in its relations to others, that is, in its successive states of consciousness which correspond to varying motions of its atom. Thus a monad remains the same though its conscious life may go through very great vicissitudes: for instance, it may be transferred from a quiet uneventful life, to be the centre of an organism where its motions or conscious states are rendered exceedingly complex through the influence of the mechanism by which it is surrounded, and then back again to the old life where its relations are simple and uncoordinated. In one sense therefore each monad is immortal; or at least it must last as long as the persistence of matter: but memory and conscious personality are functions of an organism, and are evidently mortal, ending with the cessation of the conditions and relations of which the organised body is phenomenon.

It follows from what has been said that evolution (and indeed temporal events generally) can not affect the nature of monads, but only their mutual relations: development is the organisation on the one hand of force and motion, on the

other of conscious states. If we take all monads as originally alike (a point to which we shall recur), the Ego of a philosopher differs from a monad of hydrogen, only by its collocation with an attendant organism of subservient monads, which, catching a great variety of incoming influences, coordinates and prepares them in such fashion with relics or reproductions of old influences that, when passed on to the central monad, they possess in an extraordinary degree, complexity and unity, variety and definiteness, and all the other qualities which distinguish intelligent thought from the simpler rudiments of consciousness. Thus a mere centre of the most elementary states becomes a thinking being. A monad has in itself only one property or quality (if such it can be called at all), that of existence or being; it is the union of states of consciousness, and these depend on the interaction of many monads. Similarly an atom is nothing but the union of forces, which again depend wholly on the mutual relations of many atoms. All that is predicable of either monad or atom is therefore relation; as indeed all objective existence depends on relations.

There is another question which naturally arises with regard to these original monads, 'Are they all alike, or do they differ in their qualities or modes of reaction?' Now at first sight the former of these is the simpler supposition, and *a priori* the preferable one. It has been thought, however, to present sundry difficulties. Formerly in the days of the old atomists, of Epicurus, of Gassendi, of Boyle, and even of Herbart, it seemed impossible to conceive that the great varieties of properties in different substances could be produced by a mere difference in the arrangement of ultimate particles, unless these particles too had some special nature of their own. Hence, where qualitative difference was not required, variety of size, figure and weight was demanded, as by the early atomists and Epicurus, Lucretius, Gassendi and Boyle; and Herbart required ultimate variety

of quality. This difficulty has, however, now disappeared, partly on account of the discovery of attraction, or affinity, and repulsion, or heat, which did away with the necessity of rough surfaces and hooks for holding atoms together, and partly in view of such phenomena as those of isomerism, dimorphism, and of the many reductions which modern chemistry has made of chemical qualities to physical arrangement. If bodies composed of the same elements in the same proportions may take different crystalline forms, and may have chemical and physical properties wholly different, it is evident that atomic arrangement is quite sufficient to account for the diversities of chemical substances. For instance, it is said that the hypothesis of the ultimate homogeneity of atoms involves the doctrine that the various 'atoms' of the present 'elements' are really molecules and only different arrangements in number and position of the ultimate atoms, and that it becomes impossible on this theory to account for the constancy and definiteness of these arrangements; but this seems easily explicable on the supposition that they are the various positions of stable equilibrium in which different numbers of the original atoms can be combined together. But then it is said it is impossible to explain on this basis how a variety of different molecules could ever have come from similar original atoms, how like atoms should ever have combined (if at all) in unlike ways. This, however, may be attributed either to an original motion or to an original inequality of arrangement of the atoms. For no doubt, in order to arrive at a definite heterogeneous universe, the seeds of heterogeneity must be in some way given at the outset; for we cannot introduce them later, as did Epicurus and Lucretius with their '*clinamen*,' without a breach of physical uniformity. If, however, we must in any case start with an original, or provisionally original, motion or irregular arrangement, and if this irregularity of arrangement is sufficient to account for everything, it seems most in accordance with the

Law of Parcimony to be content with this and not also to assume heterogeneity of the ultimate atoms.

The *a priori* considerations being therefore rather in favour of an ultimate sameness of atoms, what says the Physical Evidence? This seems at present somewhat difficult to decipher, and it will not be possible to give a decisive answer to the question until the nature of atoms is more fully ascertained. On the one hand the tendency of the latest chemistry is in the direction of resolving the hitherto so-called 'elements' into combinations of simpler substances, and this seems to point to the ultimate resolution of all into a single form of matter. The phenomena of isomerism shew how different qualities may be produced by different arrangements of the same components; and this idea that chemical and physical qualities are ultimately reducible to differences of mechanical combination seems strongly supported by the discovery of Mendelejeff of the striking law, that the properties of elements and of the compounds which they form stand in periodic relation to their atomic weights.* If we arrange all the elements in order of their atomic weights we shall find that the physical and chemical properties of the bodies so arranged vary gradually through a succession of maxima and minima forming various periods. Each of these periods forms a group of elements, the properties of which are gradually modified with the change in their atomic weights, and the corresponding or homologous units of each period form also families, the different members of which resemble each other in all their properties, and have always been classed together as natural families. The number of properties which have been shewn to follow this law of dependence on atomic weight is very striking; including density, atomic volume, nature of compounds, capacity of combination with different

* I have not seen the original work, but have taken my description of the results attained from Professor Würtz's *Atomic Theory*, chap. vi. It is there very clearly explained.

numbers of the atoms of the other elements (for instance, oxygen, chlorine, and hydrogen), malleability, fusibility, volatility, conductivity for heat and electricity, crystalline form, expansibility by heat, specific heat, power of emitting light or the position of spectral lines, electro-chemical character, and many others. This seems to exhaust the whole physical and chemical nature and to refer it all to weight, that is, to the amount of matter contained in one of the 'atoms' or molecules of each substance. When we remember too the effect of arrangement (as seen in isomerism), it seems difficult to deny that all this points to a resolution of the specific properties of the 'elements' into different multiples and arrangements of some original homogeneous particles. Again the elasticity of the molecules of the elementary gases seems to point to their complexity, for elasticity involves inner action of parts. However, there are sundry difficulties at present in the way; and at any rate the old idea that the different atomic weights were all exact multiples of that of the atom of hydrogen, must apparently be laid aside, for more accurate measurements have shewn that this is not the case, and even if we substitute the half or quarter atom of hydrogen there are many obstinate 'elements' which cannot fairly be included as exact multiples. This must be taken for the present as decisive against the claims of hydrogen to be the universal matter, but it does not of course affect the possibility of some still lower common measure.

Still the present verdict of science seems to be not on the whole favourable to an ultimate unity of matter. For instance, Professor Würtz (*Atomic Theory*, p. 308, cf. p. 313) says—"The diversity of matter results from primordial differences, perpetually existing in the very essence of these atoms and in the qualities which are the manifestation of them". Still the 'essence' of these atoms, that is, the atoms of the so-called 'elements,' may be only difference of number and arrangement of more ultimate atoms, as, for instance, in the

case of isomorphism and in Sir W. Thomson's 'vortex atom' hypothesis which will be mentioned below. Or again it may be that if atoms have been evolved as centres of 'force' (if force without atoms or centres is conceivable) there may have been several original forms of atoms corresponding to the possible ways in which different forces could be united at a centre: a hypothesis which would perhaps correspond with the doctrine of the old atomists that atoms differ in form but not in substance. This would also explain the differences in that quality which Professor Würtz considers ultimate, what he calls atomicity or comparative valency of atoms, that is, the number of atoms of hydrogen and other elements that a given atom can 'saturate' or combine with; an atom might well have one, two, or any number of poles of force according to its original formation. Not that this atomicity would not be just as well explained on the other hypothesis, as indeed is suggested by the names usually given to express univalent, bivalent, and other atoms, namely monatomic, diatomic, and so on, though these names are not really convenient, because apt to confound multi-valency of atoms with the property possessed by the 'atoms' (whatever their valency or complexity) of free elements in a gaseous state of combining with each other into molecules. It may well be of course that under certain circumstances of relative velocities or spatial position two or more of the free 'poles' of a complex atom may combine with each other rather than with an external atom (and the different valencies of an atom usually differ by two or a multiple of two), or that one or more of the 'poles' may remain 'unsaturated' either from deficiency of the other element or from some other cause, and thus be capable of further 'molecular combination' (p. 249). This would account for the relativity of atomicity, which in some of the elements of high multivalence seems to vary with the temperature and with the nature of other elements with which they combine; though such instances are difficult to prove, because in cases

where the multivalence seems too high the atom in question may not be in immediate combination with *all* the other atoms, but some of the latter may be combined with it only through each other. Again the fact that the higher atomicities in the different chemical families are in the heaviest elements, and the fact that each of the families or series of homologous terms in Mendelejeff's periods has throughout either an even or an uneven atomicity, even and odd alternating according to the succession of families, seem to point to the conclusion, that complex atomicity is to be referred to complex constitution and is not an ultimate quality. I think it will probably be eventually found that the atoms of high 'atomicity' or valency are really molecules, either homogeneous like the molecules of simple gases, or probably in many cases heterogeneous, true compounds. It seems at any rate impossible to prove *ultimate* essential diversity, and the human intellect seems instinctively to condemn the theory. There is also a further consideration in favour of an ultimate identity of matter, that all physical properties are, as we must hold, ultimately motions of atoms, that is, attractions and repulsions; and so far as we can see it seems probable that all the different chemical substances follow the same laws of attraction and repulsion. If so, they seem alike in their simplest reactions, and their distinctive qualities may well be the result of combination; even extension, or materiality, as we have seen, being a property not of each atom but of atoms taken together. On the whole, I do not think that the evidence at present available enables us to give a decided answer to this question; I see, however, no reason whatever why it should not be ultimately decided.

I ought perhaps to mention that even if all atoms be shewn to be fundamentally alike, that would not necessarily show that the conscious states underlying each are similar in themselves, but only that their relations are similar. Each monad may have a different kind of state corresponding to a

certain position ; all we know is that all such states follow the same laws and have reactions which in their phenomena to a single percipient are similar. Still, though this is *possible*, the supposition is not *reasonable*; for if the phenomena in each case are similar, and our only ground for inferring the noumena is the existence of the phenomena, we must reasonably assume that the noumena are also similar.

The next question which occurs, and which is suggested by sundry recent physical speculations, is this: Are the atoms themselves really ultimate? Are not even they evolved from some antecedent continuum? And with this is intimately bound up another inquiry, as to the nature and constitution of the so-called ether, the assumption of which seems necessary for the explanation of the phenomena of light and heat, and by many has been thought to be also indispensable to make intelligible any action at a distance, especially (according to Le Sage's hypothesis) the action of gravity. Now with respect to action at a distance, action at a little distance is of course as mysterious as action at a great distance; if therefore the difficulty is to be got over the medium must be absolutely continuous; its parts must touch each other all round. But after all is it any easier to understand how there can be action between two objects actually touching each other than if they were separated? They are *outside* one another, and the difficulty is to conceive action between two coexistent bodies which do not coincide. It was to avoid this that Herbart invented his 'Intelligible Space' in which two beings could be in the same spot at the same moment, though even that conception, if one tries to realise it, is very far from clear or satisfactory. In fact, is it not best to take causation as given, at any rate for the present? It may be that if we ever succeed in tracing the evolution of atoms from some simpler rudiments of motion we may see how they come to affect each other, but at present any hypothesis on this subject would be a mere guess. Our Physical Method cannot

at present take us so far as this ; we must be content to wait for it ; it is no use trying to run on ahead in the dark.

As to the doctrine of an ether, that is, of course, a hypothesis which, if not established as a fact exactly in the shape in which it is expressed, evidently has a close correspondence with the facts. The hypothesis is that between the solid bodies of the universe and permeating them in the interstices of their atoms, is a substance imponderable and not material in any ordinary sense, but exceedingly elastic and exceedingly unresisting, the vibrations of which constitute light and heat, which are thus transmitted from one solid object to another, and partially absorbed at its surface, partially reflected onwards through space. Now this is evidently a hypothesis of a discontinuous substance. For to begin with, it is impossible to conceive motion at all in a continuum ; and Lucretius' argument, that if space were full motion would be impossible, seems valid. It is very difficult to understand how in a continuum there can arise any separation of parts, and still more so to see what can become of the part lying in the direction of motion, for even if we speak of compression and rarefaction, that clearly means agglomeration or scattering, approximation or separation of parts. But at any rate definite vibrations of the kind here required clearly require a separation of parts in the vibrating medium. Elasticity implies discreteness of parts which must mutually act and react on each other. This is still more clearly seen in Le Sage's hypothesis for the explanation of gravity, which has been recently revived, that it is due to a perpetual hail on all solid bodies of ethereal particles, beating on them from all sides. This ether must therefore again be reduced to a mere assemblage of atoms or centres of force like those of the material universe. Indeed, according to the famous hypothesis of Sir W. Thomson, all material atoms are simply vortex rings (like the ring of tobacco smoke which some smokers can make) of the ether, which we look on as a

perfect fluid filling space. Such rings in a perfect fluid free from friction, Helmholtz had shown to be indestructible and indivisible, and Thomson's suggestion is that each atom is such a ring containing a certain quantity of ether which remains always identical, though of course in form and mode of motion the atom may be continually changing. This would make material atoms complex bodies formed out of the inferior particles or atoms of ether, just as molecules in turn are formed from them, and therefore would not materially affect the ultimate resolution of everything into atoms or monads; it would not therefore affect our present metempirical theory except in lowering our starting-point, from the material to the ethereal universe; in a particle of ether we now recognise our centre of force. I may notice that this hypothesis makes even all material atoms homogeneous in substance, differing only in mass; and coincides after a fashion with Mendelejeff's classification of elements by their atomic weights.

The point which now suggests itself is whether we can ever explain the formation of atoms from a continuous substance, whether the atoms of ether can come from some simpler continuous ether below; or whether, however far even in imagination we go back, we must not always find the elements of individuality already given. Everything phenomenal seems reducible to force or motion; but how can there be force without a definite point of application, or motion without anything moved? Everything noumenal is reducible to consciousness: but is a consciousness conceivable as existing at large, uncentralised and without change (for change implies a changeable)? Again in a continuum how could change ever arise, how could evolution begin? These points I do not pretend to answer further than to say this, that however far science proves to be able to go back it must (as it seems to me) include some fact of heterogeneity and also some principle of causation.

If the elementary substance were originally perfectly homogeneous in nature and position a creative intervention would be a necessary assumption, and this is in fact what Sir W. Thomson says of the first turn in his vortex atoms. But by itself and without such assumption how far back it can go, what new light it may throw on the origin of the material universe, what prematerial ages of ether beyond ether it may picture, who can tell? All we can say is this, that each step which it can make backwards will have a meaning for our metempirical theory, and will give us new conceptions of the ultimate noumenal nature of the universe. Thus our metempiric will grow with our science, and even if we can never (and even now we can see that it is impossible) reach a true beginning, our view will gradually take in more and more, and the universe will in us become more completely self-conscious.

The difficulty which is at present felt is how, consistently with reason and fact, to conceive the ultimate relation of these four existences—Matter, Force, Energy and Motion. Some conclusions in respect of them are pretty clear: for instance, matter is a system of centres of force; force is known only as a function of motion; energy is measured by the motions, or the condition of the motions, of masses; and mass depends only on the number of gravitating atoms or force centres; and finally, motion is of atoms and of aggregates of atoms, that is, again of centres of force. Science has resolved matter into force, or rather into the points where forces meet, and force is only a function of motion and of equilibrium. Can it be, then, that force can exist apart from centres, or that there can be motion without something moved? If so, how are centres or atoms formed? Motion and force are both relations: can there be relation without definite terms? Is there such a thing as force that is not energy? If we ever can know this, which seems almost in contradiction with our present knowing faculties, we shall

know also whether consciousness can exist at large uncentralised; and what is the nature of the process by which different conscious states are united into monadic series.

At present we only know certain general propositions with regard to force, energy, matter, and motion, such as that the total mass of the universe is constant, that is, the number of monads is constant; the total energy of the universe is constant, there is always the same capacity for work; the total momentum or quantity of motion in any given direction is always the same; and the total force of the universe is constant, or each monad always has the same properties under the same combination of external relations. The whole phenomenal universe may be resolved into motion, just as the whole noumenal universe consists as we believe of monadic consciousness. Whether motion will ever be resolved into something more ultimate remains a mystery: at present we must take it with Spinoza as 'immediately produced by God,' or to express ourselves more empirically as an ultimate datum of experience. Without motion there would be no phenomena, no change of consciousness; and as an object implies relation, that is, change, no Being prior to motion can ever be an object either of perception or conception.

I may notice that now we have taken in the conception of Monadism the relation of phenomena to noumena becomes more complicated; still we may note that without some such conception, some plurality at least of conscious series, such relation could not exist at all. If there were only a single conscious monad there would be no phenomena; just as if there were only a single atom there could be no motion. Each change in each of the coexistent monads is, as we have seen, both noumenon and phenomenon; each may be considered as the phenomenon of its antecedents, and to exist phenomenally in its subsequents, while in itself it is a noumenon. Thus each monad is composed of the phenomena of all other monads, that is, includes all space, and itself

exists phenomenally in all other monads, that is, in all space, or through all the coexistence which is represented by us as space: as a phenomenal object, or possible object, each monad is everywhere in the universe, and the whole universe in each monad. As Leibnitz said, though from a different standpoint, 'Each monad contains the whole universe from its own point of view'. I may add that the phenomenal existence of each monad in others is not only 'real,' in the case of actual causation between them, but, where the other monad is conceptive, there is also an ideal phenomenal existence in it of the original monad, not dependent on a 'real' perception, but permanent and symbolical, or ideal. In this manner each monad exists in the concept or idea of it in the consciousness of another, and this idea has corresponding to it a permanent structure in the monad's organism. This we might call its 'ideal phenomenal existence'.

It follows from what has been said that though in the case of each single monad, its noumenal and phenomenal existence are mutually exclusive, the one commencing where the other ends; in the case of the whole universe, noumenal and phenomenal existence are coextensive, and more than this, they coincide; for the universe exists noumenally in its separate monads, and phenomenally in the sum of the phenomena of the separate monads, which is identical with the sum of the noumena for each monad, as a noumenon is composed only of states, each of which is the phenomenon of some other. Hence, to the universe noumenal and phenomenal existence differ only as two classifications of the same congeries of facts: the universe at any moment is the phenomenon of its preceding history and the noumenon of which its later development is phenomenon—while to any of its constituent monads, its two existences differ as two entirely different facts in different consciousnesses. No monad contains (unless mediately by reflection from others) its own phenomena, but only the phenomena of others; but all phenomena together, and all

noumena together make up the same total sum of existence. We must, however, beware of supposing, at least on our present materials, that the universe does exist noumenally as a whole at all: noumenally it exists (so far as we can as yet go), only in its separate monads, not as one but as many; as a whole it exists only phenomenally, and that in each separate perceptive monad, separately and differently, each containing the whole from its own special point of view, so that even the total *phenomenal* existence of the universe, like its noumenal, is not a whole, but obtained by summation. Similarly, the total phenomenal existence of a monad, or in other words, an atom, is just *not* in the one spot where we are apt to speak of it as existing, but everywhere else in the universe, it is the sum of all the changes in other monads produced by changes in it. We may call each monad an Ego, in the sense of the German philosophers 'a pure Activity,' though I refuse to add the words 'and absolute,' because the activity of each is only its reaction on the activity of others. This is also an 'immaterial activity' in the sense that the two terms of the relation between two monads though, taken together in their common effect on a third monad, they are material, yet are separate in their terms in the two monads. This activity is also what Mr. Hodgson (*Time and Space*, p. 156) speaks of as "the cause of all things as well as of consciousness, and the sum as well as the cause of its effects". But I cannot go further with Hegel and the rest, for I deny that out of the development of a single Ego any reality or any particularity of fact could ever arise; an original plurality is the condition of any such development.

Thus we arrive at a consistent and symmetrical conception of the universe, noumenal and phenomenal, and of the relation between those two kinds or modes of existence. All that exists is states of consciousness, and each of these has two modes of existence, as a noumenon and as a phenomenon. Taken by itself, it is a mere absolute noumenon, of which the

only thing which can be said is 'It is'. Objectified by its monad, in relation to other states of the same monad, it is still noumenal, but now a special kind of inner event or feeling, a sensation or emotion, or thought or volition. Considered as impressed, or in relation to its antecedents, it is a phenomenon, and, if its monad be perceptive, becomes through the inner objectifying process worked up into an external object or event; just as in turn its own phenomena in other perceptive monads may be worked up into the object or event of which it is itself the noumenon, and in which it may itself be said to exist phenomenally. Considered again as expressed, or in relation to its subsequents in the cosmic series, it is in itself (its monad being perceptive) some form of volition or desire, and its phenomena in other monads become objectified as force or motion, in which again it may be said to exist phenomenally. Thus every state of consciousness, if objectified or qualified at all, without which it merely exists and has no description or predicates, may be said to exist either noumenally to its own monad, as some form of feeling, or phenomenally, that is, in its effects on other monads, as some mode of motion. Motion may thus be called the phenomenon of states of consciousness, and an atom the phenomenon of the centres of consciousness in which the states inhere. As the appearance of a conscious state implies some change in the relation of one monad to the rest, and as space is (whatever else it may be) the form in which the relations among monads are represented as objective phenomena to a percipient mind, any change in the relation of one monad to the rest must be represented phenomenally as change of the space relations of its atom, that is, as motion: in other words, the objectified phenomenon of a state of consciousness is motion—and the atom is what moves, just as the monad is what feels; they are respectively the 'substances' which support motion and consciousness respectively.

CHAPTER VII.

TIME AND SPACE.

IN what way then shall we conceive the existence of the noumenal universe. Is it in Time and Space, or are these forms of phenomenal existence only? Now, to begin with, space and time (like all relations and all nameable things) are clearly, as perceived, objective only, they are in fact forms of relation which go to make up objects. But objects may be either noumenal or phenomenal, so that so far space and time may, as perceived, have both noumenal and phenomenal existence. But there is this great distinction between them, that time is the form of experience generally, noumenal or phenomenal, in a monad, while space is the form only of phenomena. It would seem therefore that the noumenal universe, as a sum of monads, each of which is the sum or rather the summation of its experience, must exist in time; in other words that time, as we know it, is a form of monadic and therefore of cosmic noumenal existence: but this does not follow as to space, for although to the universe as a whole phenomenal and noumenal existence coincide, the two are different arrangements of the same materials, and space as known is the form of the phenomenal arrangement: hence space as known is not a form of the noumenal cosmos as a collection of monads. Or in other words, while it may be said with equal truth, that monads exist in time and time in monads, of space we must say

that monads do not exist in space but space in monads. There is again another distinction to be noted between space and time, that whereas time is the form of all sequence in states of consciousness, whether considered as noumenal or phenomenal, and whether such consciousness be perceptive (objective) or merely sensitive (absolute); space on the other hand as we know it, is not only confined to phenomenal experience, but has no existence except as a form of *objective* phenomena, in fact, of the external universe. Quantity and extension have no noumenal existence. Till phenomena become objective as such, in other words, until the perception of the world as a system of permanent external objects, phenomenal space has no separate existence *as such*, even potentially, or rather so far as it exists it is not differentiated from time, for if the ordinary psychological accounts of the origin of the idea of space have any truth, space till perceived as such, does not differ from time; it is in fact only certain time relations considered as permanent and reversible and thrown outwards. Space therefore, *as we know it*, is developed from time, and not only does not extend to noumena, but even in phenomenal existence does not stretch back farther than the separation of self and not-self: an illustration of which is the fact that if philologists are right, the original meaning of 'I' is 'the here,' so that 'not I,' would be the 'not here'. Time had an absolute or potential objective existence before it was known; space on the other hand, had not, except as a kind of time.

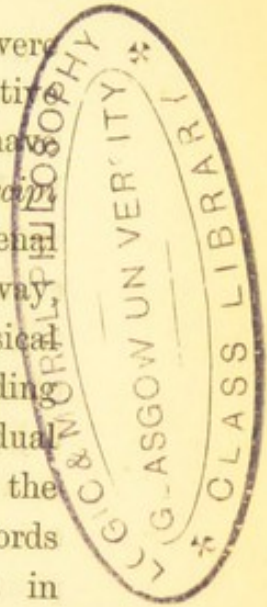
Moreover, it cannot even be said that space is the only form of phenomenal existence, or even of phenomenal co-existence; it is only the special form taken by co-existent visual and tactual phenomena, according to the mechanism of our organism, which is therefore in a sense *a priori*, to each individual, as Kant held, though *a posteriori* to the race as a whole. Even to us there are other such forms of co-existence. If I shut my eyes and listen to an orchestra, or analyse the

odours of a bouquet, I unite the various sounds and smells which my analysis detects under forms of objective co-existence which are not space. Smells and sounds have no space relations, except by association with visual or tactual experiences, with which they have been accompanied. It seems therefore that the noumenal universe, the world of monads, does not exist in space, but that space is a form of phenomena—and this seems confirmed by the fact that the force exerted by an atom is unaffected by time and also by space, it is identical in amount at all times and all distances. The laws of motion and attraction can be deduced *a priori* from these two principles of persistence or indestructibility of force in space and time respectively. And if this be so, if space and time be phenomenal forms of the noumenal reality, change in the latter, that is, change in consciousness, must evidently be phenomenally symbolized by change in space and time, that is by motion: and by motion *only* for that must be the general form of phenomenal change, so that all physical events and changes must be reducible to motions of persistent and unchangeable atoms.

What has been said above refers only to space as we know it, but if there is a noumenal universe at all, there must of course be some mode of co-existence among the monads, whereby they are able to enter into mutual action; and of this, space must be as it were a phenomenal translation. If it were not so, there could be no such thing as noumenal evolution, or as mutual action of noumena, and Physical Metempiric would be impossible. Therefore, it may be said that we must allow to space, and the other forms of phenomenal co-existence a certain kind of existence, not only phenomenal, in separate monads, anterior to actual perception, as the condition of such perception, but noumenal also as the condition of the co-existence of a plurality of monads in mutual relation, and the consequent perceivability of a universe. If we admit that the monads constituting the

noumenal cosmos, were mutually related before they were perceived to be so, in fact before the genesis of perceptive consciousness, we must allow that space and the rest have not only a certain phenomenal *esse* which is not *perceptum* (though it is so 'potentially') but also a certain noumenal existence corresponding to its phenomenon in some such way as the monad corresponds to the atom. If, as the Physical Method seems to show, all forms of consciousness, including space, even if now innate or *a priori* to the individual counting from birth, are *a posteriori* to the race or to the individual carried back to its 'prenatal origin, in other words are the impress through habit of certain uniformities in phenomena, space must have had a 'potential' existence in such uniformities; if, further, relations among phenomena are derived from relations among noumena, space must have had a further noumenal existence in the noumenal relations which produced the phenomenal uniformities which produced its perception. If noumena have changes corresponding to phenomena, there must be something in the noumenal universe corresponding to motion, for phenomenal changes or forces are all reducible to motion of atoms: but where there is motion there is space, the noumenon of motion must involve a noumenal space. It may be too that the relations of co-existence among noumena are not accurately represented phenomenally under space as we at present conceive it; it may be that these noumenal relations contain other 'dimensions' than those which our faculties grasp, and do not contain certain properties such as those of flatness, faculty of superposition, and similarity of parts, which our geometry ascribes to the space which it treats of.

This leads to the question how far relations can be said to exist at all before they are perceived. How can a relation have any absolute existence? Now, it is clear to begin with, that relations have no existence apart from their terms: there is nothing between the individual objects binding them



together, or keeping them asunder, or altering their relative position. But it is simply either their mutual action—that is a state of one following on a state of the other—(if the relation be dynamical or physical), or (if it be statical or logical) the way in which the two are combined in thought, which constitutes their relation. Relation therefore is only a mode in which two or more *entia* are combined, and as such can of course exist only in a combining consciousness (if such there be), no other combination of *entia* being possible. Still there is a sense in which relation may be said to have absolute existence; for it seems to me that just as a simple uncompounded feeling, while merely felt and unrelated to other simple feelings, exists absolutely as an absolute substance, so a compound feeling composed of two co-existent or overlapping feelings, while merely felt in a combining consciousness and unrelated to other compound feelings, exists absolutely as a relation, that is, exists as that which when perceived or related to other relations, becomes an objective relation. Indeed if objective existence come from absolute, it can only be through these absolute relations which are the rudiments of objects; as they themselves become related the objectifying process becomes itself an object, and thought is self-conscious. Now these absolute relations can occur only in a combining consciousness and between the parts of such a consciousness, and it is therefore only the inner relations of such parts that have in any sense an absolute existence. In other words, a relation can have no absolute existence except inside a monad; between different independent monads, not combined in a higher monad, there can be no relation except in the respective monads or in some other monad, for there is no existence outside all monads or outside every monad. That is to say, one at least of the terms of the relation must be metempirical and represented symbolically by its corresponding phenomenon; for no two feelings of different monads can ever co-exist (except possibly in a higher monad,

or as Kant would say, in a 'non-sensuous intuition,' or 'intuitive understanding'): so that the relations of monads *inter se* can be spoken of only symbolically as an expression of the noumenal condition which underlies the fact of the successions of phenomena in different monads, and of the relations of these successions *inter se*. They are a short form in which a metempirical consciousness expresses to itself the fact that particular noumenal states in one monad, follow or precede certain other states in another monad.

Let us examine this more closely. The relation of monad A to monad B can (except on the supposition of the co-existence of A and B in a combining monad) exist only in three ways, in A, or in B, or in some third monad. As in A (and similarly in B) it exists in two ways; first as A is active in the feeling of action, which when connected with a phenomenon perceived as following gives the idea of efficient causation which we attribute to 'will'; secondly, as A is passive, in the occurrence of phenomenon *b* to noumenon A or (by reflection and re-impression of phenomena) of phenomenon *a* in noumenon A, which, if A be a perceptive monad, constitutes the objective external existence to A of atoms *a* and *b*. It is this perception by monad A of phenomenon *a* following on the feeling of action or expression in monad A, that makes us consider the relation of monads to phenomena as one of efficient causation, and makes us extend this conception to phenomenon *b* as produced efficiently by noumenon B. Hence we get at the idea of a mutual relation of noumenon A and noumenon B, namely that of producing in each other phenomena. Again, as in a third monad C, the relation between A and B exists only as the relation of phenomena *a* and *b* as perceivable objects to C,—and here the relation becomes one of *physical* causation. Now in the last instance alone has the relation in any sense an absolute or unperceived existence, namely as two co-existent feelings of C, afterwards perceived as a relation between the feelings, and

ultimately between the external atoms *a* and *b* to which the feelings are referred ; in the first two cases the only way in which the relation between A and B can be said to have any existence prior to perception, is as the fact of the occurrence in A and B of certain noumenal states of A and B which are afterwards recognised as feelings of action or as certain objective phenomena. So we must conclude that we can speak of the noumenal relations of different monads *inter se* only symbolically for the fact that each as related to the other becomes or produces a phenomenon : monads are as we say 'efficient causes' of phenomena in each other, and these phenomena are mutually related as objects, by physical causation. The noumenal relation among monads which we call 'efficient causation' is, so far as we know or conceive it as existing, only a name for that which when phenomenalised becomes physical causation ; if we try to conceive it we can do so only under the two conceptions of will and action on the one hand, and a sensible shock on the other. We have no right to speak of it as having any actual existence, other than this, or indeed any possible existence, except to a combining monad ; to us they are only possibilities not of experience but of a consistent and rational metempiric.

Again I must notice that it is impossible to assign to relations as yet unperceived, and the terms of which do not co-exist in a combining consciousness, a potential existence. Possibility is not a form of existence but only of thought. It is only a way in which we explain to ourselves the sequence of phenomena, prophesying effects from their causes. Aristotle's *δυναμις*, as for instance in his formless matter, was only an abstraction, a notion of the mind ; and not being outside in anything, nothing added to it could convert it into actuality. Actuality arises out of preceding actualities ; a potentiality is the *idea* of succeeding actualities. So far therefore, as the universe is a succession of events in time, and so far as its various monads are not united in some com-

bining consciousness, space had no existence noumenal or phenomenal until the rise of a perceptive monad ; its terms were there but not united. There can be no such theory as 'Space in itself,' for space is a form of relation, and that requires a combining monad.

Again the fact that events and forces are independent of time and space, the persistence of matter and energy, and the law that force is equally potent at all distance (though of course more widely distributed), and that events happen equally well in all parts of space where their conditions occur, prove that time and space have no real existence, but are only forms of arrangement of phenomena. If matter be centres of force, each particle of "matter is everywhere present, and there is no intervening space unoccupied by it". (Faraday quoted by Lewes, *Problems* ii. 329.) The matter of each atom touches the matter of all the rest. If this be so, where is the difficulty of action at a distance? Space is a plenum—filled with matter, and matter is not impenetrable, but each atom penetrates and pervades, and is itself penetrated and pervaded by, all the rest.

These considerations seem to dispose of any pre-objective or noumenal existence of space, except in the regressive thought of the Metempiric who has to assume a condition or form of co-existence and simultaneous mutual action among monads. Time, on the other hand, has both pre-objective and noumenal existence stretching back to the first appearance of monads or centres of consciousness. A monad is a series of conscious states ; its essence or 'form' is time and time only. Beyond this even time disappears. If we can make the hypothesis of a noumenal universe undifferentiated into monads, such a universe would not be held together either in sequence or co-existence, it would exist neither in time nor in space ; and this seems confirmed by the observation already made, that the actual laws of motion are expressions of the fact that force is independent of time and space.

Such a universe would have no unity, and therefore no plurality of parts, no relation except in possibility of evolution, which possibility would have no existence except to an *ex post facto* intelligence. Yet such intelligence cannot help assuming it in some form: The One alone can never be conceived as producing the Many, unless it already contains the elements of plurality—Spinoza's substance is the grave of all existence.

Thus if we take the noumenal universe in its earliest conceivable or rather thinkable stage, before the evolution of monads, then if we consider that till feelings were held together there could be no *change*, no relation of any kind even absolutely existing, we must admit that there was no time; and we must arrive at the conclusion that the noumenal universe is not in time and space, but that time and space have been evolved from it. Time is the form in which the noumenal substance or consciousness is 'schematized' into experience, by being focussed in monads. Space is the form in which the sequent experience of monads is by reversal 'schematized' back into objective co-existence: just as objective unity or likeness is reached by the reversal of difference or unlikeness: Chaos becomes the many or the different and by denial or reversal of difference becomes the one. Time and space are therefore forms of the process of objectification, of the gradual progress of the universe to self-consciousness; and when this is attained it will again transcend them, the past and future will again become present, everywhere will become here. I may finally remark that in speaking of 'Time' and 'Space' as forms of phenomenal sequence and coexistence common to all sensitive percipients, as Kant was accustomed to do, we really are assuming what can never be proved, that time and space are the same to all, or that the conscious states which to each bear these names are identical. We can as little know this as that the sensation called 'red' is the same to all.

Time and space express the same relations to all minds, but the expression in one mind may possibly not be the same state of consciousness as that in another: if so the question whether noumena are in time and space loses much of its significance. This view was expressed by Spinoza in his supposition of the other attributes of substance besides extension each of which is capable of being combined with thought.

No doubt it is sometimes said that it is possible even in conscious experience to get rid of time. Reason, for instance, is independent of particular occasions, it perceives things, as Spinoza says, "*sub quâdam æternitatis specie*". But this really means that it abstracts the particular times at which the particular instances of a general principle occur as irrelevant to the nature of the principle which is uniform in time; for as I have said the relations of phenomena are independent of time. But concepts are very different from percepts or actual things; they have no existence so far as we know, except as incidents in a mental series (the Platonic 'Ideas' have been long rejected), and again have no reality except so far as they are derived from and recognisable in actual phenomena, and in each of these ways they are bound up with time. Spinoza himself explains that by eternity he does not mean actual existence out of time, but only 'existence itself so far as it is conceived to follow necessarily from the mere definition of the eternal thing. For such existence is conceived as an eternal truth, as well as the essence of the thing, and therefore cannot be explained in terms of duration or time, though its duration be conceived as without beginning or end.' This may be true enough of a logical abstraction. Actual existence, however, means to us some form of consciousness, but to us at least consciousness depends on change, and change is in time.

CHAPTER VIII.

NOUMENA AND PHENOMENA.

WE have now arrived at a stage which gives us a comprehensive view of the great problem of Metempiric, the relation of Noumenal and Phenomenal existence. Apart from Metempirical hypotheses there is of course no such question, the distinction has as yet no existence. From my experience alone I know nothing of 'phenomena' at all; the only distinction which I can draw is between *absolute* or unrelated consciousness on the one hand, and *relative* perceptions on the other; between an unperceived conscious state of which I can only say 'it is,' and the universe of objects produced or at any rate put into form by my perception or intelligence. This distinction of absolute and objective is quite different from that of noumenal and phenomenal; all is as yet noumenal. But when once the metempirical assumptions are admitted of the existence of Things-in-themselves and of Other Consciousness, the distinction at once arises, and when once suggested it never will give way till it is solved.

Now the solution of this problem to which the Physical Method leads was broadly apparent on the identification of Things-in-themselves with that inner consciousness underlying phenomena to which we were driven by the logical extension of the hypothesis of 'Other Consciousness'. The universe is thereby shown to have two modes of existence; one noumenal, in itself, the inner consciousness; the other

phenomenal, in all other minds: and the broad relation between the two, between noumena and their phenomena, seems most reasonably conceived as one of Efficient Causation, not the mere sequence of phenomena which we call physical causation, but rather something analogous to that of which we feel examples in the activity of will and the receptivity of sense. The law of reaction of a monad on an outside stimulus, which phenomenally must be some simple law of motion, that is of attraction or repulsion, must, it would seem, noumenally be some reaction of the rudimentary will, some act of self-preservation, or self-modification, which when developed is the avoidance of a painful or the encouragement of a pleasurable state, and, later still, a moral action, the resultant of many motives. Thus we see how the roots of the inner life must coincide with those of the outer; and how the first principles of morality are bound up with the laws of motion; the primary law of Ethic is the noumenon of which the primary law of Physic is phenomenon. But whether this characterisation of the relation between a noumenon and its phenomenon as causation be true or false, we must assume that there is at any rate such a real connexion between them as produces a fixed relation between the changes of the one and those of the other, so that the same noumena under the same conditions of arrangement always produce in one another the same phenomena. For this is the only reasonable assumption that can be made, that the noumena, which we infer from their supposed relations to phenomena, are always constant in this relation; and that consequently their mutual relations *inter se* are similar to the mutual relations of their phenomena *inter se*, the latter being in fact only a reflection of the former.

In one sense it may be said that noumena are their relations, for without relation there can be no change of conscious state; they are the holding together of their various causations and impressions. "Existence," as Mr. Lewes has said (*Problems*

i. 70), "is the static aspect of Cause; Cause is the dynamic aspect of Existence". But we must, on the other hand, not forget that we speak of a being, or thing, having relations to other beings, or things. That implies some holding together of the various terms of those relations in some inner union (for if the holding together were only in the perceptive mind, this amounts to a complete denial of the external factor, which we are now assuming); and this necessity of a common centre of various relations seems to me to be granted by the use of the word relation, joined to the assertion that one object may have different relations to our several senses. How else are what are called the 'objective factors' united? Clearly not by the mind, for the mind learns and does not create the properties of matter and the constitution of the universe.

Thus we arrive at a broad view of the relation of phenomena to noumena. Nothing exists but states of consciousness bound together in centres (for we may omit as at present undecipherable all the history of the earlier pre-atomic and pre-monic stages), which mutually act upon each other according to laws depending on the relations of the centres, and by such action change such relation. Hence each such state of a centre is the noumenon of the centre at that moment, and is also the phenomenon of the several states in other centres and the previous state in its own, of the mutual action of which it is the resultant; it also itself produces, or helps to produce, in like manner, further phenomena in all monads with whose states it is in action. Thus, if it affects the organism of a perceptive monad, the sensation which it there produces, or the objective factor, is its phenomenon to that monad; and if by means of the structure of the receptive monad it be worked up by an escort of other states of the same monad into an object, such object may again be called its phenomenon: because what it gives to the percipient monad is the datum and groundwork, and the form to which it is brought by perception is merely a process applied to it

and to all similar affections by the percipient monad for its own purposes. Thus every monad is perpetually expressing itself in phenomena, manifesting itself to the rest; every noumenon has innumerable phenomena, every phenomenon has innumerable noumena, but for convenience of inquiry we select, as in the case of a physical cause, the most important factor or factors and call them the noumenon of a particular phenomenon or the cause of a particular effect. But, in truth, the whole universe is at every moment inextricably interlaced with causative links, and if we ask what is the noumenon of any phenomenon or the cause of any effect, we shall in strictness hardly be able to give a smaller answer than one which embraces all the monads that exist and their mutual relations. Every noumenon is phenomenon of some other noumenon, and every phenomenon is itself a noumenon and the cause of phenomena in like manner. Thus the distinction of noumena and phenomena by being completely generalised loses its importance: it becomes merely a distinction of aspects: a conscious state is either noumenon or phenomenon according as it is looked at it as a state of its monad or as the effect of an external monad.

BROAD ASPECT OF EVOLUTION.

But the result of this mutual action of the monads which compose the universe is in a word Evolution. This comes, broadly speaking, from the union of monads into different permanent combinations of increasing complexity. These, in addition to their reactions on foreign 'stimuli,' gradually acquire also certain inner reactions among their constituents which depend only indirectly on impressions from monads not included in the organism, and the unity of the permanent organism being impressed on its various constituents as a prominent part of their experience, an inner series makes itself felt to each of them, which they separate from the outer impressions as Self from Not-self. Again, the

permanent organic arrangement or form of relation among the constituents gives to their reactions on external stimuli fixed forms, and these forms are after a time by their permanence and universality of application distinguished from the various stimuli as Subject from Object or as Mind from Matter. We shall have hereafter to consider to some extent the evolution of what is called mind or knowledge from its simple rudiments, uncompounded states of consciousness; and the consequent gradual development of Objective from Absolute Existence. But I wish here to make a few preliminary remarks on the true aspect of evolution generally.

What is Evolution? It is an objective relation, a hypothesis, partly verified, by a percipient and thinking being to account for the relations which he observes between the different parts of his experience. Objective existence is, as we have seen, the product of the organic forms of reaction of the organism and an external stimulus. The main characteristics of it are therefore internal, and without these no object can exist. Hence the reflective organism sometimes comes to the conclusion that its world is wholly self-created, and no conception to the contrary could ever possibly arise if it were not for one fact, the fact of its having a body, a part of the external world of objects standing in a peculiar relation to the whole conscious experience, and that it comes to see that its body must have a mode of existence beyond its material phenomena, some mode in which it is intimately connected with the whole sphere of consciousness of the organism. Then it sees other bodies like its own but disconnected with its consciousness, and naturally, therefore, though metempirically, assumes that each of these other bodies has another consciousness connected with it in a similar way. Then there comes in the discovery that the body as a material object, its motions, and all its physical phenomena are derived from and convertible into ordinary physical motions and phenomena, and that it differs in nothing from these except

by greater complexity of arrangement and conditions. And as no such complexity can of itself ever produce anything but material results, certainly not the conscious states which our body seems in some way to influence in us, we must carry on the hypothesis of the concomitant conscious states right down to the elements of the universe of matter and force. And connected with the different kinds of body and motion we naturally imagine the kinds of corresponding consciousness to vary, so that answering to the most general data of the physical universe must correspond the ultimate rudiments of consciousness.

Let us here take a few of these '*summa genera*' and see how they mutually correspond. Now the most general description of the material universe at the farthest limit to which we can take it is that it is a 'series of motions of centres of force'. It seems hence to follow that the lowest rudiment of consciousness to which we can reach is in centres of consciousness.

There arises the question as to which some doubt may be raised as to whether consciousness is the noumenon of motion or only of change in motion. Now, though the kinds of feeling known to us are probably all compounds of simpler units, so that a change of feeling is rather a change of *rhythm* than a change of motion simply (and this seems borne out by Mr. Spencer's theory that all motion at present existing is rhythmical), it would seem that in the ultimate elements of consciousness there must be something corresponding (*a*) to motion, (*b*) to change in motion. Now it would no doubt be possible to hold that it is only the latter of these elements of which consciousness, as we know it, is the noumenon: so that the difference between feeling and change of feeling would be only that between similar and dissimilar successive shocks or changes of motion; and the whole of consciousness, feeling and relation alike, would be reduced to homogeneous conscious units arranged in a particular sequence, differing from

one another only in some such way as different changes of motion differ, such as direction and intensity; and Mr. Spencer's view above referred to seems to favour this theory. But it seems to me more reasonable to assume that motion generally and not only change of motion is the phenomenon of consciousness in its most general form, and that while the motion continues the simple feeling which it represents likewise continues, a change of motion either in direction or velocity involving a change of feeling. This view has the advantage (as it seems to me) of making the universe of consciousness, and therefore of existence, continuous in time, instead of being a mere number of disassociated atoms or units: if time be discontinuous what is there to bind it together? If consciousness be composed of discrete units not permanent, and separated by intervals, how can it be connected in a series? Besides, consciousness as we know it *is* continuous, one feeling existing till interrupted by another (which seems to agree with the first law of motion), and though this continuity might be explained as a quick recurrence of shocks the effect of each of which remained till the appearance of the next, the latter part of this hypothesis is inconsistent with the theory that feeling is the noumenon only of the *change* of motion, for that is instantaneous and has absolutely no permanence.

Broadly speaking, therefore, we may say that motion is the phenomenon of which a conscious state is noumenon, and that the laws of motion are the projection or translation in phenomena of the laws of the universe of consciousness. Here we are at once face to face with all the great physical problems of Matter, Force, Energy, Motion. What do they all mean in the conscious world?

Now, to answer this would require a much more detailed analysis of the physical facts, but there is no harm on starting in taking a broad survey of the situation. This then is our datum, that Consciousness is the Noumenon of Motion. Now

if we include the so called 'imponderables' such as the luminiferous ether, in our definition of matter, all motion is motion of matter, and indeed it is impossible for us to conceive any motion that is not motion of something and that something an object which might affect our senses. Motion therefore is bound up with matter as its vehicle, and it would therefore seem that consciousness too must be bound up with some vehicle, or *Träger*, and cannot be at large, a feeling here or there independent of any other and without permanence. In this respect I cannot understand the views of Prof. Clifford and his followers, who seem to look on the noumenon of motion as feeling generally, an 'all pervading sentiency,' and not in any permanent subject, though I admit that if science can ever throw any light on the origin of atoms out of a continuous substance, this continuous sentiency may also become intelligible. But, at present, motion at large, and not of some moving body or centre, seems to me perfectly inconceivable; and a continuous consciousness unbroken into any definite states and not united into definite series, seems to me equally difficult to imagine. However, if definite centres of consciousness have been in some way evolved from some continuous psychoplasm the difficulty as to motion without things moved would disappear, for motion being only a phenomenal relation in a percipient could clearly not have arisen till consciousness was individualised in monads. In the premonadic state there could be no motion for there could be no phenomena.

Consciousness being thus the noumenon of motion, we may expect to be able, when we look at the qualities of motion, to see how they are probably represented by corresponding qualities in the underlying consciousness. For instance, intensity of motion, or velocity, evidently corresponds to intensity of feeling. Again, the different kinds of motion, such as progression, rotation, vibration, all probably represent different kinds of conscious states. On the other hand,

direction, which is determined by reference to surrounding movements and bodies, can have no meaning except to a perceptive consciousness, for relation cannot exist in one of the related terms. Similarly mass is no quality of individual motions, but depends on the number of moving particles, and these different motions are summed only in our perception, and their coexistence and similarity cannot affect any of them individually except through perception. I therefore do not agree with Mr. Frankland's view in the lecture partly reported in *Mind*, No. XXI., that mass corresponds to massiveness or volume of feeling; the feelings are distinct and each unaffected by the other, the mass is the result of the holding together their similar phenomena in a perceptive intelligence. The other identification for which he claims novelty that of velocity and intensity of feeling is what would occur to anybody who understood what was being talked of. If motion mean consciousness, the more motion of that kind the more consciousness of that kind.

If then consciousness is the noumenon of motion, and motion is of matter, what is Matter, the moved, and what is the corresponding vehicle of consciousness? The broad answer is that matter when analysed is nothing but the unity and centre of its forces, the agent of which force is the action. The various properties of matter all depend, as analysis easily shows, on the 'forces' which it displays, on its various activities which affect our senses in different manners, and which in the case of each portion of matter stand in determinate and fixed relation to the activities of the rest of the material universe. Matter without activity, not working, would have no existence. Matter then is to us a sum of forces, or activities, and every atom is a centre of forces. Matter then is that which binds together forces, and its forces are the expression of its activity, when brought into relation with other centres of force. Similarly the

noumenal equivalent of an ultimate element of matter is a monad, a centre of conscious states.

That being so, what is Force? Now when we come to examine this carefully we shall see reason to be much on our guard. This notion of force has gathered round it many fanciful and metempirical ideas which cannot be admitted into any plain account of the facts. What is this mighty Power which pervades the universe, persistent, indestructible, ever working? Its action is seen in motion: and do we know more of it than in its action? What is the use of calling it the 'cause' of motion? That is like the old notion of matter as the cause of sensations, the substratum of qualities. The qualities *are* matter, and similarly the motions and virtual motions, or pressures, and their laws of relation *are* force. The noumenon, therefore, of force, like that of motion, is a conscious state. The laws of force and motion are the fixed relations which hold among the motions and pressures of bodies as depending on their mutual position, mass, and so forth. If this be so there can be no separate noumenon corresponding to force as opposed to motion, because force cannot as phenomenon be distinguished from motion, or pressure which is virtual motion. There is a distinction however between the force or motion impressed on an atom and the force of the reaction of the atom, and the latter perhaps is the sense in which the atom is most rightly called a centre of force. The force of an atom is that with which it acts, the motion or change in motion in another due to it, not that given to it; and in this sense its force would be more properly represented by the active term of the conscious arc, the rudiment of will, the motion received being represented by the passive term, or sensation. We may therefore, if we please, consider motion as the correlative of sensation, and force as the correlative of will; but we must remember that force is only known as motion, and that the distinction is only between motion received and motion given, between passive

and active consciousness. Force can only be measured by change of motion or pressure, and its laws are those of motion which can thus be deduced *a priori*. The earliest perception of force seems to have come from pressure or resistance to will. It comes gradually to be mixed up with and form part of the notion of matter: force is the activity of matter, matter is the supposed permanent potency of force. Here again we see the origin of the notion of cause and effect: the volition is the cause, the resistance the effect; the two are in that simultaneous, the action and the act. I hold it a most significant fact that the notions of force and will arise in one and the same act, so that the two appear and are thought of as correlatives.

Next we may turn to Momentum. This differs from force only that in addition to motion or velocity it includes the element of mass, which we have seen to be simply a function of the number of moving particles, and therefore not to have any analogue in the inner consciousness of each, save perhaps so far as each gets stability from the influence of its fellows. This also, for any summation or general principle of it in the universe, includes the element of direction. The sum of moments is at all times the same in each particular direction, otherwise internal forces or movements of the parts of the universe would cause motion of the whole, which we know to be impossible.

Finally there is the great conception of Energy which has brought such a revolution into modern science, and enabled us to correct the old vague and often false notions of the persistence of force. The amount of work which can be done in the universe is always the same from time to time: that is the great principle of the Conservation of Energy. This notion of energy of course includes motion and likewise mass; it is rather therefore a principle of combination among motions that one modifying any individual movement, a principle which lies in the mind of the man of science,

and which has no corresponding noumenon in the conscious states underlying the individual movements. Given one of these movements separately, its particular conscious state cannot for aught we can see be affected (unless by perception) by any resemblance or other relation whatever to the other movements in the rest of the universe: so far as these come into causal relation with it, of course they affect it, but there cannot be, so far as I can see, a noumenon of any of the individual movements, any state or change of state corresponding to the scientific fact that energy lost in one place is gained in another,—or corresponding even to the idea of energy of position, which is really only a scientific prevision out of present conditions of the actualisation of a certain amount of energy when a further condition comes in to complete the 'cause'. *Unless* indeed there be a Universal Mind:—that is a conception to which we must return hereafter. At present we have the universe as a system of motions of centres of force; and when we try to define force it is only a certain relation of motions depending on the spatial relation of centres, though in passing through a centre it is broken up into action and reaction, which correspond to the two terms of the conscious arc, the rudiments of sensation and volition respectively.

This universe of matter is clearly extended in Space. But we have already seen that space is only the form in which our senses represent to us coexistent impressions, visual or tactual, and though there must be some mode of coexistence answering to space which is the condition of the mutual action of monads, we have no more right to say that it is like space except in its functions than we have to say that the external conditions which produce in us the sensation of red are themselves of a red colour. Properly speaking there is no real thing corresponding to space, for the union of different states can only coexist in a percipient mind, and therefore our space is as real a mode of coexistence of different monads as

any. All we can say of the real coexistence is that there are at one and the same moment different states of consciousness which act upon one another, or in other words, are the next moment changed according to fixed laws.

CHAPTER IX.

MONADISM AND MONISM.

THERE is one question more in respect of this noumenal universe, which to many minds surpasses in interest all the rest. It is this: can we reasonably suppose that the monad consciousnesses of which we imagine the universe as it is in itself to be composed, at any rate to a considerable extent (for some portion may probably be still undifferentiated into monads), are in any way bound together and united in a Universal Ego as feelings are in a perceptive soul or Ego? To this I think our *primâ facie* answer must be that, so far as our present knowledge goes, we do not see how they can. In our experience different *co-existent* and not coalescing feelings are never united, though a single feeling may of course be complex; the Ego is a chain or series of points, not a cluster or surface, its extension is in one dimension only, not in two or in three.* To this, however, an objection may be raised which may be put in the following form—‘How do you know that in your own Ego co-existent feelings are not united? Certainly, each of your feelings is very complex and comprises

* To prevent misconception, I am not going to speak of Mr. Lewes's theory which of course is the natural theory, that any conscious act is a reaction of the whole organism or sensorium (*Problems* iii. 40, 87, 263), not of one particular organ or particle, and that this is the proper representative of I. That may be so, but it may only mean that the I of each man is a number of monad consciousnesses working together and with many mutual interactions.

many simultaneous elements, and in many instances, as in the combination of elements from different senses, and even in a single sense, as in the perception of adjacent points of space, the physical evidence seems to show that it is a combination of the feelings of different adjacent monads (the phenomena of which are the different nervous tremors of the organism): moreover, the complicated chemical construction of nerve matter and of all organic molecules, and the fact that their peculiar physiological properties depend on this complexity, go to show that the corresponding monad consciousnesses are capable of a similar combination, not only as mutually influencing one another, but as forming a new individual. This all looks as if a complex monad, like your Ego, was not a temporal bond only, but a bond of co-existence too, a bond in that form of existence of which the phenomenon is space: in fact, the conscious co-existence in you of feelings derived from different parts of your organism is in reality space-in-itself.' To this I can only answer: It may be so, I cannot tell, but the evidence seems against it. In the first place it is almost universally believed by psychologists that the inner series of consciousness is composed of single links, and though many states of consciousness have very complex origin they either become welded together into a single state, as for instance in the sensation of sound, or enter consciousness serially however quick the succession may be (Wundt, *Phys. Psych.*, ii., 207, 263). Lewes (*Problems* i., 343; ii., 149, 219) says, in like manner, that "even relations which are objectively simultaneous are by us perceived successively". Two feelings cannot be simultaneously present in consciousness unless their relation forms the object of consciousness; and this relation may in reflection be separated into the two feelings, which then seem to have been simultaneously present; but no two unconnected feelings, between which no relation is perceived, can be present together in the same consciousness, for if so, one consciousness could become two. The same consciousness can never be in two states at

the same moment, its states are discrete and successive (Wundt ii., 3). No doubt it may seem that this is not so in the lower animals, and not perfectly so in the higher; but that seems only to show that the lower animals (such as starfish for instance), are rather republics of monads than monarchies and that, even in the highest, centralisation is not perfect; there is nothing to show that any single monad perceives uncombined and synchronous changes.

Then again as to the different senses,—though the transcendentalist argument seems to me to prove that light, sound, taste, smell, heat, &c., are all *a priori* forms of sense just as well as it proves this of space and time, or better still,—if we follow the physical evidence, they seem to have been all gradually developed out of one primordial sense, and are probably different modes of aggregating the same primordial units of consciousness; and in any case they seem rather different machines for conveying different particular kinds of disturbances to the central consciousness than independent monads, and there is no difficulty in supposing that the elements derived from each of these sources may be compounded in the central consciousness, just as the motion of a particle at any moment may be compounded of motions arising from Heat, Light, Sound, Molar Motion, and other forms of force. If the doctrine of functional indifference of the nerves of the special senses be confirmed by science, the synthesis of sensations from different senses is easily intelligible. And even if the doctrine of specific energies be truth, these energies are clearly only motions of matter which may be combined, and which indeed have all been evolved from a common source, and as Mr. Montgomery shews (*Mind* XVII.) *must* be combined 'somehow and somewhere in the organism' in a material substratum or medium; and such medium seems to me better satisfied by an atom or atoms than by, as he suggests, homogeneous inter-neural neuroglia, for the latter, unless it be taken simply as a con-

geries of atoms or phenomenal Egos, wants the unity and definiteness which seems required by the circumstances.*

Then, on the other hand, if the present atomistic theory of matter is to guide us, the suggestion of a composite consciousness not combined in any single monad does not seem likely; for assuming, as we now are, that consciousness is that of which a motion of matter is phenomenon, we cannot at present see how one motion can in any way be united with another except as motions of the same centre of motion, that is, ultimately of the same atom or atoms. How can a motion of atom A be bound up (except externally, by mere similarity, as in the motion of a solid mass) with the motion of atom B otherwise than either by the mutual action of the two moving atoms in each other, or by both motions becoming expressed in motions of a third atom? Nay, how can there be motion or change at all without some one thing moving or changing? The very notion of change implies a something which holds together the antecedent and consequent; a mere succession of two events, not in the same objects, cannot be called change except in the perceiving subject to which they are separate phenomena. Therefore the ultimate physical analysis of phenomena seems to say that two motions cannot be united as objective phenomena except in a single moving body; and this seems to shew that monads are not combined except in their phenomena; each monad combines in a manner all the rest phenomenally; but noumenally every monad is independent, and can affect others by causing phenomena *in them* which are *not in it*. Motions cannot be phenomenally, nor states of consciousness noumenally, combined, except either by fusion in a single motion of a single body, or by being united in time by a permanent moving body of which they are successive states. It has indeed been said that "just as motion passes from one billiard ball to another

* Here is an instance of how Metaphysic may criticise Physical theories; the real facts may disprove doctrines as to the symbols.

without ceasing to be the same motion, so consciousness may pass through many substances without losing its self-identity" (Caird's *Phil. of Kant*, p. 544); and in this sense no doubt all the motion of the universe is one, because any force may be converted into any other; but I deny that such motion is the same in any intelligible sense, for motion is nothing but a thing moving, and there is no entity which is passed on from one ball to another but only that motion of one produces motion of another. If it be suggested that this apparent objective necessity is only a copy of a subjective, and that the reason why we cannot imagine motions bound together, except by fusion or by succession in a permanent object, is that it is really one consciousness which binds together, and that fusion into a single state and unity through time in a permanent subject are the only methods whereby consciousness can bind together different feelings: the reply is that our consciousness is just what we are considering, and moreover is all we have to go by, so if it says that anything is necessary we must take it to be so.

Again, suppose it to be answered: 'Yes, but our consciousness,—though it will not allow that separate motions can be combined except in a permanent moving object, that is, without a temporal bond,—still, if that be given, does not reject a bond in space. Now a molecule or organism will hold together motion in time as well as an atom, and it holds it together in space too; nay, even the very idea of motion implies a something connecting two parts of space, for motion must be in space as well as in time.' Still we must reply: No doubt the motions of several atoms united in a molecule or body become in a sense one common motion, but at bottom it is only a number of different similar motions; and as to motion involving a connection of two parts of space such connection is not one of coexistence but of succession, a holding together in time only. It may be that the possibility of motion involves space, but the very meaning of this is that its parts

shall be outside one another and not capable of union except in time;—and similarly it may be that change of consciousness in a monad involves the coexistence of other monads (or at least of some external existence), which coexistence is the noumenon of which space is the phenomenon; but, again, the very meaning of this is that the other monads shall be external to it and not capable of union with it except through phenomena. A being which had nothing external to it, a monad universe, could have no motion (for motion is relative), no change, no consciousness; if it had any it would be in the mutual relations of its parts which it could never produce, and which so far as they existed independently of it would be not included in its nature and therefore not part of it. Besides, inner motions can never produce motions of the centre of gravity, or of the whole mass: that implies external action. The whole universe cannot move, and if motion be the symbol of consciousness cannot be conscious.

And if as regards the motion of masses the distinction be taken between the motion of an ordinary block or lump of matter and that which makes crystals and organisms, I do not know how I can still help saying that even the inner motion of a crystal or an organism is not, so far as I can see, anything (except in my mind which objectifies and unifies it for its own purposes) but the motions of its parts, although no doubt these parts are mutually related in a special manner; and that the motions which make crystals and organisms must, so far as I see, be the motions of their constituent atoms, each of which must separately be determined by simpler physical laws. This is confirmed by the fact that the laws of the mutual action of masses, whether regular or irregular, are just such as they would be if each atom of one mass acted separately on each atom of the other: take, for instance, the law of Attraction between bodies of unequal size, the velocity of each being proportional to the atom-power, *i.e.*, the number of atoms in the other. The forces of atoms working on one atom are not

affected by one another, but the total result is as if each had worked independently; in other words, the relation of atom A to B is not affected by the simultaneous relation of A to C or of B to D. The different actions go on side by side without interference. The only qualities which a body can have beyond the sum of those of its atoms, are the qualities which depend on the mutual position of relations of the atoms. But how can this produce a fresh Ego? That is not a relation, for it is not in any other monad, but a new noumenon. Relations among monads may alter the experience of another monad, as in the case of organisms and animal procreation, but how can they create a monad which did not before exist? Still I confess that a crystal and still more an organism is one in a sense in which a block of stone is not; and that I do not at present fully understand the cause of their difference, though I see that its results may be expressed as unity of aim or co-operation to a definite object; and that it may be that this unity is something noumenal or has some noumenal counterpart; and that when I learn more completely the physical meaning and process of organisation and of the formation of crystals from molecules and of molecules from atoms, and still more when I get (if ever I get) some conception of the evolution of physical atoms from a simpler elemental substance, of the discontinuous from the continuous, the many from the one—I may then come to see that even an atom as a centre of force, which I conceive as a mathematical point, involves a holding together of co-existent elements in space, and that its motions are in some way a complex of simpler motions. If so, I may come to understand how there may arise motion of a body which is not the sum of the motions of its parts (for an atom has no parts in that sense at least), and how the same or a similar process may take place in all the successive stages of physical individualisation, and that there may be a conscious unity in molecules, crystals, organisms, societies, in worlds, solar systems, stellar

systems, the universe. If we could see how conscious centres are originally evolved we might see that centres of centres may be evolved in the same or some analogous manner, and that this evolution may go on side by side with and in addition to the evolution of mere rearrangement of the existing centres. Still it is difficult to imagine how the higher centre could be anything but a *centre*; that is, noumenally, numerically different from its components and phenomenally a new point, centre of force, or atom; and clearly no personal consciousness could unite or combine other like consciousnesses, for this is the very meaning of personality.

No doubt, however, there is another conception of unity among monads to which any knowledge we may attain of the physical evolution of atoms seems almost sure to lead us; the conception of an all-pervading continuous consciousness or feeling from which all monads are evolved, and which is not only the substance of which they are made, but the instrument or medium of their mutual action—phenomenally force and the transmitter of forces or motion, noumenally the vehicle as well as the substance of consciousness. To some such conception we are vaguely led by the consideration of the complete interpenetration of natural forces: every atom of the universe stands in, or even rather consists of, relations to every other atom: every event is a function of the whole, and the whole course of nature is nothing but a continuous transformation of a persistent quantity of energy, a perpetual redistribution of it in different forms and shapes. In truth there are not many simultaneous events, that is only a device of ours to make examination easier; there is only one event and that comprehends the whole universe. At any rate this is the way in which Science makes the universe intelligible to us. Is there more in it than this? Is this unity and transfusion of energy anywhere but in our minds? It is a oneness of many, for if there were no many the one would disappear: without motion there could be no manifestation

of energy, energy *exists* only in its transference. Is it not then a mere abstraction, a 'form' of our intelligence? Can we say that there is such a thing in itself as energy any more than we can say the same of space? I confess I do not like to place a limit to the future conceptions which Science may give us, but at present this notion of energy as a continuous existence not gathered into centres seems to me unattainable; without conflict, how can it shew itself, and how can there be conflict except in a centre? And the same seems to hold of consciousness; a continuous consciousness pervading all nature seems to me an inconceivable hypothesis. No doubt in terms it is describable. Elemental feeling would on the rise of centres from whatever cause become feelings united, that is, relation; and feeling would give birth to perception or thought. But to such an elemental Psychoplasm or 'Mind-Stuff' even if conceivable we must at any rate beware of attributing any of the higher attributes of consciousness, personality, intelligence, will, emotion, perception: of it we cannot even say 'it exists' for there is no 'it,' only 'there is feeling'. Its existence is absolute and noumenal, only objective existence it has none, not even the veriest rudiment of objectivity, change of consciousness, or absolute relation. It looks like the substance of Spinoza; we have resolved into it both mind and matter, noumena and phenomena, all objective existence and even the rudiment of relation; and how are we ever to get them back again? There must have been some condition of the original ether, some arrangement of its parts, some laws of their action, which account completely for the universe as it now exists; this much we can say, but when we try to go further we get into inextricable difficulties, naturally enough resulting from the attempt to describe objectively a stage which was completely pre-objective. What is the meaning of motion without moving particles, of energy unfocussed and at large, or how could motions or forces be

redistributed except through centres, or what is the meaning of will except in an Ego? These are difficulties which it is perhaps hopeless to surmount.

To escape this conclusion and to assign to the universal consciousness the characteristics, not only of feeling, but of thought, of an Ego, I can imagine several arguments or suggestions. The first is suggested by the reflection that here again, through the widest extension which we can imagine of physical science, we are brought back to the same proposition which we found to be the ultimate result of internal analysis, when we strip of all form which constitutes objective existence, and go down to the absolute unqualified substance 'there is feeling'. May it not be (we think) that even if our own consciousness is a series in one dimension only, without any co-existent elements, still as in it we rise from the above-named proposition to the conception of a temporal series of feelings bound together in an Ego, so in this metempirical world which we have imagined to underlie the physical universe of space relations, we may reasonably imagine an Ego, not of sequence, but of co-existence, an experience of which the form is not time, or not only time, but another species of relation, namely that which we know phenomenally as space—a mind which binds together the totality of space as our mind binds the totality of time—a mind which is nowhere because everywhere. *A priori* a spacial principle of unity seems as reasonable as a temporal. In fact, may not this be the noumenal counterpart of space which we before saw reason to say must have an existence non-phenomenal and anterior to perception as a condition or form of co-existence, although we had difficulty in saying that it existed noumenally or absolutely in the strict sense, because a condition or relation can not have any noumenal and absolute existence except when its terms are united in a combining consciousness. If, therefore, there were a Consciousness holding together in Space, the noumenal and absolute

existence of space would be accounted for exactly as our theory required. To this I must answer first that *a priori*, that is, to my mind, a temporal principle of unity does exist, but a spacial does not; or, if thought seem to be such a principle, then thought is derived from and composed of sequences; and indeed, so far as space differs from time, it had no existence anterior to the separation of self and not self, except as a potentiality conceived by an *ex post facto* intelligence. Moreover, space or extension is divisible, and two adjacent points have no unity except in the perceiving mind. For forces to be united or combined they must be applied mediately or immediately to the *same* point; and for states of consciousness to be combined they must not lie side by side contemporaneously, but be brought into the same centre, which must clearly be single and without parts. Secondly I answer that, *a posteriori*, I see no symptoms of unity in the universe except that which I arbitrarily put there for convenience of study; and thirdly, that if such a principle of unity did exist, to call it an 'Ego' would be but a misleading metaphor, for the essence of an 'Ego,' of Personality, is memory.

The second suggestion which I imagine is, that if (as is allowed to be possible) organisms, and even monads be a holding together of consciousness in space, these may in turn be held together in like manner; for instance, that we may be really in a position like that of the inferior monads which constitute our organisms with no knowledge of us, such as may be for instance our different senses, and that there may be a cosmic Ego as much transcending us as we transcend our component monads, to whom 'beams of light are like nerves stripped of their albuminous sheath,' or to whom gravity is a mode of conveying disturbance from the periphery to the central mind. To this I must answer, first, that I see no universal organism which bears any resemblance to my body. Moreover, if consciousness goes with life and or-

ganisation, life depends, as Schopenhauer has remarked, not like the existence of inorganic bodies on continuance of matter under changes of form, but on maintenance of form through changes of matter: the universe therefore cannot be alive or conscious, for it comprehends all matter and can receive no 'food' from without. Besides, as Schopenhauer also remarks, the organic is organic in its smallest parts; if, therefore, the universe were an organism, its parts would be organic. Secondly, even if there were such an organism, it would be merely a superior monad, not a universal consciousness in which the lower ones were united; just as I am a monad superior to the other monads of my organism, and have my experience affected by their mutual relations, but am not in any true sense their union. The universal consciousness would be only a general effect of the lower, not their unity: in this sense, every consciousness is to some degree universal.

If I am asked, 'may it not be that there are *in* your consciousness inferior Egos whose series consist only of certain beads in your string, strung on separate strands, and that your Ego may only be a stringing together of these different component strands? Each state of your consciousness is enormously complex and, if it were dissociated into its elements, would form materials for innumerable conscious series, which may all the while for aught you know be running on alongside of each other as separate Egos *in* it. This may easily for instance be imagined of the separate senses; there may be, indeed we have good reason to say there *is*, a visual series, an audible series, a tactual series, each continuous and each independent of the others, and only connected so far as some of their links enter the central consciousness. Take for instance the series of sound: we have good reason to assert that the auditory nerve is in all waking moments in a state of continuous vibration: but clearly all these vibrations are not phenomena of states of the *central* consciousness, for *we*

are not always hearing ; what then do they mean ? Surely they must denote a conscious monad of hearing, some of whose states alone are taken up into the central Ego. Or why may it not be that some of your states of consciousness are links in another series which also includes states not included in yours at all ? There is nothing to show that one feeling may not be a link in different co-existent series, may not in fact be a part of two or more co-existent monads. If so, the higher monads may be in truth a union of the lower, and there may be a universal Ego in whom all feeling is united.' I answer, nothing in my experience can of course *prove* to me that my experience is not a part of some other ; but if the analogy of physical science is to be employed such a hypothesis is unreasonable, for physical science clearly shows that the same motion cannot be in two bodies or atoms : two atoms may of course have similar motion, but to have the *same* motion one would have for the time to become the other, or the two would have to become one, a clear physical impossibility. The impenetrability of atoms teaches us (if we use this method) the impenetrability or immiscibility of conscious series. The circumference or boundary of all objects is the same, the universe, but their centres are necessarily different, otherwise they would be fused into one.

I may also repeat what has been already said, that it is a mistake to suppose that there is any single consciousness in a man which is his 'Ego' except so far as one monad may be in a more central and commanding position than the rest, and that it is impossible for different conscious states to be combined otherwise than in a monad, or centre, either phenomenally or noumenally. The mere mutual action of different atoms or monads produces no unity except in a perceiving mind ; to attain noumenal unity between two feelings they must have a common centre. For if not, where and by what are they to be felt ? A man, a nation, mankind, and the universe, are in this respect all alike : in the last instance there

is no reason to suppose any difference from the other three. Each of them is a unity only as compared with other objects outside it, only phenomenally; noumenally, in itself, it has no unity, it is a congeries of parts. Consciousness, as we can conceive it, is not extended; and we cannot conceive of conscious unity combined with co-existent plurality of parts as in space. If this be so, the only conscious subject is a monad. To speak of consciousness as a reaction of the whole organism, as Mr. Lewes does, and yet to speak of it as single, is a delusion; the organism is to each of its monads only a part of the external world through which all influences from the rest of it have to pass in order to reach the particular monad. No doubt, therefore, the form and nature of every state of consciousness depends on and is moulded by the organism in its passage, but it is felt at single centres. No doubt also the organism reacts as a whole, but the cause of that is not common consciousness, but mechanical connection, or that connection among the monads of which the mechanical is phenomenon; just as a steam engine acts as a whole, yet nobody would assign to it any unity of feeling. The consciousness of the body is of course in a sense its inner nature, only it is multiform not one: the body may be one in a perceptive consciousness, because it is a number of phenomena united in that consciousness, but different conscious series are not one.

Again it may be said that if the universe be not conscious as a whole, then it is not really one at all, and its unity is phenomenal only,—an unbelievable hypothesis. I answer that its unity, if it have any, may lie in the future not in the past, that its evolution may be the development of the one from the many. If it be asked, how can the mutual relations of the many be maintained constant unless by something comprehending and transcending them all? nay, how can they affect one another at all except through a '*fons commercii*,' *i.e.*, not some mere name for the fact of action such as 'Force,'

—a potentiality which is nothing but its manifestations—but an actually existent being or substance? I answer that the way in which change is communicated from one monad to another, is a mystery which we cannot explain, for it is an ultimate fact; force and motion we must take as irresolvable data; we do not see how they work because they are already the simplest phenomena we possess. A *fons commercii*, therefore, is unnecessary, for action between adjacent bodies is as unintelligible as action at a distance. Action through Space ought not to be incomprehensible, for space is itself only the form in which we perceive bodies in mutual action, and a body *is* where it works; the difficulty is in understanding how one body can act at all on another, or how action comes to be centred in different points. Hence it does not help to imagine some machinery of a third body or substance through or in which the two former act on one another: for one action we have then to explain two. But further if a *fons commercii* be needed, the *fons commercii* to which the physical method points is the noumenal ether; and this must be only a raw element of consciousness without ‘mind’ or ‘will’ for these latter involve a centre.

Besides what could be gained by starting with a single mind? Why is succession of the same conscious states easier to understand if they are in one mind than if they are in many? Given succession in one mind, why not in many? And an ordered succession of conscious states in different percipients is on the doctrine of Pre-established Harmony sufficient to explain the universe. Besides although this would explain the One, the difficulty would then arise—Whence the many? How can the one produce the many? And even if the many are illusions, whence the illusions? There would be wanted a further mind to explain the relation of the one mind to its many monads, and so on for ever. The hypothesis of monadism is the best way of stating the facts; unity of substance containing and evolving plurality of num-

ber (which from their common origin follow common laws), and becoming again by organization one. If it be thought easier to explain causation among the successive states of one substance than of many, I am content to allow an original substantial unity to the universe, though I refuse to allow that such unity had then any conscious existence. To hold together the flux of phenomena into persistent objects, requires no doubt a persistent consciousness to which such objects may be referred; but there is no reason to think that objective existence has been eternal *ἐνεργεία* (though of course it was always there *δυνάμει*), or that it may not have been evolved or actualized in the way suggested. When once evolved through self-conscious monads, the only remaining difficulty is, how these self-conscious monads are kept in conscious mutual relations to each other and to other monads; and that seems better met by simply postulating the fact,—not of course by positing laws as entities apart from and acting on the monads observing them (like state laws they exist only *in* the monads subject to them), but by making the mutual relations part of the definition of the monads (the origin of which is evident if the idea of the evolution of monads from a continuous force be accepted)—than by the hypothesis of an all comprehending intelligence relation to which fixes their mutual relations, &c., of a single infinite being of which they are all parts or modes. We simply postulate the fact of the existence of phenomenal units or things; for things are these mutual relations; to ask how they come to have them, is to ask how it is that things exist at all,—an absurd question. Of course mutual action is in a sense possible only among parts of a possible whole, for the mind which perceives the mutual action may look at the agents as thereby united into a single system; but the whole need not be self-conscious; nay, it need not (so far as I can see) be actually known as a whole at all, only it must be capable of being so known, and the actual knowledge of the universe as a whole, the *ἐνέργεια* of an omniscient omnipre-

sent mind, seems to me a prophecy of evolution not a rudimentary axiom. A Being can be one only by bringing together its parts into a simple conscious object (for unity is a relation) either in its own or another's consciousness: the latter only gives phenomenal unity, and is besides here out of the question: the former which involves self-consciousness is, so far as our experience goes, a late product of evolution not its elementary form; in consciousness, we know, one state or feeling precedes or causes another, long before there is any conception of a subject or Ego, and when this conception is attained it does not in any way explain the nature of the causative action. Similarly in the universe we must reasonably believe that causation precedes self-consciousness or unity, and even if not we do not see how unity of being explains causation, or makes it in any way a more intelligible fact.

It may perhaps be said that the fact that a man can know himself as an individual shews that he must be able to transcend himself, that in fact "there must be in some sense a *universal* consciousness—a consciousness in general—to which the consciousness which belongs to him as an individual is related and by which it is interpreted (Caird's *Phil. of Kant*, p. 335). This is the same as the universal self of Professor Green, and the answer simply is that it is in fact the Ego considered as the sum of experience; the self which is transcended and known as an individual, being the developed subject, or logical apparatus and process, and the bodily organism. But, further, if we admit the metempirical hypothesis of other individuals, then no doubt so far as the consciousness of different monads agrees it is similar, but we have no right to say that in any other sense it is the *same* or *universal*. I have no more reason to assert a universal thought, than a universal life, because the same principles of vitality seem to govern different bodies, or a universal motion, because the *laws* of motion are universal.

But it is said that if there be a universe or complex of objects common to all minds, and if a mind must recognise itself in its objects or be capable of so recognising itself, this common object in which all minds recognise themselves must be itself self-consciousness, and the finite minds must be modes of it. But the answer is that even a self-conscious mind, in recognising the world of objects as part of itself, recognises also a special relation of itself to that world, in a body, which it does not share with any other mind, and this relation constitutes its identity: such other consciousness as it infers in relation to other portions of the world of objects, it infers to be similarly related to a body, and of any consciousness not so located it can form no imagination and has no evidence whatever of its existence. Self-consciousness though in a sense it traverses or transcends space, in another sense is located in space; for an *extended* consciousness, a consciousness symmetrically related to the whole world of objects, we have no warrant whatever. Besides the mind sees itself in the world of objects only so far as that world is thought of as an experience of the individual mind, but no two minds have the same experience, and therefore no two minds see themselves in the same world. We cannot even tell that the sensations of two men resemble one another, but only that the relations among them are the same. What to me seems red might to another mind seeing through my body seem blue, and we have no means of discovering whether this is so or not. The idea that the likeness of another man's body and actions to mine shews that his sensations must be like, is a fallacy; for his body and actions are like mine because both are parts of my experience and therefore governed by the same laws: but his body and mine as parts of *his* experience, though there again they are like each other, may be altogether different from their counterparts in my experience. Another man's world and mine may be completely different; if only there be a constant relation between them and between their respective laws, that relation

need not be identity. But even if all minds saw the same world from different points of view, and if every point of view had its own mind, that would not go to prove a universal mind : if the unit minds were parts or modes of this absolute mind, they would surely feel such relation : if they do not feel it (as is the case) they have clearly no right to assume it.

Still no doubt this is open to the reply that the universe not only cannot be known as a whole, but cannot exist as a whole without a mind comprehending all its different monads ; relation has no noumenal existence except as the coexistence of two feelings in a combining consciousness, therefore if there is no combining consciousness to the universe its parts cannot be related. And though the relation of monads *inter se* may be explained as a short symbolic statement of the hypothesis that phenomena have relations and come from noumena, even this hypothesis assumes that noumena affect each other outside of, and as the condition of, *perception* by each of the others, that is, that they have some noumenal relation, which can only be as parts or constituents of a combining noumenon, just as our different sensations become relations when combined in our consciousness. Moreover this combining consciousness must be intelligent, or at least capable of intelligence, for it contains *ex hypothesi* sequence of states and perceivable relations among them. And if I answer that the mere fact of noumena affecting each other through phenomena shews that they are not, or that we need not suppose that they are, related otherwise, I shall be told that the same is true of our sensations, which affect one another phenomenally (as when I imagine myself to see the vibrations of my auditory nerve or hear those of my optic nerve) and yet are bound together in my consciousness. And if finally I take my stand on the fact of the different phenomenal series in conscious monads and their relations, and refuse to make any hypothesis as to corresponding relations of noumena, except by saying that noumena so exist as to be capable of becoming

related through phenomena, I shall be told that we have long ago left the region of facts, and that the only way to form a consistent and intelligible conception of the universe is to give a ground for the mutual action of its parts by uniting them in a common centre.

Indeed I confess that in some moods if I try to realise to myself the meaning of causation (I do not mean the mere sequence of phenomena but the mutual influences of noumena), I find it hard not to imagine that there is something in this mutual action of different noumenal beings, corresponding to that which we know to exist in the mutual action of different noumenal states, something which seems to throw a vague light on the meaning of that action, *viz.*, that each state has in some way to accommodate itself to the condition of co-existing with others in the same consciousness. May it not be that there is a great universal Ego which stands to me and to others and to every conscious state in the universe, as my Ego stands to my states? The connection in myself is a mystery, I cannot understand it: but may not the whole universe be a similar mystery? May not this be the meaning of causation? But then comes the reflection that it is not with beings as with conscious states; the former seem wholly outside each other, affecting each other only in phenomena, whereas the latter interpenetrate each other in the same inner experience. Again the question arises, can it be that my different states do not only enter into union in my consciousness, but, *by so doing*, are affecting each other phenomenally, so that my whole Ego may be composed of smaller series or Egos standing to one another in a relation vaguely analagous, at least, to the relation between me and you? If so, may there not be a greater Ego which stands to me and you in the same relation that each of us does to our component Egos? May we not all be constituents of the Divine Ego, and may not our wishes and thoughts be somehow somewhere bound together to form a mighty chain of complex Thought, from which each of

our thoughts differs as far as each of the little simple feelings which are welded together in one of our concepts, differs from their combined product. And if separation in space seem at first to disprove any such theory, we must remember that space is only a form in which we conceive co-existence, and there is no reason why,—if our consciousness be really composed of different parallel series, each of which exists also by itself,—the phenomena caused in each of these by the rest should not be co-ordinated in the form of space, though we know that they all co-exist, *in us*, in an unextended point or rather out of space altogether. This might well be so with two monads which seem separated from each other by space; they may also co-exist out of space, as our feelings do in our consciousness. And perhaps it is some help to this if we consider that every atom as a centre of force does in fact exist everywhere through space; and that each has equally a right to consider itself the centre of space. Space is only the mode in which each represents to itself the co-existence of the phenomena of others, but the real co-existence of the noumena may be in some very different form, as for instance in that of states of a combining consciousness. Such thoughts as these sometimes force themselves upon us with almost irresistible power. But when we come to calmer thought, although I do not think such a notion of a great All-One can be strictly refuted, still, if I stick to facts and evidence, they seem to me to lead not so much in the direction of a combining mind, as towards that which we can only describe (however difficult it be to give such a description any definite meaning) as an undifferentiated mass of psychoplasm, an 'all pervading sentiency'. The fact which has to be explained or taken in is the evolution of a plurality of units in mutual relation, and this seems to me more reasonably expressed by the hypothesis of the evolution of a plurality of units, from that which is neither one nor many, though it must be conceived as containing the germs of both,

than by the hypothesis of the evolution or 'creation' of the many and their relations from the one. It may be that the universe becomes one in becoming many, or through becoming many, as is the case with our individual consciousness, but the complete attainment of this unity, seems to me to be in the future not in the past. Whether the ultimate unity may take that form which we know as personality, or some higher form to us unknown, that is a question on which conjecture is fruitless. And finally I may add that there does not seem any reason why the universe should be one; there is no virtue in unity except to a combining intelligence, and therefore, to argue that it must be one and therefore needs a combining intelligence, is a mere *petitio principii*. This is what is meant when we are told that not experience or understanding (Verstand) but reason (Vernunft) gives us this principle of unity, for reason in this sense is only the *a priori* application of the principles and ideals of our own nature to existence generally; and if it be objected that we and our ideals are made by the universe, and must therefore fit it, I answer that unity as an *ideal* may be true but not as an element or origin.

But it is said that the 'belief in the nature of things is the one mainspring of all science and the condition of all sound thinking'; that the idea of uniformity leads to that of unity, 'the one and inflexible nature of things'. But surely the belief in order does not involve a being underlying that order; like all relation, order is in the perceptive mind, and the belief in it is only that things are intelligible. Again uniformity is very different from unity; that two things are alike does not prove that they are one; the various phenomenal manifestations of force clearly differ in time, and to say the universe as a whole is not in time is absurd: the universe at any moment is complete and there is no room for another. Moreover the various phenomena are separate in space; how can the mere fact that they can be thought of

together give their sum a single independent existence? The order and unity of the universe are in our minds, and the fact that we believe in them does not mean that we believe in their existence elsewhere.

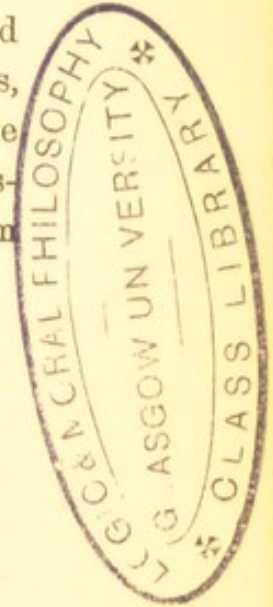
Nor does there seem to me anything solid in the argument from design and unity of plan in the universe, for every universe obeying fixed laws would necessarily seem to itself designed and single in plan, inasmuch as its later stages would be developed from the earlier and thus appear to have been their final cause, design being only the concurrence of many causes to one complex result; and the higher beings in any universe would be sure to lay stress on the significance of their own nature and the importance of their existence and welfare. No universe is *in itself* better than another, for good-in-itself is a contradictory idea, good being relative to the attainment of some end, and ends being relative to the being of whom they are ends; each universe is good to itself, therefore so far as it attains its own end, that is absolutely, and to its creatures so far as their ends coincide with its. If therefore every universe must wear the appearance of design and unity whether it was originally designed or formed on a single plan or not, and if we have no reason for distinguishing in these respects our own universe from any other, the argument from design seems to come to nothing.

Here we must stop. If we choose to accept as our guide not only well ascertained physical facts but those anticipations of knowledge which are called Religion, what is our final picture of the universe? An original mass of continuous impersonal consciousness or mind stuff, becoming broken up into centres or monads mutually affecting one another according to fixed laws; then a process of organisation producing in these monads, or in higher monads organised from them, certain powers of memory and association, through which is gradually evolved the objective world of phenomena, or matter; which objective world becoming more and more a

perfect likeness or symbol of the actual noumenal reality, is eventually a complete knowledge of the universe by and in each of its constituent minds; more than this, each monad learns to associate its own consciousness with the phenomena of all other monads, so that each recognising itself in all the rest, the whole is recognised by each of its parts and each of its parts by all the rest. Then further if the separate monad consciousnesses be organised into a central universal monad, the whole universe shall become completely self-conscious, a mind omniscient, omnipresent, omnipotent, absolute, eternal, infinite: the universe will become God. Nay, even now, if we adopt a true Idealism which places existence in an ideal knowledge, the universe is the thought of God, and only as such thought has it objective existence: and human minds also are thoughts of God, they are the mind of God in each man striving to realize the perfect and absolute existence. Surely this is no mean or ignoble religion, that each of us should feel himself a unit in the Divine existence, co-operative in the mighty evolution of Deity. This or something like this is Physical Religion, a curve ever approaching the line of its asymptote, Science, and becoming one with it at the infinite distance where faith is swallowed up in sight.

In this our religious creed we may note several points of similarity to some metempirical theories which have paid little heed to Physical guidance and evolved themselves from reflection on Metaphysical data: so far as this resemblance exists, I claim it as a verification, so far as is possible, of the general reasonableness of our results, and a testimony to the value of our method which leads to the same results with so much greater directness. If objective truth be the product of thought, the analysis of a process of thought as itself an object to Reflection, will shew as the principles of objective truth. Again, if thought be the product of evolution from intuition or phenomena, and its laws copies of phenomenal

sequences, the observation of the one will give information as to the other. According to our view, both these suppositions are facts, so that as physical law actually known is the product of thought, and thought is the product of physical law as potentially knowable, we see at once how Physic and Metaphysic contain the same principles in different shapes, how 'forms of thought' are 'laws of nature,' and how we may use each of the two methods the Physical and Introspective, as the case happens, to verify results obtained from the other.



CHAPTER X.

PHYSICAL EVOLUTION.*

WE seem, then, to have arrived at a system of Monadology, based on the Physical theory of Atoms; for though we do not deny the possibility of an ultimate resolution of atoms into a continuous moveable extended, which would of course entail a corresponding resolution of monads into a continuous conscious (using this word, as before, as a '*nomen generalissimum*'), still, in the present state of our knowledge, we must be content with the limits which seem to confine our powers of conception, namely of motions and forces united in centres called atoms, and of conscious states united in centres called monads;—the former being the phenomena of the latter in, and objectified by, a perceptive intelligence. How, then, from these elements can we get the universe of thinking beings and physical objects?

The answer to this question is easy to give in a general form; it is the single word Evolution: but to give it in all its details would involve the complete knowledge of all the facts, outer and inner, physical and psychical, that have ever happened, a perfect Cosmogony and a perfect Psychogony in perfect correspondence. By the Physical Method alone can this enormous problem be attacked, for by the Introspective

* [This chapter, as it stands, is unfinished, and its place is somewhat uncertain; it is however inserted here because there are references to it in Chapter XII.]

Method we can win no farther back than the region of latest development. The various stages are allotted to the different sciences: the broad aspect of the original distribution of atoms, as well as the subsequent consensus of the whole, to Astronomy, of which Geology in its widest sense is the branch that most immediately affects us; the mechanical genesis and the mutual relations of the simpler forces to what is called pre-eminently Physics; the chemical genesis of molecules of increasing complexity to Chemistry; the different special forces of Light, Heat, Electricity, and the rest, each to its own special science; the beginnings of life and the development of organisms to Physiology and the other Organic Sciences; the relations which become established among organisms to Sociology and the Political Sciences; and, finally, the ideal relationship of all things and all beings to each other, and the complete attainment by the universe of a perfect self-knowledge, in which evolution, so far as we can conceive it, will finally end, to that study which is the crown and unity of all science and to which it points: Philosophy shall we call it, or Religion? That this is all one mighty chain without break most of us believe. In one short hundred years how many links have been discovered that men aforetime never conceived, and still the process goes on over the whole face of knowledge far faster than the power of any one student to keep pace with it, till men's hopes and guesses running ahead of positive proof have seemed to penetrate the inmost secrets of nature.

To give even the most meagre account of the more recent discoveries of science which have connected together the different forces of nature and the different stages of its evolution, would take volumes enough to fill a library. Luckily that is not our present object, but rather to collect a few of the larger principles which seem to characterise it. Now the inner evolution of conscious states cannot, as I have said, be carried by direct internal observation further back at

any rate than the organic world; some account of it from this standpoint will be given later; but at present, in dealing with evolution generally, it is the physical principles that will most concern us.

First, the starting point: motions of atoms, or moving centres, whose motions follow fixed laws depending on their distances in space. Now, here, great caution is necessary, and we must be clear as to our position. Of course, if we are considering the starting point of all existence, there were no such things as atoms, or motion, or space; for atoms and motion are nothing but objects, and space nothing but a form of objectivity in a perceptive intelligence; and as yet no such intelligence is assumed to exist, noumenal existence being as yet, on our hypothesis, confined to simple changes of feeling in unorganised monads such as could give hardly the smallest analogue of perception. When, therefore, we take as our original phenomenal datum a number of moving atoms, it must not be supposed that we consider them to have existed as atoms, or as moving, or as in space; but only that we start with a number of noumenal centres of consciousness—changes in whose inner states are mutually produced according to certain changes in their mode of coexistence, which change of inner state is itself a change in the mode of coexistence, and therefore produces further changes *ad infinitum*. The changes which a change in one monad produces in others are the phenomena of the first change in the other monads, and would, if the other monads were perceptive, take the form of atoms and motion in space, or some other analogous objective form or forms; and as it is impossible for a thinking man to think about these changes, or express the results of his thought to others except in some such objective forms, we must perforce in describing these pre-objective phenomena use the language of these forms as symbols. As perception adds ultimately nothing to what is given, either in form or matter, but the symbols really at

bottom make themselves, we may take it that the relations of the symbols correspond with those between the original phenomena out of which the symbols are made. In other words, we may say that the atoms and their motions in space already existed, but for the want of an objectifying monad: they were then as feelings in monads following certain rules of sequence, and the rules of this sequence could be in no way altered by the accident that the impressed feelings did not meet with a subsequent objectifying process at the hands of the receptive monad. We may treat them therefore as if such process had been applied, or to express what I mean perhaps better, we may apply the process now to our idea of the old impression, and say we have the idea of atoms moving in space as the beginning of things. But we must never forget that atoms never began to exist as such till the first conception of them arose in an intelligent monad; before that, and even now except to such a monad, they were only the several unperceived states which the monad, of which they were phenomena, caused in others.

Given, then, motions of atoms, what is their nature? what is the First Principle of the laws of these motions? Now to this we seem to have a clear guide in the great physical laws of the Persistence of Matter and the Persistence of Energy. The motions of atoms must clearly be ultimately regulated by the two rules, that the existence of every atom is to be retained, and the amount of atomic motion, actual or possible, is to be constant. Now, of these two principles the first alone can be thought to guide the individual atoms or their motions; the latter has no existence, but as a general relation among all motions of all atoms taken together, and can be a guide only to some reaction following on a combination of all such motions, such, for instance, as the theory of a man of science. We must reject this as a principle which could affect the motions of a number of independent atoms (though by a combining intelligence it

may very likely be seen to be a result of the continuous application of such a principle) : let us return therefore to the other, which deals with each atom in detail. It is this: the motions of each atom under external stimulus must be of such a nature as shall preserve the existence of the atom.

What is this but the Law of Self-Conservation, of Persistence, "*in suo esse perseverare*"? On this law the whole reality of the phenomenal universe rests: that under certain conditions each atom should move in a certain direction and with a certain velocity, is the basis of Nature's Uniformity on which all rational study of it rests, and which in the objectified Nature of science is assumed and avowed as its only foundation.

It may indeed be suggested that it is possible to conceive that even this is not the most fundamental law of motion, or rather that if it be the earliest *law* it was itself derived from an earlier lawlessness by means of the principle or rather the fact (for the principle is only an abstract expression of the fact) of Natural Selection, whereby all the atoms or combinations of forces which did not follow the Law of Self-Conservation would become destroyed and disappear from existence, or at any rate from further *individual* existence. By this means all such may have long ago disappeared, so that the Persistence of Matter may be now an accurate, or approximately accurate, statement of the fact. Such speculation, however, seems to me of little value, at any rate until physical science enables us to form some notion of the origin of atoms: it will be better to take the original atoms to be like those at present existing, and for the present to inquire no further.

One of the earliest stages in Evolution is the phenomenon of Cohesion of Atoms into bodies, which may perhaps be founded on some advantage in mutual protection against foreign interference. The various forms and complexities of this cohesion would be the origin of the different Molecules

of the substances which Chemistry calls Elements, each of which would therefore have a special form and special properties dependent on the arrangement, and quality of cohesion, of its constituent particles. From this we naturally rise to the combination of these chemical units into molecules, composed either of similar units, or of two or more different kinds united. Then to more and more complex molecules, in which simpler molecules combine, as they themselves were formed by the combination of atoms. These are capable of more and more easy variation by substitution of new units for old, either of the same or homologous nature, as in the case of the hydrocarbon compounds, and we get at last to molecules, in which variation by loss and assimilation is the rule. Here we are in the Organic World, and the same process goes on from protoplasm to vertebrate, from individual organism to social. As the different parts of the protoplasm molecule stand in different relations to the external medium they are differentiated, and gradually form rudimentary organs with special functions, the activity of which is still made to subserve the common organism. Thus by means of the increasing complexity of relations the differentiation of organs is perpetually extended, and this renders necessary a corresponding integration to prevent the dissociation of the organism.

This Law of Self-Conservation, then, not only stands at the beginning but runs through the whole process of Evolution. Indeed it becomes more conspicuous in some of the later stages, for instance, in the region of Organic Life, so that it will seem to many a paradox to speak of it as existing farther back. This seems to arise from two causes; first, from the fact that the possible motions here being exceedingly complex, and accordingly more capable of derangement, the action of natural selection has much more play, for it can separate much smaller differences, and can act much more quickly; and, secondly, from the fact that here the

law becomes for the first time perceived and consciously helped forward. But as to the latter, which is sometimes represented as comprising the whole purview of the law, the phenomenal accuracy of the law seems to me not affected by the question whether the inner process in the organism, of which the reaction is phenomenon, is or is not perceived, except to this extent, that the perception of it implies a structural, or quasi-structural, modification of the mental organism, of which the corresponding material structure may act as a machine for facilitating the operation of the law. And not only does this fundamental law of motion run through all Evolution until it finally becomes self-conscious in the Egoism or pleasure-seeking, which is the unconscious foundation of morality, and is brought to perception by a true Ethic; but it applies to all the successive individual organisms or unities which are so characteristic a product of the evolutionary process. Atoms, molecules, organisms, societies, all follow the same law. The higher good is thus gradually raised above the lower; Altruism (for instance) or Utilitarianism, which is the conservation of societies, the end of Politics, overshadows the Egoism on which rests the morality of individual men, and already shows occasional symptoms of fading into a higher Humanism. And how many stages may there not be beyond? Yet the higher good always comes from the lower; the lower subserves the higher, and in it finds its own greater perfection, until at last we reach the ideal of Evolution, the absolute or perfect good, that is, the Good of the Whole resting on the harmonious agreement of the good of all its parts. . . .

CHAPTER XI.

EXISTENCE.

THE time has now come for a general view of our position. Now, in the first place it must be clearly admitted that the whole system is merely a theory, and further, that it is not verifiable in the same way as physical theories are, by direct observation and experiment, for the simple reason that each being can observe only his own states and the hypothesis here relates to the states of others. To this extent we must all be Idealists. What then is the justification of Metempiric? We have discussed this question at some length, and the result seems to come to this, that the validity of Metempiric rests on the assumption of the intelligibility of the material universe and of our own inner nature, feeling, reason, volition. If these be not ultimately intelligible, if our nature be in hopeless contradiction with a gulf for ever fixed between mind and matter, consciousness and its objects, if reality be opposed to thought, or thought itself ultimately inconsistent with itself (as Dr. Bahnsen and others persuade us to believe), then indeed would thinking be a useless foolish occupation, an empty puzzling over a riddle which has no answer. But, as a matter of fact, we all believe that there is an answer; and almost every action of our lives, and every emotion of our hearts, is grounded on metempirical assumptions which seem necessary to fill up our small experiences into an intelligible form. And when we come to look for a

more elaborate and comprehensive theory of experience in general, we still find these metempirical assumptions dogging our steps, as inevitable now as in the details, and when we arrive at a final system which embodies Metempirical theories, we justify it on the principle that such theories are necessary to make experience intelligible to us, and to make our mental and moral nature consistent. They are supplements added by thought to fill up the deficiencies and one-sidedness of the sensations of an individual, and enable it to transcend the individual limits and reach the truths that are common to all. They are clearly necessary parts of any attempt of the universe to become self-conscious in one of its units.

But clearly it is necessary to any plausibility in the use of these unverifiable hypotheses as to existence beyond our consciousness, that the 'existence' which we assume there shall be like in nature to that which is immediately given to us; we are therefore at once shut out from all such absurdities as the existence of material objects, or of objects at all, outside a perceiving mind, or as that of an Eternal Subject which evolves from itself the varieties of the physical universe. No object without a subject, no subject without an object. Any metempiric which does more than numerically multiply, or vary in degree, existence such as we have it in experience, or which postulates beings whose qualities bear no resemblance to those of experience, must be at once rejected, and no existence must be assumed but that of which in one instance and in some degree, either greater or less, we know or can infer the actuality in ourselves. It is the ambiguity which has always prevailed in the meaning of this word 'existence' that has caused perplexity in every proposition involving the words 'exist,' 'be,' or 'is,' that is, in nearly all propositions whatever when taken from a philosophical point of view.

We are thus brought to the conception of the existence beyond our consciousness of other conscious states and series, and these must stand to each other in relations corresponding

to those under which their phenomena are related in our consciousness. We cannot of course apply the phenomenal forms of space, causality, and the rest, under which we perceive phenomena, literally to the world of noumena, but we must assume some corresponding fact and relation as to their mode of real coexistence and mutual action. By this means, and starting simply from the very widest metempirical assumption, that there is a not-self, we are gradually brought by the help of Physical Science to a general conception of the noumenal universe and of existence generally, which claims to satisfy all the metempirical instincts of mankind, and to organise them into a consistent and intelligible whole.

In order to exhibit the theory of existence to which the theory which we have been developing leads, it will tend to conciseness and clearness to put down in the form of a table the different divisions or kinds of existence which a thinker, acknowledging the theory, would accept. And since everything has both a statical and dynamical aspect I will give two tables, one showing the statical divisions of existence in the mind of a Metempirical Philosopher, the other showing what he imagines to have been the development of the more complex forms from the simpler.

In the forefront of the whole I place this. The material of all existence is consciousness: every ens is a state or states of consciousness, and every proof of existence is simply an appeal to consciousness, whether it take the form '*Cogito ergo sum*,' or the form '*Id est quod clare percipitur*'. What is the meaning of a word? Other words? Ultimately it must be some concept or idea, some conscious state or combination of conscious states. This applies even to the word existence, it can mean nothing beyond consciousness. I do not now pause to establish this truth. If any man knows or can imagine any other kind of existence, that does not rest on consciousness, I trust he will give his discovery to the world as soon as possible.

At any rate, 'No Existence outside Consciousness,' that is the foundation of my Metaphysic. 'But there may be Other Consciousness than mine'; that is the foundation of my Metempiric. Noumena, or Things-in-themselves, which seemed excluded by the first principle are reintroduced by the second. I may observe that in carrying back existence to consciousness I go further back into universal doubt than Descartes with his '*Cogito ergo sum*' (at any rate in the *primâ facie* meaning of that proposition); for I go beyond thought and beyond personality. In these conceptions we have got beyond the actually given, and the inference may be incorrect. All that can be said when a state of consciousness arises is 'There is,' to which is shortly added 'There are'. Afterwards, when we give names to objects we call this existence by the most general names we possess, state of consciousness or feeling; but originally it has no name, no quality. It is in a sense therefore unknowable, yet though unknowable it is superior in certainty to knowledge, for it is the ultimate condition on which the possibility of knowledge depends.

Now, the different kinds or modes of existence may, on the assumption of the truth of Metempiric, that is, that there is more than my single consciousness, be classified as follows. Every ens must exist in one of the following forms:—

TABLE I.—STATICAL EXISTENCE.

1. *Noumenal*—in itself—the sphere of Metaphysic.

A.—Simple or Absolute, Infinite, Unqualified, Affirmative, Unknowable *esse existentia*—separate conscious states—*ὄτι ἐστὶ*:

(a) simple—'Feeling is,' 'There is'—Substance or Feeling.

(b) (in a monad) complex—'Feelings are,' 'There are'—Relation.

B (in a percipient monad).—Complex or Relative, Quali-

fied, Objective, Limited, Negative, Knowable *esse essentiae*; *τί ἐστὶ*. The result of classification by resemblance and difference. It seems to involve memory, otherwise there would be nothing to arrest the flux and make a commencement for objects.

(a) Feelings—special modes of consciousness such as will, thought, emotion—*Cogito, Volo &c., ergo sum*.

(b) Inner events or relations—Laws of Thought.

C (in a self-conscious monad).—Forms of Intuition, Categories, Logical Axioms—Perception or knowledge of self as a permanent Ego, and of feelings and mental laws as related thereto—*Cogito, Volo &c., ergo sum*:

(a) as a sum of Feelings united according to certain Laws—Psychical.

(b) (in a metempirical monad) as related to an outer not-self.

2. *Phenomenal*—outside itself—in its effects or Phenomena, such effects being referred (by Metempiric) to it as efficient cause. This kind of existence is *only* to Metempiric.

A.—Absolute, Unqualified, Unknowable, Particular Existence, *Esse = Sentiri*—Sensationalism:

(a) simple—separate sensations.

(b) (in a monad) complex—sensations held together—relation.

B (in a percipient monad).—Relative, Qualified, Objective, Knowable Essence, *Esse = Percipi*—Idealism generalised by resemblance and limited by difference. It is the Universe in Sense as perceived—nature in Sense—the universe in Arithmetic: this gives Reality.

(a) Qualities—light, sound, colour, &c.

(b) Events—motions of different kinds.

C (in a thinking monad).—Conceptive, Symbolical. This gives Truth. Here we get to the second mode of existence

of the universe, the Scientific or Symbolical—nature in Thought—the universe in Algebra.

(a) Qualities—force, matter, &c.

(b) Laws of motion.

D (in a self-conscious monad).—Physical, True—perception and knowledge of the universe as a permanent object :

(a) By reference to the permanent self-reality constituted by thought, *Esse = Intelligi*—Neo-Kantian Idealism, complete synthesis being not actually realised, but an ideal of thought—the universe considered as a sum of—

a Material objects (made out of qualities considered as fixed in a permanent unity) affecting one another according to

β Physical Laws or uniformities of motion.

(b) (in a metempirical monad) external to consciousness—the universe considered not only as permanent but as Not-Self—Realism. Here we get to a third and last universe; nature in philosophy, in religion, in itself—the macro-cosm.

a Objects now referred to an external persistent matter.

β Laws of nature considered as changes in an external persistent force.

On this Table, which professes to be a classification of Existence in the widest sense, all that is, I may make a few general remarks.

There are two main divisions: between Noumenal and Phenomenal, and between Absolute and Relative. The former seems on the Table the more important, and it is in a sense the most fundamental. It is also the latest to be discovered. In fact it exists only to Metempiric, it is the great distinction introduced by Metempiric in the hope of

clearing up experience. Even Metaphysic, if consistent, deals only with noumenal existence, and refuses to recognise any distinction beyond those of subjective and objective, absolute and relative. But when once obtained this distinction throws a flood of light over the mysteries of existence. I have already explained the view I hold of it; how that every noumenon is phenomenon, and every phenomenon noumenon, so that the two series are not only parallel, but in a sense identical; every noumenon may be said to exist phenomenally in two ways, first as itself a phenomenon of other noumena, and secondly in its own phenomena, and here both really as perceived, and ideally as conceived by other monads (the latter of which is the sense adopted in the Table); and similarly each phenomenon has a double noumenal existence, in its noumena, and as itself a noumenon (the latter of which is again the sense adopted in the Table). The connection between the different monads (which the distinction of noumenal and phenomenal involves), exists really only either in a combining monad (if such exist), or ideally as a metempirical hypothesis either in one of the affected monads or in some third monad. I may further notice that a phenomenon in the ordinary sense has no single corresponding noumenon, but each phenomenon is the result of the mutual action of several noumena, and no single noumenon has in fact any single corresponding phenomenon in any monad, though of course such a state of things is *a priori* conceivable.

Let us now turn to the second division mentioned in the Table, that of Absolute and Relative Existence. By some writers existence is taken in a far more limited sense than that given in the Table, which makes it coextensive with consciousness. For instance, Mr. S. Hodgson takes it as comprehending only the single division of phenomenal objective existence. "Feeling," he says (*Phil. of Reflection*, ii. 53), "is the name for the subjective aspect; and its obverse, the objective aspect, is Existence": and he means by

'objective,' external or physical, as opposed to inner subjective, not as we use the word, a mere percept whether inner or outer. Noumenal existence is therefore a 'nonentity,' for existence involves relation. But surely it is impossible to deny that simple feelings, *quâ* feelings, exist in some way, whether before or after the conscious separation of subjective and objective aspects; if not, the 'Moment of Reflection' would be an act of creation. The simplest element of experience, long before the separation of subject and object, is a mere assertion of existence, 'There is,' without quality or any necessary connexion with any other like assertion. If it were true that the only thing that ever existed was a single momentary feeling, that would still have *existed* as really as if it was only one of many in a percipient mind which combined them into a physical object. We begin like Hegel with 'reines Sein,' which, having no qualities, is objectively undistinguishable from 'Nichts'; but we avoid his absurdity by admitting the original multiplicity of such existents. Every element of conscious experience in the widest sense is an existent, and modes of consciousness and modes of existence are coextensive. Mr. Lewes, like Mr. Hodgson, says 'existence is objective experience': but he adds 'experience is subjective existence' (*Problems*, ii. 16).

There is then such a thing as absolute existence; we can give it no descriptive name, for quality depends on relation; we can only identify it with that other indescribable, consciousness. It is the mistake of Mr. Hodgson and others that they identify 'existence' with the 'is' of the copula; which hypostatizing of the copula 'est' is, as Hobbes long ago remarked, the source of many absurdities. Absolute existence has no quality, it is no thing, it simply is. Much less does it contain in itself any distinction of noumenon and phenomenon, as might perhaps appear from the Table. That distinction exists only to a metempirical mind which fixes its thought on two absolute conscious states in different monads

both of which are therefore noumena, but one of which it looks upon as phenomenon or product of the other. In itself there is nothing to connect any absolute conscious state with any other, each exists absolutely and for itself alone. It is only when we make them objects of thought that we give them relations; only then that we can even speak of them in language, for the terms of language are 'objective' and applicable therefore only symbolically, or at most, approximately, to the unrelated. We can describe a further and further withdrawal from definiteness of perceived quality, but we can never describe an absolutely pure state; we can only say 'there is'. Yet the absolute mode is the only mode of existence in which all 'entia' must necessarily exist; the others are contingent or possible modes. There may be existence which is never perceived, never becomes objective. The identification therefore of existence and thought applies only to relation or objective existence. As to this branch of existence at most can we admit Hegel's well-known dogma "Was vernünftig ist das ist wirklich, und was wirklich ist, das ist vernünftig". Form is added by *percipi* or *intelligi*, in fact, by relation; but form is not all, it is not even necessary, and there is a material of existence wholly independent of and prior to thought; this material is consciousness.

Having established the fact of an absolute existence, we may now proceed to show the outline of the process by which absolute existence is converted into relative or objective existence. I may note that this process is repeated only partially in the later individuals, much of it having become organic and only requiring to be brought out by practice.

TABLE II.—DYNAMICAL EXISTENCE.

1. *Absolute*, unrelated.

A.—A feeling—feelings taken separately.

B.—Feelings together—Relations and combinations of Feelings.

These two classes are as yet not consciously separated.

2. *Agglutinative*, due to association by way of contiguity in time or space (the two not being distinguished), one state recalling other states formerly connected with it by 'spontaneous redintegration'.

A.—Groups of Feelings in sequence and (secondarily) in coexistence.

B.—Groups of Relations still not separated from the groups of feelings as form from matter.

These groups not yet separated from simple feelings nor recognised: their existence is still only 'absolute'.

3. *Simply objective* or Perceptive, due to 'spontaneous redintegration' or recurrence of past *similar* feelings and groups by association of similarity. Thus when a feeling or group recurs, its escort of similars marks it as a feeling or group previously experienced, and it becomes *recognised* as an object. Thus the 'flux' of Feeling is arrested. Only proper names can be applied to objects at this stage—*esse = percipi*.

A.—Feelings, and groups of Feelings with escorts of similars recognised as objects. Each feeling of a group may recall the rest (by agglutination) with the escort of the whole, so that a single feeling may stand for a complex object. These groups, becoming indissoluble, are often called Intuitions: they are instantaneous, indecomposable.

B.—Acts of mental vision, Relations and groups of Relations with like escort. These are still not consciously separated from the feelings constituting the groups, but are intuitional, like the intuition of distance or of causal relations. Mr. Lewes calls intuition the perception of relations.

There are two further stages which may be included in this class marked by two further discoveries.

a. The separation of *Things* and *Qualities*, facts

and their elements. This is due to the fact that the component feelings of groups severally tend to have their own escort, which is often different from the general escort of the group. Thus the group gets *external* relations. Here is the commencement of general names, names of qualities. This leads to ii:—

- b. The separation of Feelings or Things, and Relations,—Matter, and Form. Feelings and things are marked off by themselves, and the passage to other things is distinguished as a relation. Thus the connexion of things and qualities is seen as a relation, and things are seen to have internal relations and also external relations, both as wholes and through their separate qualities. They become known not only by their resemblances, but by other relations too. These relations become also objectified or classified in the same way as things. Time and space are two of the earliest. Objects are therefore now perceived as in time and space. Objects are henceforth known partly by their external and partly by their internal relations; some, as simple feelings, wholly by the former; one, the universe of experience, or self, wholly by the latter. This stage marks still more clearly intuition as the ‘perception of relations’; it is above plain perception, but below conception, because restricted to particular objects and relations, not abstract. It perhaps depends on the organisation of an original judgment.

4. *Consciously objective* or Conceptive, due to apperception

or 'voluntary redintegration,' the *process* being now conscious, as involving a conscious reaction of the organism in attention. Things and qualities and facts are now consciously compared and classified, and general objects or concepts are formed. An object is now defined by other objects, and perceived as such by being referred to one or more general ideas or classes to which it bears some relation. Thus the universe is separated from the individual, the ideal concept from the real percept. Things now are groups of relations, ideal abstractions from particular feelings. Perception unites feelings into objects; conception brings objects together and thus analyses them again into general classes of feeling, and thus clears up the process of their manufacture and the relations of their parts. Feelings are now represented by symbols. "Thought," says Lewes (*Problems* ii. 11), "is the algebra of which perception is the arithmetic." The product and machine of this stage is language (other than interjections and proper names), which reacts on the process of objectification, and facilitates it by substituting symbols for images both of objects and qualities. A word is a symbol for an idea, which is itself a symbol for a percept; but the currency should be kept convertible. The ideal of this mode of existence is complete individualisation, the concrete individual; perfect truth, *esse = intelligi*. In the later stages, the objectifying process becomes not only conscious but itself objective; thus a further stage of objectivity is reached, but this need not be separately tabulated. Objects at this stage fall into the following divisions:—

A.—Feelings and groups considered as related and falling under general classes.

a. Things—groups of qualities considered as related in various ways to other things.

b. Qualities—kinds of feeling.

Things are still only the sum of their qualities; qualities are the universal relations which both bind them together and determine them, and are separated by abstraction.

B.—Relations of things and qualities—intuition.

- a. Empirical sequences and coexistences, events and facts.
- b. Qualities of events and facts—sensible : time, space, motion, quantity, rational moral duty, freedom, categories, and predicables.

Laws of nature, and principles of judgment or reasoning—Physical and Logical—are not yet consciously differentiated ; their separation leads to 5.

5. *Self-consciously objective* or Reflective, due to a distinction of the process of reasoning from the objects to which it is applied, conscious form from given matter, thought from things, experience as a whole from its objects, subject from object. This is true self-consciousness : consciousness of self is a universal relation amongst objects, a subject not knowable separately as an object. Unfortunately, this is soon confused with another distinction, a purely objective distinction of inner and outer experience, sensation and idea, the world, and 'self,' in the smaller sense. The result of the former distinction is to separate the 'subjective' and 'objective' aspects, that of the latter to separate 'self' and 'not-self' among objects : the confusion of the two is the confusion of Metaphysic and Psychology. Avoiding this confusion, we may say that henceforth a state of consciousness may be objectified in relation either to consciousness as a whole, or to the special division to which it belongs. Thus objectivity is henceforth of two aspects or kinds.

A.—Metaphysical or Philosophical—relation to experience generally, transcending the more special relations, *e.g.*, space henceforth distinguished as *subjective*, things as modes of feeling. It should be remarked that 'subjective' is still objective, as opposed to absolute ; it is only a new division of the objective, the most general relation as opposed to the special relations of science.

B.—Scientific, or relation to the special divisions of experience to which the particular state of consciousness happens to belong. It differs from the 'subjective' aspect only as a different and less general method of classification, by stopping short of the highest relations. This is twofold, according to the two great classes of objects, in space or not in space.

a. Internal or Psychological. 'Self' as a permanent Ego, or mind existing in time and located in the body, its faculties and laws, modes of thought and mental action. This is looked on both as an inner series not occupying space though located in space, as opposed to the outer, and as subject or thought as opposed to object or things (the real 'subject' is of course entirely different; this is purely 'objective'), but the two are constantly confused.

b. External or Physical. The universe as a permanent object in space with classes and genera, and subject to physical laws—modes of matter and motion. This does not really include the whole 'not-self,' for portions of that (*e.g.*, sounds and smells) are not themselves in space, which is the form of vision and touch only: but the latter being far the most discriminative and 'objective' senses, the others are referred to them and located in space too as vibrations or motions of some kind, or at any rate as inherent in visible and tangible objects, of which they are effects. It should be noted that all the divisions at this stage are *within consciousness*. The further separation of mind from matter

leads to a separation of both from consciousness as in 6.

6. *Metempirical*. This takes two forms, the latter of which seems developed from the former.

A. The hypothesis of consciousness other than our own, 'other minds'. The effect of this is simply to generalise the previous divisions. Metaphysic and Psychology become general, and Physical objectivity is now extended to all percipients. The notion of the 'social object' arises. This as already mentioned is the meaning of 'objective' in much German philosophy.

B. The hypothesis of existence beyond consciousness altogether 'Things-in-themselves'. This seems due to two causes: on the one hand to a confusion between sensation and consciousness, whereby an existence apart from actual sensation comes to mean existence apart from consciousness generally: and on the other hand, first, to the confusion of externalising objectivity or reality with tangibility only,* whereby an object is thought to be the 'cause' of, or to 'produce,' feelings in the body

* Sensations of various senses are first united together as an object, and then the 'object' is supposed to be where it is *tangible* only, not where it is audible, visible, or odorous, and therefore to be distant in space, yet producing sensation in us through space. Hence the whole 'not-self' becomes identified with the world of matter and motion in space, and physical objects are held to be outside one another which is true really only of *tangible* objects. Visible odorous audible objects intersect and coincide with one another in the same point of space, as in the case of two rays of light or waves of sound intersecting at the same point of space there are two visible or audible objects. Although therefore vision is spoken of as the 'objective' sense, it is so only as a symbol of tangibility; for instance, we suppose the actual sun to be only where we could *touch* it, not wherever we can *see* it. (Under touch and tangible I include not only touch proper but what is called muscular sensation. The quality of resistance seems the ultimate element of 'reality'.)

though itself distant in space; secondly, to the location of the 'mind' or objective self in the body, whereby outside the body comes to mean outside the mind or thought; and, thirdly, to the confusion or identification above noticed of the distinctions between inner and outer, self and not-self, and subject and object, or in other words of the objective mind or *inner* Ego with the total Ego or Subject of Consciousness, whereby outside of the mind which is located in the body comes to mean separate from consciousness. Objects do in representative consciousness exist both apart from actual sensation and outside the body, and thus in these two ways they come to be thought to exist outside consciousness as a whole, and the mirroring of outer and inner sequences of the not-self in self comes to mean the production of phenomena in consciousness by outer noumena. Mind and matter are now both separated from consciousness, which is considered their union, or the effect of one on the other; instead of different aspects or modes of relation of a state of consciousness, they become its factors.

This widens the distinction between Metaphysical and Scientific, giving it the following form.

A.—*Noumenal*. Consciousness, its states and internal relations in ourselves and in others.

B.—*Phenomenal*. In this the former distinction of internal or external still remains.

a. Mental phenomena as referred to a soul or thinking substance underlying the conscious process.

b. Physical phenomena as referred to a universe of matter and force outside consciousness.

Eventually (in the present system) these two metempirical

hypotheses are united, the latter being resolved into the former: existence being identified with consciousness so that the only existence beyond consciousness is that of other consciousness. Thus both souls and Things-in-themselves are brought back into consciousness, and the distinction of noumenal and phenomenal, or Metaphysical and Metempirical (in which scientific is now absorbed) becomes simply a distinction between the reference of a conscious state to its percipient consciousness, or to the external consciousness or consciousnesses of one or more of whose states it is phenomenon. To a monad who has reached this stage the divisions of existence are as represented in the former Table.

This second Table shows the gradual development of objective from absolute existence; of essence from existence, the $\tau\acute{\iota}$ from the $\acute{o}\tau\acute{\iota}$, copula from predicate, form from matter, truth from certainty. This process is continuous, a perpetual synthesis of relations whereby the object becomes more and more concrete, more individual, because more bound up by universal relations with all other objects. Again and in a different way every object is capable of successive objectifications. For every object has also an absolute side, namely, as a feeling or process in its percipient monad, and is therefore in a self-conscious monad capable of a new objectification by reflection. Every absolute may be related; every relative may be treated as absolute and be further related; as so objectified, it may again be objectified by self-conscious reflection, and so *ad infinitum*. Whether the first objectification, reference of feelings to each other, is sufficient to constitute 'objective existence,' or whether objective existence proper arises only on the second objectification, reference to the percipient mind as subject, or whether the true 'objectivity' is not reached till the ideal completion of knowledge of every relation of the object, is a question (like many other questions as to existence) purely verbal.

I myself have preferred to take 'objective' as opposed not to

subjective, but to absolute, as the knowable as opposed to the unknowable, and as taking in all qualified existence, all percepts. This of course includes much that is often called 'subjective,' such as perceived feelings and other states of consciousness : these in my nomenclature appear as noumenal objects. I contend that the meaning I have adopted is the correct one : wherever two or more states of consciousness are united, there must be a centre of union, a subject ; the 'Ich denke' (as Kant says) must be capable of accompanying any such act of union, and the result of the act is a relation or rudimentary object. The ordinary distinction of subjective and objective on the other hand comes much later and refers, not to the subject in the sense above given, but simply to the inner or faint series, as distinguished from the outer or vivid series, a very much later and less fundamental distinction. For when the inner and outer series are separated, the 'objective world' comes to mean not all objects (in our sense), but only those which are referred to a permanent external 'thing' or power, as phenomena ; all other 'objects' being called 'subjective' as not implying such reference. Hence this sense of 'objective' includes, as I have said, only phenomenal objects ; noumenal objects being referred not to any external source, but to the subject (as the inner series is most confusingly called), are called 'subjective'. This confusion of the meanings of subjective and objective has brought great trouble to Philosophy. If the relation between them is identified with that of inner and outer, mind and matter, as for instance it is by Mr. Pollock ('*Spinoza*,' p. 180), that amounts to denying that an inner state can be an object. But surely the so-called 'subject' so far as its existence is knowable, exists only as a real or a possible object, the unity of the Ego being reached in the same way as that of material objects, and material objects being to the whole of experience, or the *true* subject, just as internal as the inner mental series.

There is again another meaning of the word 'objective'

which comes from Kant, and is common in modern German philosophy. Take for instance the following passage from Lange (*Materialism* ii. 326):—"So far as in the abstract representations of sensible things there appears a necessary agreement of all men, in virtue of the *a priori* elements of our knowledge, so far these representations are 'objective' as opposed to the more concrete sensations combined with pain and pleasure which we call 'subjective,' because in these our subject does not find itself in a universal and necessary agreement with all other subjects which experience sensations". But this meaning involves not only the separation of self and not-self, but the metempirical hypothesis of other selves, and as the process begins long before this, it does not seem well to retain the name for this, its highest product alone, the 'social object'. Yet even Mr. Lewes says (*Problems* ii. 21) 'the true objective aspect is that which is presentable to all minds'.

The meaning which I myself have attached to the word 'objective' I have chosen as the most comprehensive of any, and as the only one which points to the fundamental separation of objective from absolute existence, in fact to the origin of objective existence. But of course the stages of objectification are almost infinite. Below the limits of life and organisation we must refuse to admit anything like perception of objects in our sense at all; for such perception requires memory and consequently plasticity, a power of retaining impressions; and from all we know of atoms they have no such quality, but the contrary quality of complete unchangeability, except in respect of direction and velocity of motion. There are no doubt some traces of the law of habit in the inorganic world, but these are far too faint to suggest anything like conscious memory. Thus we must trace the use of the process of objectification far beyond the period when it produced anything of the nature of what we call objects: these require a complex organisation and an advanced power of

registering experience. But even here we have not reached the limit of the objectifying process.

The relations of each object are potentially universal ; each is what it is only by its relations to everything else. Hence objectification will not reach its limit till the whole universe and every atom it contains are completely perceived and thought, and so become perfect objects. This cannot be in any individual monad, for it stands to the rest in its individual relation which it can never wholly transcend : each individual may be completely self-conscious when in knowing itself it will know the whole of the universe from its own point of view, but no individual as at present constituted can transcend the forms of space and time. Complete self-knowledge can only be if the consciousness of each monad be subsumed or organised into a universal consciousness comprehending them all, and then the universe will be a complete object to itself. But objective existence does not wholly and completely exist till the objectifying process is complete. Knowledge is a process, and knowable or objective existence is a product of this process ; but the process is never complete, so that objectivity never exists actually, but only in idea. Hence, when we talk of ' objective existence ' now, it is only the imperfect form of it to which we have at present attained that we often mean, but the true philosophical meaning of the word embraces in addition to this not only its past stages, but all its mighty future evolution. The history of the universe is the evolution of objective from absolute existence, of things from being. The true object is wholly ideal ; but we apply the term to its imperfect stages.

There is one subdivision of objective existence of which I must speak, because of the great confusion and uncertainty that there has been in respect of it : I mean the distinction of Real and Ideal. And herein I incline on the whole to the view which confines the term Real to percepts, that is to cases where the object is, or is capable of being, actually

present to consciousness in whole or in part: concepts, on the other hand, being Ideal, or symbols representing reality. 'Thought,' as Mr. Lewes says, 'is the algebra of which Feeling is the arithmetic'. But I do not confine reality to *external* objects. I see no reason for that distinction—nay more, an idea may exist really, if perceived *as such*, but its object is ideal. According to this view, all states, both inner and outer, have a real objective existence so far as they are perceived as actually existing states, but as 'conceived' or 'thought' their existence is only ideal. Truth, or congruence with reality, is the quality of thought; reality is the quality of perception. Of course there is thought in all objects to a greater or less degree, but thought alone cannot make reality, it can only objectify the real feeling which is present. Thus an object 'really' exists when it, or part of it, is a state of consciousness actually present. Reality and existence are not synonymous, for, as Herbart says, 'Realität und Sein' are different conceptions; but the former is a subdivision of objective existence comprising all cases where the object is actually present in consciousness, as opposed to those in which it is merely represented in concepts or words or other symbols. Mr. Shadworth Hodgson has well said (*Time and Space*, p. 352), "without Thought no Truth; without Perception no Reality". The passage therefore from real to ideal existence corresponds with the passage from 3 to 4 in the second Table, from percept to concept. Beyond this limit the process of objectification passes from reality to truth, from the real to the ideal, from perception to knowledge, from mere observation to science. Thus it enters the infinite region; for, as Hegel said, Truth is always infinite. Reality is finite, it is now and here, the mere 'that'; but the relations of this real with others, the filling up of the 'what,' has no limits but those of the universe.

But there are other plausible uses of the word real. One of these, for instance, lies in the view that reality depends on

the distinction of what Mr. Spencer and others call vivid and faint states, or as Hume also phrased it, impressions and ideas, so that the distinction would correspond broadly to that of inner and outer. Real existence on this view would be confined to cases where part of the object is, or may be, a primary or vivid state of consciousness, and the object is conceived as a permanent *possibility* of sensation either in its original state or in its effects (the last clause being added to exclude dreams): and ideal or imaginary existence would comprise the case where either the whole of the object is composed of secondary or faint states, or where it or its effects are not permanently reproducible in sensation. And if there be any conflict among different vivid indicia the sense of touch or resistance seems to be accepted as the ultimate referee. It is that which seems to constitute the *real* thing, by which the other sensations are considered to be produced. It may be, however, that in abnormal conditions even touch is deceived; reality must then be decided by the feeling of the majority of percipients. This view may perhaps be considered the popular view, but to philosophy it is not so reasonable as the former.

Let us turn from verbal definitions to look at the Table as a whole. I have said that it shews the various stages in the evolution of existence. But it must not be supposed that these are really to any extent definitely separated in the way necessarily suggested by any classification. They run insensibly into each other, and none of the higher stages is free from intermixture of elements which are products of the lower; so that the Table shews rather the gradual superposition of additional elements than a temporal series of successive forms which replace one another. But as the development increases the highest form present is always the most prominent in consciousness, so that to a human being of the highest intellect, almost the most difficult mental task is to isolate the lower elements of consciousness so as by

actual observation to investigate their nature. And beyond a certain limit it seems actually impossible to go, for all thinking and even conscious attention, to one of the simpler psychical states, brings into it a foreign element, and destroys and overwhelms its simplicity: its qualities are so broad and simple that they evade the distinctions which are necessary to perception and thought. Hence the existence and qualities of these simpler stages depend to a very great extent not on actual observation by introspection, but by an extension by analogy of the actual process of mental evolution which can be really observed and proved beyond the limits of such observation; and this method is as justifiable every whit as when it is applied by Physics to many theories which cannot be directly verified and which nobody doubts.

The Table is concerned only with the process of Objectification, it does not in any way profess to give an account of the evolution of mind generally, and much less of the other 'faculties' which constitute the inner nature of developed beings such as man. We have taken simply the receptive element, and left out of account the active. But we must remember that this can at best be justified as a device, such as those of Mathematics, for isolating a certain specified class of facts, which for the moment we wish to examine, and that it has not here even the approximate validity which it has in Mathematics, the facts being here so very much more complex. Mr. Lewes has expressed in his doctrine of the 'Psychological Spectrum' a fact which has long been acknowledged that no mental state can be absolutely assigned to any one 'faculty' or division of consciousness, not even to any one of the three divisions which are considered fundamental—intellect, emotion, volition. Every state of our present developed consciousness is a complex of elements brought from every side of the mental nature, and which can be separated only by elaborate reflection and reasoning. Still, though the whole inner evolution of the monad is one and

inseparable, the various special sides of it may, if we observe the proper caution, and must, if we are to attain any clearness, be examined separately. From the original triple conscious arc, impression, internal modification (grouping, association, and the like—though this was not quite original) and expression, comes the broad distinction now universally recognised by psychologists of feeling, thought, volition (Bain), or feeling, cognition, conation (Hamilton). I need hardly add, if the purely intellectual evolution can be traced down to the earliest receptivity or change of feeling in a monad from external sources, so the emotional and moral evolution can be traced down to the earliest activity or to the relation between the passive and active elements—the Law of Self-conservation. Emotions, as I have pointed out in *Physical Ethics*, and as others have shown in detail, are merely complex combinations of the elementary feelings of pleasure and pain which are the inner link of impression and act, with a large intermixture of associated passive feelings and active reexpressions; and the whole evolution of desires and of the moral nature is to be traced ultimately to the simple reaction, which physically is expressed as the Law of Self-conservation, psychically as the Principle of following Pleasure and avoiding Pain. But how enormous in each of these various lines of evolution is the influence of each of the others, and of metempirical elements also, in the social factors, hardly requires to be pointed out. However, in the face of our present one-sided view, it is perhaps well to call special attention to it. And here I may also take occasion to remark that it is far from the meaning of this essay to reduce the noumenal universe to any one partial element of consciousness, such as has been attempted by those who have made a world principle of Will, or Idea, or Phantasy, or a Designing Intelligence: all these must fail for onesidedness. But I start from the whole primary content of the conscious arc; the impression, the passage to expression, and the expression;

the first and last of which are the most fundamental, while the second rises in comparative importance with the advances of organisation; but the three are never separated, and there is but one evolution not three evolutions, just as there is one consciousness in man not three consciousnesses. For the working out and detailed illustration of this mighty Psychological Evolution I refer to the immortal works of Mr. Spencer and of others who have followed his teaching in England and abroad, and placed the conception on a solid basis of scientific fact. From the original Laws of Reaction, up through the Laws of Adaptation and Selection, and by the help of the Law of Habit (which gradually organises past experience into 'innate' forms, and thus makes it a machine or instrument by which consciousness can work without repeating the process on each occasion), we arrive by a gradual but certain progress from the lowest rudiments to an ideally perfect adaptation to the universal medium, part of which consists in a perfect mental representation of its phenomena in the mind, and part in a perfect volitional and emotional conformity to its laws. To the detailed working out of this process I have no intention of trying to add here, my present object being rather the sketch in outline of the general Theory of Existence to which this principle leads. The Table therefore which we are considering is no attempt to sketch the course of the general psychological evolution but only a sketch of the various stages of that element of it which became important to us in examining the different forms and kinds of existence, namely, the process of objectification.

There is another point to be noticed as to the divisions of the Table. The earlier ones express broadly different successive stages in the process of objectification, so that it cannot really be said that there is an 'object' in its strict sense till the 4th division is reached; but the same can hardly be said of the remaining divisions. The process of objectification is

at stage 4 attained, and as a process, completely ; but, as we have already noticed, the carrying out of that process may be indefinitely extended, so that the perfect object is an ideal which it would seem can never be attained by any finite intelligence, for it involves the classification of the relations of the object in question to all other objects, to the rest of the universe. But the remaining divisions of the Table are not in the line of the carrying out of this process ; that is rather the province of scientific discovery : they rather introduce not a greater objectivity but a new conception of objectivity itself, a further process of interpreting its meaning. Objectivity becomes self-conscious, becomes itself an object. And the distinction between these two later divisions hardly exists at all to ordinary men, but only to Metaphysicians who reject the step to Metempiric altogether. To the Idealist the various forces and motions into which the objective universe is resolved are only forms of our perception or products of our intelligence ; but to those who admit into their theories the metempirical belief which, wherever it comes from, is involved in every word, every feeling of love and sympathy, and every moral act, this admission enables them to go over afresh in conscious perception the ground which has been already traversed unconsciously, and thus to bring the universe a step nearer self-consciousness. By a philosophical analysis of existence we arrive again at the starting point, the great principle that Existence is Consciousness. To begin with, the simple *feeling* or affirmation is without quality or predicate ; then through complex feelings, and by a gradual process requiring memory and reproduction we rise to *things*, and a separation of things from self : then comes the notion of some substratum in things which is their permanent nature and in which their properties and attributes inhere, *matter* : then this matter is resolved into *force* or *motion* ; and finally we reach the conception of a reality underlying all this phenomenal world of force and motion, the belief in the

universality of substance, *i.e.*, of being, *i.e.*, of consciousness. Thus the universe is developed from mere consciousness to self-consciousness, and from the non-separation of subject and object to their reunion. Starting from subject or object only we can get no satisfactory conception of existence: neither in the Ionic Physical speculation or the doctrines of Hylozoism on the one hand, nor in the Emanation doctrines of Hindoos or Neo-Platonists, or in the Self-evolution theories of Fichte or Hegel on the other hand; nor yet again in any Metaphysical 'Substance' like Spinoza's, or 'Absolute' like Schelling's—an unintelligible common principle of consciousness and its objects. The only chance of success is by analysing actual existence to its very lowest terms; for these may be found, if not representable or imaginable in consciousness, at least capable of being thought of by means of the symbolism of their nearest analogies.

CHAPTER XII.

MENTAL EVOLUTION.

I CANNOT enter here into the details of the Mental any more than I formerly could of the Physical Evolution. The main outlines are broadly sketched in the Table so far back as the beginning of organic life. Farther than this we cannot, by any comparison of our present states, form any conception except by the vaguest analogy. Until there is some rudiment of memory and power of reproduction there cannot be any approach to objectification, the process of which, or some offshoot of it, is the main context of our own consciousness. Beyond this we only get a vague analogy, and ultimately we arrive at a region where we feel all description in human words must be impossible and misleading.

But if we take the main characteristics of the Inner Evolution we shall see that they depend on the same principles as we have already found in the Outer or Physical Evolution.

First, it is clear that the development has been both continuous and interdependent throughout; not a production of separate faculties but rather of separate functions. "The method of composition" (as Mr. Spencer says, *Psych.*, i. 184), "remains the same throughout the entire fabric of mind, from the formation of its simplest feelings up to the formation of those immense and complex aggregates of feelings which characterise its highest developments." There are none, or at least none known, of the most developed states which are

purely of one kind; the simplest conscious action involves actual or virtual thought, and the most abstract thought implies the action of volition in the mere fact of attention. I start from the original conscious arc, impression and expression, the one pole representing what in the future becomes sensation, the other the rudiments of volition: it is impossible in my view to separate these originally or to dispense with either. All attempts to evolve either will from impressions or ideas (like Spinoza or Herbart), or ideas out of will (like Schopenhauer), seem to me wholly to fail. Probably the earliest conscious separation of will from impression was due to the association of the feeling of reflex expression with the feeling of outer movement caused thereby, or with the feeling of effort which we call attention, the reaction of the organism on a stimulus that it wishes to increase. In this one event we see the birth of Self and Not-self, of consciousness, of will, and of the idea of force. Consciousness is at every moment one in spite of the multiplicity of objects, and is through life one in spite of the succession of events,—the unity of apperception, and the unity of memory. There must be some 'Träger,' some 'centre,' some 'Ich denke,' some '*Cogito*,' some 'pure Ego' in which all these aspects or relations converge and all the successive feelings of the empirical Ego or series of successive conscious states are united; this 'Träger' or centre is the monad, and the laws of its activity are reflected and represented in the continuity of time and space. This oneness must be taken as at present an ultimate fact though perhaps science may some day tell us how it came about. Yet the monad is no 'soul' of different nature to matter, it is the inner reality of all material phenomena. As to unity in time the central organism of monads remains through life the same; though one may yield its place to an external monad, the external monad steps into the exact place of the departing monad, and into the same medium, or with such slight

variation as may be useful to keep a record of the change; so that as the physical organism is called the same through life in spite of the perpetual interchange of its atoms with the outer world, so the Ego may remain the same though its constituent monads may be different. It may be even said in a sense that time is the consciousness by the Ego of its own unity, the form of its self-consciousness. Time is on this theory (and in agreement with the facts) earlier than the separation of subject and object, therefore earlier than the birth of space. It is in fact the form, or the substance (the two here coincide), of the Ego.

But it is equally true that the process of Evolution has tended to convert the homogeneous into a unity among heterogeneous elements, and if one were going to examine its details the different threads which lead to the main divisions or 'faculties' would have to be separately followed. There would be for instance the evolution of the intellect which corresponds to what is here our special subject, the process of objectification, the development of objective existence. And there would also be at least two other main branches: the development of the receptive element in the different special senses, and of the moral and emotional element in the various complex emotions arising from the primitive feelings of pleasure and pain (considered in their relation not to each other, as in the intellectual evolution, but to the feeling subject); and finally, though this is closely connected with the last, the volitional evolution by which the will and its adjuncts acquire a definite position in the inner cosmos and react largely on the other coordinate developments.

What then do we start with? What is the simplest absolute existence from which everything comes? Now it is at once evident that as thought and language deal only with relations we cannot think or speak of the wholly unrelated; we can assign to it no general name, include it under no

general concept. All the states of consciousness or bundles of states which can be described or conceived are so by their relations to other similar states; without such relation what is there to say, or how is it possible to think? This I quite admit; to think of it is strictly speaking impossible. But we may arrive at some distant analogy to this simplest rudiment of consciousness by eliminating as far as we can all elements of relation, all general ideas of quality. We thus get to a mere affirmation, a 'Setzung'; there is. And to describe it as nearly as possible in language, which fortunately gives us here more help than it ought, because it has not always kept in the view the fact that all its objects are conscious states, we will call it feeling or state of consciousness. No doubt in this use of the word consciousness we seem to differ from others who confine it to what I may call its objective forms. Some would confine it to Self-consciousness; others to active perception where there is the active element of attention; others to the simpler perception which is a feeling though not felt to be such; others again would imply in it memory, or the cases where a stimulus leaves a trace or rather disposition capable of reproduction so that past may be compared with present; others lastly to the mere binding together of inner states. From this last there is but a step to the states themselves; and though it is the plurality and holding together of states which constitutes the basis of all the higher development, the states themselves are the material of it all and underlie the whole process: the relation between two states cannot be something outside both: it can only be a change in each produced by the presence of the other. To these ultimate states therefore I take it I have a right, after due warning, to apply the name of consciousness although they are in a sense only its raw material. If anybody can give me a better word which equally expresses what I mean, the inner, the in-itself, the absolute existent, I will gladly adopt it.

At first this consciousness has no quality. The earliest that it acquires, or in other words, the earliest distinction between Feelings, is that of Pleasure and Pain. "All sensitive affections," says Lewes (*Problems* i. 130), "have the quality of Pleasure, or its correlative Pain."

The whole conscious arc is at first present as one undifferentiated state; impression and expression are merely a single feeling taking place, as yet unseparated and unperceived. "The substrata of these elementary psychical functions appear here (in the earliest cells) perfectly unseparated, and together spread through the whole mass" (Wundt, *Phys. Psych.*, i. 24). This being so, the first difference that rises to consciousness among reactions is that between a reaction of affirmation which prolongs the state in question, and a reaction of negation or resistance which tends to shorten it. This identification of Pleasure and Pain with mere affirmation and negation is well known to be as old as Aristotle (*De Anima*, iii. 7). The difference between these two modes of reaction depends, as I have already hinted, on the property common to all individuals, organic and inorganic alike, and which, if the many can be formed from the one, is evidently contained in the principle of their formation, or if not would clearly soon be produced by Natural Selection—the property of Self-conservation, *conatus in suo esse perseverare*. A monad, or atom, accordingly, just as much as an organism, resists or flies from all external influences which threaten to destroy its unity and constitution, and on the other hand encourages or pursues all those which help the due performance of its functions. This is the earliest distinction between its different reactions, and the whole process in the one case takes a different colouring from that which it takes in the other: this distinction is that which we afterwards come to perceive and know, and to call pleasure and pain.

These feelings are therefore, if this be true, at the bottom of the whole of consciousness, of the whole of existence; and

each 'division' of the later psychical organism is derived from it. Not only does the conscious arc become separated into impression, inner transformation and expression, which correspond to the differentiation of sense cells, nerve cells and muscle cells, given as a physiological fact by Wundt (*Phys. Psych.* i. 27); but by the property of habit and the consequent reproduction of weaker forms of old states in attendance upon new states to which the old have some relation, such states get formed into ideal classes as 'sensations'. Those of them which recur constantly together get formed into bundles or complex classes, so that a new one is perceived as belonging to such classes; and some of these classes become eventually so fixed in the organism by habit and hereditary transmission that they seem to be, indeed in one sense are, innate forms of perception, such as space in which objects are all located; and the different special senses seem to owe their origin to this source, for even the difference between the senses which are affected mechanically and those affected chemically may be thus attained.

This is the beginning of the process of objectification which we have been here particularly concerned with. Thus again modes of reaction are separated and united in many complex forms, and the result is conscious design and volition in its many shapes. The difference between the two is only in the relative strength of the motor element. Meanwhile, too, the inner term between action and reaction which before the conscious separation between them, between beginning and end, fills the whole conscious arc, now is organised by the result of ages of hereditary experience, into a complex succession of feelings; and this widening and extension of the intermediate stages has again its corresponding physiological fact in the multiplication of nerve cells. "There is no example of a single nerve cell, but several appear tied together in lines, the direction of which is determined by habit" (*Phys. Psych.* i. 269); and these are differentiated ac-

ording as they are connected with sense or motor cells, and thus acquire different functions (*Phys. Psych.* i. 28): which has led to the notion of specific energies, such energies being not really more innate than the forms of sense or thought (*cf. ib.* 206, 275, 315). This complex internal process takes two forms according as it has reference to the impression or the expression. On the one hand it forms the process of thought and conception whereby percepts are classified under general concepts, and these again are merged in verbal symbols; and consciousness passes from one to another, according to regular rules which, like the 'forms of sense,' become organic as logical principles or 'categories,' and thus objectification is carried beyond perception to thought, from the 'Logic of Feeling' to the 'Logic of Signs'. On the other hand the passage to action, which was at first simple pleasure or pain, is, by means of complex associations, and habits of thought and action become organic, developed into the complex organism.

The moment of effort is perhaps the most important of the whole conscious arc: it is the birth of consciousness through attention, it is the origin of the separation of Self and Not-self, subject and object, inner and outer, of the ideas on the one hand of will, on the other hand of force or resistance to will; so that we may call it the cardinal moment in the early development of emotion and desire, of which, as we have seen in *Physical Ethics*, the moral nature is the highest expression. These latter organisations would be capable of being shown in other Tables like those of the objectifying process. Yet these divisions are not anywhere or at any stage completely separate; there is never a perfectly pure example of a state falling wholly within any. They are mere abstractions of special aspects which we separate for convenience of thought. Intellect runs into emotion and emotion into volition, and they all bear to the end traces of the days when they were all in the elementary pleasure and

pain, which was at once the content of the impression and the cause or noumenon of the action. The relations of impressions among themselves, and their qualities as objects; their relation to us, and the attitude in which our inner nature stands to them; and finally the ultimate reaction of that nature: these prove to us how the main divisions of experience have all been derived from the one source, feeling and change of feeling.*

* I am aware that this view of pleasure and pain as the first and most rudimentary determination of feeling is one which is not consistent with the majority of philosophical views on the matter. Some say they are the subjective side of sensations as opposed to the objective qualities, but surely nobody would sincerely contend that the separation of subject and object is a condition precedent to the feeling of pain and pleasure. Others, like Herbart, say that these feelings are not simple, but result from the mutual action of representations 'Wechselwirkung der Vorstellungen,' 'Hemmung' producing pain, 'Verbindung' pleasure. But though this may have something to do with the form of the higher æsthetic pleasures, how can it affect the simple pleasures of sense? Pleasure and pain would, under this view, not be more than mere 'forms' like space. Others talk of pain and pleasure as a *result* of sensation. But what is this sensation anterior to perception? And we know that perception comes later than pain and pleasure. So also Wundt starts from 'sensation' of which pain or pleasure is only one property, 'Eigenschaft' (*Phys. Psych.*, i. 272) or Bestandtheil (*ib.*, 273) which he eventually identifies with the mode of reaction, the apperceptual activity on the sensible stimulus (*ib.* 492), and puts it on a level with the quality and strength of the sensation as together forming the sensation, or rather perception, saying that we cannot go back beyond perception. But if the other two elements, quality and quantity, are clearly from the beginning mere relations, and the remaining one, pleasure or pain, is clearly not a relation at all (until the separation of subject and object) is it not reasonable to suppose that perception arises by the feeling of relation among pleasures and pains? And as to not going beyond perception, no doubt that is impossible in actual verification; but why may we not do so symbolically? Surely this is at least as justifiable as his doctrine of 'negative sensations' (*ib.* i. 361). He says 'In the fact on our theory of feeling as a third element in sensation, which is added to quality and intensity in changing degree, the statement lies already made, that there is in reality no feeling (Gefühlston) without an accompanying sensation, any more than there is sense-quality without intensity' (i. 466). But this fact is one capable of easy remedy by changing the original theory. He admits that feeling is more intimately connected with consciousness than quality and quantity (*ib.* and *cf.*, p. 380, where he calls it a 'centrale Erscheinung'); but he says the latter two are after all only reactions of our consciousness, and therefore the same principle applies to all. But he omits to show that they are simultaneous and coordinate reactions, and anybody who looks can see much evidence the other way. For instance he himself even points out (i. 488) that in the sensations which have least quality and

We start, therefore, as in the physical evolution with motions of atoms produced by their various relations, so here with feelings of monads produced by their various relations. Whether we can ultimately get further back in either case is here immaterial: this is what we choose for our present starting point. And our first step forward is the same in both cases; as the law which regulates the mutual action of atoms is the Law of Self-conservation, so in the case of monads the law of reaction is again that of Self-conservation, which, otherwise expressed in the terms we employ, is the appetition (not of course intentional) of pleasure and withdrawal from pain.

definite quantity, what he calls the 'Gemeingefühl' or 'subjective sense,' the feeling of pleasure or pain so completely outweighs any quantity or quality (which of course for consistency's sake he says are there, only they are difficult to find, and 'always quite overlooked'), that they are always treated as specifically different from the sensations of the higher senses, as 'sensible feelings' opposed to pure sensations. And this 'Gemeinempfindung' E. H. Weber looks upon rightly as the typical form of sensation. Surely this evidence that sensation, even in our present development, starts from mere feeling in its lower forms, and rises in its higher to quality and quantity, is very strong evidence of a similar order in the process of evolution. Besides, it is surely evident that before we can get to quality and quantity, there must be *some* term of these relations, something of which they are predicates. This something is not a 'subjective' state, as he tries to make out, in order to show that this would make it impossible before Self-consciousness (i. 489)—though this is exactly what he himself reduces it to (*cf. ib.* n. 98, 9, 489)—but a state which precedes the conscious separation of object and subject altogether, a state which is the substance out of which both object and subject are made. It comprehends the whole conscious arc; and thus it retains its original nature even in the later stages of evolution: it always contains indissolubly united the passive element of impression and the active element of expression: it is both a feeling, and also one to be encouraged or avoided. I dissent therefore entirely from the view that feeling is a derivative from perception; or involves the separation of subject and object—I start with the original.

Another common view of pleasure and pain is that they are 'dunkle Vorstellungen' 'obscure perceptions' (*cf. Leibnitz Nouveaux Essais*, ii. 20, § 6; and Hegel *Encycl.* III., Werke, Bd. vii. 2, § 165): and this is in a sense true if it be taken to mean not that pleasure and pain are perceptions which have in some way *become* obscure, but that they are the obscure rudiments of which perceptions are one of the finished products. But the meaning of Leibnitz and Hegel was rather to make *Vorstellungen* the ultimates: and this is diametrically opposed to our present view. Lotze looks on them as the product of a special nervous process for which, however, he gives no valid evidence: and others have thought it a special kind of sensation; but this gives no account of its universality.

As to the connection between Feeling and Relation, which I have here distinguished as 'simple' and 'complex' feelings, I may note that it is very possible, and in fact in many cases certain, that an apparently simple continuous feeling may be compounded of a series of successive shocks (as in the case of sound, or light), and that relation or the feeling of the change from one continuous feeling to another, may be not the combination of the two feelings only, but a momentary shock different from either and undecomposable. (Spencer's *Psychology*, i. 164: ii. 264). But however this may be, a relation involves the existence of two feelings which are its terms, and its conditions therefore are more complex than those of a single feeling. A relation answers to a change of motion, while a simple feeling answers to a continuous motion. This at any rate we must conceive to be so originally, though, as we have seen, probably all or many of the 'simple' feelings now known to us are rather changes of rhythm than changes of motion simply.

The various upward stages of the mental evolution are marked by certain principles which it will suffice to mention; they correspond with those which regulate the physical evolution. There is the law of Habit or Association whereby chains of desire and thought become established. There is the law by which a multiplicity of little shocks become integrated into a single sensation, and so (in a manner which reminds us of chemical union) become consolidated into a feeling which bears little resemblance to its components; to this law we owe the differentiation of the special senses. Then there is the production of what we may call 'structural' modifications in the mental organism, which results naturally from the permanent and perpetually recurring sequences of the outer world, and which gradually rise by successive superpositions and combinations in various lines to produce the various so-called mental faculties. First, the sensible forms, not only those which mark the differentiation of the special

senses, but those common to all sensations, or as Mr. Lewes calls them after Aristotle (*Problems* i. 243) the *αἰσθητὰ κοινά*; of which (after pleasure and pain which are in my view, though not in Mr. Lewes's, ultimate) the more prominent are the forms of difference and, through it, resemblance of quality and of degree,—this being also all but ultimate, and entirely so to a monad; and the later acquired forms of time, space, and motion: these make the perceptive element. Next the *νοητὰ κοινὰ* or Logical forms of thought which come from the abstraction of relations and represent the most general kinds of relation, such as quantity, change, succession, coexistence, substance, cause and effect: these make up intellect. Then the emotional forms under which may be classed the appetites and desires, and which by various combinations of the simpler elements themselves, ultimately reducible to pleasures and pains associated together in various proportions, make certain special varieties, such as anger, fear, love, joy, and the rest, each of which is fixed within limits, though combining in endless groups and ever giving fresh resultants; these make up character. And lastly, in close connexion with the emotional, but with a greater logical admixture and a greater dependence on experience of results, the moral forms, the 'instincts'; not only those which conduce to self-conservation and are so prominent in the lower animals (which, however, also come under this head), but the higher instincts of courage, truth, fidelity; and when the metempirical belief is once introduced, the love of others, and the family and social affections; and all these varying motives to volition organised under a supreme moral feeling of duty, which is the head of all, the moral sense, or conscience: these make up the moral nature. These infinite varieties of forms are what a man is nowadays born with; this is human nature. Not of course that each of them is fully developed at birth; they are rather tendencies or capacities incorporated as structural facts in each embryo, one portion of the conditions of

the future mode of consciousness which it is their function to produce; but the actual exercise and development of this function has to be called out by such experience as will supply the remaining conditions and complete the whole cause of its exercise: and so it remains in many instances very imperfectly developed through life.

We must remember in this what is apt to escape our attention, that to each of the monad consciousnesses which constitute the organism, each of the others is part of the external world; and therefore the rest of the organism is only a wonderful machine, which has grown up around it, for transforming the multitudinous stimuli and impressions, which rush in on all sides from the rest of the universe, into regular and definite forms, and for arranging these forms in such orders of feeling, perception, knowledge, and volition, as shall make, so far as possible, the organism and all its members in perfect correspondence with the rest of the universal order. Therefore all these various forms of feeling, those of sensation, thought, emotion, or morality, are not in each of the monads that feel them independently of the rest, but are simply peculiarities of change in the consciousness of each (or to put it physically, of motion in the constituent atoms of the sensorium and the centres of intellect and the other faculties), which are caused by the peculiar relation which subsists between each such monad and the congeries or *organism* of surrounding monads. The forms are forms of the organism, which is like a kaleidoscope or any other machine for distributing force in special ways. They are due to modifications of structure produced by assimilation.

The final stage in the Evolution is the reign of Self-consciousness which appears to be a result of the inner objectification of feelings, not by their external relations to each other, but as a continuous series bound together in the unity of a continuous Ego, which is then abstracted in idea from

the successive affections of which it is 'Träger,' just as the attributes are severed from the whole object, except that the Self holds together in time while the object holds together in space.

CHAPTER XIII.

THE GENERAL THEORY OF THE RELATION OF MIND AND MATTER.

THE question of the relation of mind and matter has always, since Descartes, been the great crux of Metaphysic, and many solutions have been offered, mostly verbal only, and in no case, as I submit, completely satisfying both the requirements of strict theory as to the nature and conditions of knowledge on the one hand, and the demands of irresistible belief on the other hand. The Idealists starting from thought never succeed in reaching reality; the Materialists starting from the object isolated from the subject can never evolve the latter; while those who, acknowledging that neither mind nor matter can be produced from the other, have attempted to co-ordinate them as parallel attributes, have not attained more than a verbal explanation, which when we try to put any real meaning into it, vanishes wholly.

I have thought it important, therefore, in order to test the validity of our present system as fully as possible, to consider with some care what answer it can give to this crucial question. The approach to it is rendered somewhat difficult by the multitudinous forms which it has from time to time assumed, each of which is a different question, and therefore requires a different answer. In order to classify these, we must have recourse to our fundamental classifications of existence into noumenal and phenomenal on the one hand, and into absolute and objective on the other hand. Mind

and matter may each be taken either as noumenal or as phenomenal, and also in each of these cases either as an object fully known or as that which is *given* as the material for the objectifying process. This by a calculation of combinations gives a possibility of sixteen different forms of the question, and I dare say careful inquiry might find in the stores of philosophical controversy an actual example of each. But the question is still farther complicated by the different meanings which have been assigned to 'Mind,' especially when treated of in the noumenal sense: three of these at least are important, and must be considered separately. Now these different questions (of which we shall naturally consider only the more important, the answers to the others being easily deducible from these) fall within the domains of each of the three different branches of knowledge, Physic, Metaphysic, and Metempiric, and perhaps our simplest course will be to take such aspects of the main question as fall to each of these in order.

PHYSICAL QUESTION.

First, then, comes the form which the question takes when both Mind and Matter are taken as phenomenal and objective. Now this is a problem which clearly falls within Physic. Broadly speaking, it comprises, first, the statical question of the relation of nerve force or motion to the other physical forces or motions of the universe, and, secondly, the dynamical question of the evolution of organisms from inorganic matter, of vital from inanimate phenomena, of neurility from the simpler forms of motion. These questions are both in the domain of Physiology; they have been already partially solved; and there is every reasonable expectation that they will be more fully solved hereafter. If so, and for our present purpose we must take it as done, then 'Mind' in this sense, as the objective external phenomena which we call 'mental phenomena,' is a product of the more rudimentary phenomena

which we call 'matter'. In other words, nervous and muscular processes are derived without a break from the simpler physical forces. Here it is well to note that this is the *only* form in which the question of mind and matter has any meaning to Physic, for Physic knows nothing of either mind or matter except as objects and physical phenomena; no wonder, therefore, that when the question is put to it in other forms, and instead of at once sending the questioners elsewhere, it endeavours, either from good-nature or vanity, to make some answer, it begins to talk nonsense. For instance, it sometimes tries to answer questions like the following: 'What is the connection between a nervous tremor and its accompanying sensation?' (or, as Prof. Huxley calls them, neurosis and psychosis :) 'Is the latter a link in the physical series, or a concomitant, or a collateral product?' But it never can give any real answer; it sees only *one* fact, the tremor, and if it try to include a second, which it does not see, all it can do is to talk about "two aspects of the same phenomenon," "two sides of the same fact," or use some such other form of words destitute of all realisable meaning.

METAPHYSICAL QUESTION.

So we have done with Physic, and may pass on to Metaphysic. Now here we can deal not only with absolute or unqualified existence, as well as with objective, but also with noumenal mind, at least to the extent of the single consciousness of the observer, and we can accordingly give an answer limited to that extent to the question of the relation between Noumenal Mind and Phenomenal Matter. And this is the meaning in which the question of mind and matter is generally asked, for 'Mind' is naturally used in the noumenal, and 'Matter' in the phenomenal sense, and it is because the question when put to Physic is often taken in this meaning that much of the mystery has arisen which makes most men turn in disgust from the whole subject. Of course it is im-

possible to explain the relation of two things by examining only one of them.

Now, as we have before remarked, the question becomes here more complicated by the various meanings in which the word 'Mind' is used. Of these there are three principal: first, the whole series of conscious states which constitute experience; secondly, that portion only of it which we call mind proper, the inner series as opposed to the outer physical universe (mind in both these cases being treated as an object); or, lastly, the subject or absolute consciousness as opposed to the object. Taking these in order, the first falls under the branch of Metaphysic which we call Philosophy. Now it is evident that to the philosopher of experience, consciousness is the material or substance of the whole of experience, of that part of it which we call matter just as much as the rest; he must, in fact, adopt some form of Idealism, and the only question open to him is whether he shall take as the criterion of objective existence '*percipi*' or '*intelligi*,' the growing material or the finished object, an actual incomplete process or a complete ideal result—a question to a great extent of nomenclature. On the one hand it may be thought absurd to say that an object which I actually feel and see exists only in idea, for the ideal seems at first sight opposed to the real or actual; but it seems a decisive reply that to refer sensation to an object at all requires classification, that is, ideas, so that without ideas there is no perception, no knowableness, and that it is reasonable to consider objective existence as the final result of the objectifying process rather than as the growing process itself. However, the precise form of Idealism which he adopts is for the present purpose unimportant: his answer to the first form of the question as to mind and matter is clear and unhesitating; matter is a product of mind, an evolved form of consciousness. So far Metaphysic can speak with certainty; but it can of itself deal only with the statical question. As to the further question how this has

come about, how it is that consciousness evolves matter, and as to the curious details of their present connection; how I come to have a body, why my consciousness should be differently related to one part of space rather than another,—these are questions with which Metaphysic alone has no means of dealing. If it attempt, as it sometimes does, to give some such explanation as that definite location in space is necessary for an intelligence having varied experience of a world of objects in space, and that without such experience objective existence would be impossible, this is either only to restate the fact in another form, or covertly to assume a final cause as origin, the most dangerous of all assumptions. Still, no doubt, by the help of the Physical Method, and using physiological phenomena as its symbols, 'Physical Metaphysic' can, as we have seen, arrive at theories on some of these dynamical questions which can be verified to some extent in consciousness, and therefore are not wholly metempirical. Still, the cases where this can be done are rare and imperfect, and any hypothesis of the evolution of our own consciousness must always be symbolical only, if we do not believe in anything beyond it. The answers to these questions can therefore really only be understood on a metempirical basis—we will therefore leave them till we come to Metempiric.

Turning now to the second meaning of Mind as the inner series opposed to the outer, or as some put it, the Faint series opposed to the Vivid (though it is difficult to see how many emotions are 'faint' in comparison with sensations however far behind they are in distinctness), the question becomes one of the relation between inner and outer series of consciousness, between motion and thought, the material universe and self, the Non-Ego and the Ego. Here we have a question inside the total consciousness, a question which in its parts falls to what we have termed Metaphysical Science, and is dealt with by the sciences of Sensation and Action which are often grouped under the generic names of Psycho-

logy and Ethics, but the broad aspect of which falls, like that last considered, within the province of Philosophy.

Now the broad answer on this point is, like that on the last, evident from the point of view of Metaphysic. Thought and motion, mind and matter, are not, as known, distinct orders of Being, but on the contrary their mode of existence is the same. Motion as known is a thought; matter as known is part of mind. The distinction between an external and internal world as knowable, is a mere empirical division drawn for purposes of convenience; is, in fact, only an early scientific discovery.

And as to the mutual action of these two series, we may say at once that as they are homogeneous their mutual action can offer no difficulty in principle. Understanding, which is the organisation of the faint series, and Sense, which is that of the vivid, are rather opposite extremes of the same process of objectification or knowledge, each involving the other, and neither producing any objective existence apart from the process in question. Mind and matter in this sense are opposed only relatively, and are known only through each other, and the division between them is within consciousness. The 'self' of the inner being is as 'phenomenal' as the external objects by contrast with which it is known (Caird, *Phil. of Kant*, 362 *sqq.*). Besides, the two series are, as objects, never apart; no vivid state can become an object except as qualified by faint states: the independence of the two aggregates is therefore only partial.

No doubt, however, this distinction represents an internal division in experience, the nature and laws of which can be studied only by observation of facts. And here again, as before, this statical aspect of the question may both by Introspection and by means of the Physical Method be brought within the purview of Metaphysic: and as a proof of this I refer to the flood of light which has been recently thrown upon the question of the present relation of the two series,

inner and outer, as they now exist, by the researches of Physical Metaphysic into the genesis in consciousness of an external world, and of our conceptions of the moral and other relations between inner and outer. These results being now, partially at least, verifiable in consciousness, may be legitimately subsumed, as I have already explained, under Metaphysic, the genetical inquiry being considered merely as a symbolical process.

To enter into the details of this statical relation would be here impossible: but one or two general observations may not be useless. The boundary between the physical symbols of the inner and outer series would naturally seem to be the exterior limit of the nervous system: for we refer a feeling of light which accompanies the nervous tremor occasioned by the incidence of luminous vibrations on the retina to the external world as a 'sensation' or outer state; and the fainter feeling of light which according to Science is accompanied by a nervous tremor exactly similar, but occasioned by some internal redistribution of nervous force, to the internal world as an idea or inner state. Of course the nervous system and the whole body, when treated not as symbols or marks of actual consciousness, but as physical phenomena, are parts of the external world (though probably in the early stages of the separation of 'self' and 'not-self,' body was part of the former, not of the latter, the earliest idea of not-self, as well as self and will, having been probably derived from the resistance of outside bodies to our own); for as material phenomena they affect us only by reimpression on the exterior senses, sight or touch—that is, as coming from the outside. I may note that according to this view such feelings as those of muscular effort, or hunger or headache, would belong to the outer series as 'peripherally initiated' to the nervous system, though not so to the body; and this, I think, would be allowed to be strictly correct, for though they cannot be made into external objects in the same ways as, for instance, visual sensations, they are

clearly given to, not in, consciousness, as is evident when we note that they are not under the control of the will; of course muscular movement is voluntary, but if the movement is made, the muscular sensation follows whether we wish or not. Again, I would note that the externality implied in the distinction of inner and outer is not primarily externality in space; for, as has been already pointed out, space is not the only form of phenomenal coexistence, but that applicable to visual and tactual phenomena alone: sounds and smells cohere outside the inner series in one sense, but not in space, though no doubt they are associated with objects in space, and are thus located in space, so that the whole external world is finally considered as existing in space.

To this conception of inner and outer we must return later, but at present let us keep to the more general view as to the division between inner and outer. Now if, as Physiology seems to show pretty clearly, the nervous actions generated inside the nervous system are in all instances reproductions on a feebler scale of intensity of similar actions once generated from outside, and if sensations are never produced by ideas (except, of course, through action), then this division of outer and inner seems to correspond with those between impressions and ideas, sensations and thoughts, and primary or presentative or vivid, and secondary or representative or faint states of consciousness. Of course, as known, no state of consciousness is purely outer or primary, for the process of perception involves a large admixture of ideas, that is, of inner and secondary states; but there is no doubt a broad line which may be drawn between perceptions which comprise in their components a sensation or impression or primary state, and those which do not, and this is the distinction which seems to be generally meant. And as to the broad aspect of the connection between these two series, the first thing to note is that their terms are homogeneous, differing only in degree, or energy, or amplitude, and that even in this respect the

demarcation is so evanescent that there are certain conscious states, such, for instance, as dreams and hallucinations, which we hardly know whether, judging by vividness alone, to refer to the one series or to the other, though, if our division be correct, they must be assigned to the inner series as having their immediate origin inside the nervous system. Secondly, we may note that the inner series is, broadly speaking, a copy of the outer, for not only is the idea of a sensation or of an object a mere copy in fainter colours of the sensation or object as perceived directly, but the laws or uniformities of sequence in the inner series are similar to those in the outer; so that the laws of Logic may be regarded almost indifferently as ultimate laws of mind or ultimate laws of the material universe. No doubt the order of thought differs in some respects from the order of sensations, owing mainly to the addition of the law of similarity to that of contiguity or habitual sequence, by reason of which thought acquires a movement special to itself, and a feeling or relation reproduces not only its habitual successors and antecedents, but its similars; this is the origin and meaning of general ideas, or concepts and general reasoning, general relations being substituted for particular sequences in time. But as I have elsewhere tried to show (*Physical Ethics*, Appendix 2), the law of similarity is ultimately derived from, and an example of, the law of habit or contiguity, so that the order of thought, though rather a symbol or 'ideal construction' than a copy of the order of sensation, is wholly derived from and constructed out of the last-named order, and contains no independent element. If we want to verify the former, we have to bring it back to the latter: the former is only the latter symbolically compressed and freed from its 'accidental' nature of special positions and juxtapositions in time and space—the many reduced to the one, the perpetual flux of sense ordered and classified and interpreted by thought.

Now, this fact seems, no doubt, at first sight to show that the inner series is derived in some way from the outer, but the

idea has been suggested that it may rather be due to the fact that the universe as known is a product of thought, so that its laws were simply the laws imposed upon it by the perceiving mind, like the colour of objects seen through a coloured glass, or the laws of the arrangement of objects in a kaleidoscope. However, it is difficult to see how thought can have any creative power, any inherent faculty of synthesis or movement; or how it can add reality or *existence* or (if we prefer to say so) *non-existence* to its concepts; how, in other words, it can separate the existent from the imaginary or non-existent. And moreover, if our Physical Method of enquiry be trustworthy, it shows that the mind, though the immediate, seems not to be the ultimate agent, and that its motive power is derived, not inherent, the real fact being that the inner series has been evolved from the outer; and thus the ultimate conclusion leads us back to our first guess, that the laws of mind are derived from some external laws given in the sequences of external impressions, and are copies or symbols of those laws. But as we have already seen, this conception has not very much meaning to me, so long as I am compelled (as I am in *Metaphysic*) to consider only my own mind and my own nature, and seems even difficult to reconcile with my conscious experience, unless I include in that experience facts which I no longer remember, and which the symbols seem to show must have happened before I became I at all: the conclusions of *Metaphysic* on this point are only really intelligible from the point of view of *Metempiric*. So, too, the question of what is the real meaning of 'Outer,' what is 'given,' and how it is given, these questions await a metempirical solution. *Metaphysic* seems to leave us in the contradiction that outer objects are made by mind, yet that the processes of mind are in some way derived from outer objects. This comes from its attempting to transcend the merely statical aspect of the relation of inner and outer, and to answer such questions as to how the relation

began, what is the meaning of divisions among states of consciousness, or why consciousness should be broken up into states at all. All this clearly lies outside the range of knowledge in the strict sense, for the sphere of knowledge is the relations in question, and it cannot get outside them, so that no explanatory hypothesis can ever be attested or 'proved,' except in the very vaguest way. The dynamical question can be answered, if at all, only by Metempiric.

Before we leave this question of inner and outer, we must return for a moment to the second derivative meaning of it which was before referred to, in which the distinction is laid not so much between peripheral and ento-peripheral internal stimulation, as between existence in space and time and existence in time only; thus it is often said that time is the form of the internal sense, and space the special form of the external sense. This view of the distinction, which perhaps brings it nearer to that of matter and mind, would confine the outer world to the universe of matter and motion in space, that is, to that part of experience of which the data come through the senses of sight, touch and muscular sensation only: while the feelings of sound, taste, smell would be considered as 'subjective' or 'internal,' without any existence as such outside the sensitive organ, although they might have a material accompaniment or 'explanation' (as it is called) in the shape of some phenomenon of matter or motion in external space.

Mr. Lewes has well shown (*Problems* ii., 473 *sqq.*) that we have a natural tendency to express all 'objective' aspects, or (as I prefer to call it) all external objects, in terms of matter and motion. This he refers to the nature of the senses of vision and touch, to the combination of delicate and varied muscular sensations (which he thinks are the origin of objectivity) with retinal sensations (*ib.* 474, 476, 498), to the early and incessant associations of visual experiences with tactual and all other external qualities, and the greater range, and, I may

add, precision, of these experiences compared with those of any other sense. We thus see how "it is only the optico-muscular feeling of movement which is called in to interpret the objective conditions of sensation," and the other senses are set aside. Thus external change of any kind is naturally represented as motion, when objectified as an external event; and the whole external world takes the form of an extended universe of matter and motions of matter. Space, being a form now organic to these senses of vision, touch and muscular action (the reason of which lies within the region of Metem-
 piric as involving genesis), all external existence becomes represented as a material universe in space.

Here again the broad relation between matter and mind is clear enough. An external stimulus falling on the senses of vision or touch is objectified, by means of the organic mechanism with which those senses are connected, into a material extended object or a motion of such an object, while if it fall on any of the other senses no such result follows, except so far as a sound or smell is associated with some material object which its occurrence revives in idea. But it is only owing to the peculiar advantages and universality possessed by the senses of vision and touch, that our external universe is considered as an aggregate of motions and extended material objects, and not rather as an aggregate of sounds or smells. To explain sound as really vibrations of air seems natural enough, but only because movement is so much more capable of exact measurement and universal in its range than sound; if it were otherwise, movements would be 'explained' by being expressed in terms of their corresponding sounds. This suggests a question which, like those already mentioned, is irresolvable by Metaphysic: what is the nature of the external unity which combines the messages to different senses? For clearly the two messages cannot be taken, as Mr. Lewes would have it, as two aspects of the same process (*ib.* ii. 483). This unity, though perceived by us, does not lie

in our power, and follows fixed laws : it would therefore seem to have some cause outside our consciousness. Only Metem-
pyric can consider this.

We now come to the third meaning which has been given to 'Mind,' as the Subject, so that the relation of mind and matter from this point of view is the relation between 'subject' and 'object'. Now to begin with, it is clear that this is a relation, like the last, inside consciousness ; it is, broadly speaking, the relation between the form and matter of knowledge, or of objective existence ; and the main question is whether the two, form and matter, subject and object, are inseparable in their origin, so that the elaborate forms and classifications of developed knowledge are only evolved from the simpler forms of succession in which feelings are 'given' through sense ; or whether form and matter, though as known inseparable, are ultimately referable to distinct sources, the one as given to, the other by, the Ego or subject. In other words, does thought come from feeling, or is it added to it ? Now, the former of these is the conclusion to which we are led by the Physical Method ; according to it, all forms of consciousness are produced by means of 'association,' or habit, from the sequences of impressions or sensations ; the laws of Logic are copies of the laws of nature ; space, time and the categories are organic or automatic representations of physical uniformities, and the work of the developed 'subject' in thought is simply the reaction of the organism, with all its acquired 'experience,' on external impressions—a reaction which is the resultant of all the chains of association set on foot by any fresh sensation, and follows the line of least resistance. If this be true, everything is ultimately given to the Ego, for its body is clearly given to it ; all that it gives is a *centre*, a permanent bond which ties states of consciousness together as they occur, without in any way affecting their nature or the order of their occurrence ; but this order is affected by the organic mechanism of the organism through which all

impressions from without have to pass to reach the central consciousness. This organism is, as we shall shortly see, part not of the subject, but of the object.

Thus, while if by 'Mind' we mean either the total consciousness or the inner order of ideas as opposed to that of sensations, objects are made by mind (though in the latter meaning the mental order itself seems also unaccountably a product of the order of sensations); if, on the other hand, mind means the subject, objects are made not by it at all, but for it. Objects are made by relations (perceived or not), and relations are given as much as the separate feelings, for relations as felt are only the feelings together. To speak of the mind or 'thought' *making* or *imposing* relations is utterly false; thought is the process by which relations make objects, and to speak of it as making anything is as fallacious as to speak of 'force' 'making' the universe. All synthesis, though part of it may be *a priori* or organic to the individual, counting from birth, is *a posteriori* or empirical to the race or to the individual in the widest sense, taking in his pre-natal experience; its method is called in its higher stages thought, in its lower association, and association is the counterpart of the physiological law of habit. Thus the developed subject, the 'faculty' which makes sensations into objects, is not the true self, but rather a part of the not-self, a part or, at anyrate, a product of phenomena; it is a portion of phenomena which has become organic round the Ego or Monad, and through which, as through a formative medium or machine, fresh phenomena present themselves, being arranged and classified in their passage so that they arrive not as sensations but as objects. The gradual growth of this organism by the gradual solidification into structural 'forms' of abstract relations, may be traced not only by such methods as have been employed by Mr. Herbert Spencer in his great works, or by the modern German 'psychophysicists,' to whose respective labours I everywhere wish to refer as the real

basis of my own theory, but also to a considerable extent in the history of language and of philosophy, in which the gradual stages of the evolution of the subject are, as it were, fossilised into inflexions, declensions, conjugations, constructions, forms of syntax, and systems of philosophy.

It follows from this that space, causality, and the rest of the categories belong ultimately to the object, and not to the subject, and that their apparent subjectivity means only universality, which has impressed itself in organic permanence on the perceptive machinery. This leads to the view that the ultimate relation of object to subject is, that the successions of conscious states are the elements of the object, their unity in a centre or focus constitutes the subject: a view that looks like an inversion of the ordinary one, for it attributes the form of objects to the outer factor, and the substance or centre in which the form inheres to the inner, instead of looking on the material as given, and the form as imposed on it by the subject. At any-rate it is diametrically opposed to the teaching of the greatest metaphysical school of modern times, that of Kant and his followers. It is, in fact, a return from Kant to the simpler idealism of Berkeley, which sees in the subject only the unity of states, not some imaginary mind or faculty which contains in itself, in some perfectly unintelligible fashion, forms of intuition and reasoning in which it arranges the data of sense. There is not, as it appears to me, anything to show that states of consciousness are built up from any such heterogeneous elements, or that they have not ultimately come wholly from one source, and owe the complexity of their forms, and the universality and even necessity of their relations, simply to evolution from simple elements—an evolution, of course, not confined to the individual experience, but extending through the whole course of the world's history, and some of the results of which have, no doubt, like brain and nervous system, become organic in the individuals now existing.

The main Kantian argument against any doctrine which explains thought as developed from feeling, and which refuses to recognise a self-conscious subject as an ultimate postulate to explain the possibility of knowledge, is that it is impossible by any system of reasoning to arrive at such a conclusion without a *petitio principii*. On the one hand, if we try, like Locke and Hume, to "look into our own understanding and see how it works," to observe it like any other object, we fall into the fallacy of "bringing the source of the categories under the categories," or applying to self-conscious thought conceptions which are its product, or which its presence to phenomena is necessary to constitute; and the same objection applies to physical reasoning which tries to explain the general forms of thought by facts of animal organisation, for "these conceptions—the relations of cause and effect, &c.—are necessary to constitute the facts; they are not an *ex post facto* interpretation of them, but an interpretation without which there would be no ascertainable facts at all". (Green's *Hume*, i. 165. Cf. Caird's *Phil. of Kant*, p. 398.) If, on the other hand, we confine ourselves to analysis of the process of knowledge, we can never get beyond the self-conscious subject and the forms which are common to all thought. The self-conscious subject is therefore, as it stands, an ultimate fact of experience, and cannot be resolved into anything simpler.

This objection seems at first sight formidable, but I answer it in two ways. First, as regards the Physical Method, if my justification of that method as a working with symbols is correct, the objection to it fails: for although, no doubt, facts or objects supposed as existing as such before or apart from my thought, which to me constitutes them such, are 'imaginary,' this is just the advantage of the use of symbols, that they may assume for certain stages imaginary values, yet ultimately when retranslated lead to a correct and real result. But it may be answered, the thought

which constitutes objects and facts is not only the thought peculiar to you, but the universal self-consciousness the presence of which in you makes your universe, and the existence of which beyond you constitutes the total existence of the universe. To give, therefore, an account of the origin of thought derived from facts, is to assume facts anterior not only to your thought, but to all thought,—a clear impossibility. I reply that even if the symbols assume for certain stages not only 'imaginary' but impossible shapes, that does not alter the validity of the conclusion to be ultimately arrived at, if the ultimate result can be retranslated into real and possible values. "Personne ne révoque en doute l'exactitude des résultats qu'on obtient par le calcul des imaginaires, quoiqu'elles ne soient que des formes algébriques et des hiéroglyphes des quantités absurdes." (Carnot: *La Méthode du Calcul Infinitésimal*, p. 120, quoted by Lewes, *Problems*, i. 318n; also *Fechner Psychophysik*, ii. 40).

Further, I deny, so long as I remain at my metaphysical standpoint, that thought in me is one with any other thought, or that there is any such other thought at all. All I want to know is about the relation of my own subject to my own universe, and by the help of my symbolical method, I have arrived at the result that the universe was all ultimately given to my subject from outside, and that my subject only holds it together. If, however, I am invited to adopt metempirical speculations such as the existence of other thought than mine, I can then, under the guidance of the same method, give a real meaning to the symbols which before were merely symbols, because I now see that they may have existed without being objects at all in any mind, and that their mutual action may have taken place in the sense that change in one may have been causally connected with changes in others, without such causal relation having ever been perceived: the two changes may have happened separately, and each really, though never connected in any mind. If you,

therefore, once grant me Metempiric, I can explain the formation of objects from the mutual action of a number of different minds or monads, none of which could do it separately, far better than you do from your one universal mind, which seems to contain no reason for a plurality of objects at all.

I might add an '*argumentum ad homines*,' that if objective existence is the product, and the categories (and space and time) are forms of thought, we cannot think or speak of these latter without bringing them under themselves, or subjecting the conditions of the process of objectification to the process itself, which is just what is refused to Science. Professor Green says that "a consistent Sensationalism must be speechless," but must not a consistent Transcendentalism be also speechless as to the elements and sources of the objectifying process? Till there are objects there can be no expressive speech. If the distinction is drawn between synthesis and analysis, objective and subjective thought, analysis may, no doubt, get down to the simplest thoughts, but it cannot get further. Analysis is thought; if thought, as known and practised, requires the combination of two elements, how can it be applied to one of these separately? Moreover, analysis to have any meaning implies a previous synthesis (Caird, *Phil. of Kant*, p. 300), that is, a synthesis under one of the categories or general forms of synthesis; but the union of the category or form itself with the matter to which it is applied is not a synthesis in this sense; for not only does synthesis imply synthesis of *objects* or sensations, homogeneous data, but if so it would have itself to come under a category, and so on *ad infinitum*. Conceptions without sense are 'empty,' but if so surely they are as much "nothing for a thinking consciousness" as the perceptions which without conceptions are 'blind'. How, then, do we arrive at the elaborate system of categories and schemata, not to speak of the ideas of reason, which are prior still? It is not enough to admit that self-consciousness is possible or realisable only in relation to the manifold of

sense; if knowledge implies *both*, it is impossible to know either term separately, but only the relation, and to call it a *relation* is metempirical, for how can a relation be known as such, how can it be separated in knowledge into terms at all unless the terms be known as otherwise related: at anyrate, how can it be described as a relation between nameable terms, of which the names and descriptions imply more than their mutual relation, unless these terms are knowable and known separately?

The subject, as Mr. Spencer says, is only the unknown permanent nexus of states of consciousness, and is never itself a state of consciousness. It is this separation or dualism which constitutes the whole point of the transcendental system. For if experience were taken as indecomposable, the categories would be merely the highest genera of relations, or the most general kinds of experience, and there would be no reason why experience should not have produced them; or if experience were shown to be impossible without them, they and experience might have been evolved together; and, besides, the fact of their necessity would itself be a mere matter of experience too, and could not be referred to one of its 'elements' or 'terms' rather than to the other. Moreover, the separation must be more than a possibility of *abstraction*, it must be also (Caird, *Phil. of Kant*, p. 55) in existence: for if subject and object be not (as Mr. Shadworth Hodgson, *Phil. of Reflection*, ii. 22, would say) 'elements' but merely different 'aspects' or sides of a single actual process which may be severed logically or in abstraction, then even if thought could separate two aspects in the union of which it consists, how can different 'elements' be assigned to different 'aspects' as their 'source'? What becomes of the elaborate Kantian apparatus of knowledge and its psychological hierarchy of faculties? What becomes of Logic as the science of the pure intellect? (Wallace, *Logic of Hegel*, p. xlvi.). If the answer be that Kantianism is invalid as a Psychology yet valid

as a Metaphysic (Caird, *ib.*, pp. 572 *sqq.*), I answer that in that case we must give up not only all enquiry into the genesis and development of knowledge or experience or consciousness altogether—which is absurd when we consider that knowledge is not a given thing, but a process, not a completed product, but a growth, a ‘becoming,’ and which no philosophy will long be content to do, as witness the later developments of Kant—and all knowledge of our individual self or of our own existence as a knowing subject determined by time (*ib.* 362 *sqq.*), but also, as it seems to me, all talk about “a divine self-consciousness of which the presence in us is the source and bond of the ever-growing synthesis called knowledge” (*ib.* 125), even though it is admitted not to be “real or knowable in the same sense as is any other object”. To talk of the “source of the synthesis of knowledge” is psychogony, and to call it ‘God’ is surely to ascribe to it existence apart from the synthesis, to make it appear something very different from an abstract aspect of the synthetic process. If Transcendentalists enquire into the “source of the synthesis,” why may not science do so too? It cannot mean merely the *logical* source, for logic can never pass from one object to another not contained in it; it is clearly a synthetic statement, and implies a dependence of our knowledge on something which is not our knowledge. Pure thought, if there be such a thing, cannot know itself as an object; and if thought be self, how is self-consciousness possible? How can even the phenomenal Ego or subject, or the objectifying process, become an object to itself? Under which category can our series of inner states be subsumed; and what is the ‘intuition’ which is to fill it so as to make the object ‘self’? If it can know itself it can know the relation of itself to other things; but if it cannot know itself, what becomes of its existence if *esse* be *intelligi*?

But there is another argument which has been advanced

by Mr. Balfour, and which at first sight carries the foregoing objection against all theories of mental evolution still further, though I do not think it really goes so far. Such doctrines, it is said, not only must *assume* the ultimate beliefs which are the groundwork of reasoning, but also unfortunately *disprove* their validity; for they trace them to a cause, habit or association (that is, induction *per enumerationem simplicem*), which has clearly produced much error, whilst they suggest no possible means of distinguishing cases where it produces error from cases where it produces truth (*Defence of Philosophic Doubt*, ch. xiii.). Now, as no one can *prove* ultimate beliefs *logically* (else they would not be ultimate), if we are to give any account of them at all, it must be through their cause. And if so, what cause can we assign which shall give greater warrant of validity than truth itself? This is the account which evolution gives of the origin of 'innate' and ultimate beliefs: their truth is their *raison d'être*, their efficient cause; a belief that we are sure is ultimate must be true, if truth imply relation to the percipient mind; it is simply the impress on the mind of some uniformity of nature. No doubt some beliefs are false, but no ultimate belief (though some false beliefs have been falsely thought to be ultimate), and the teaching of science is that the false must gradually disappear. This admits that although science as a system is founded on truth, any special proposition is probable only; but even if this be held for practical purposes to amount to an admission that as a system it is only probable, how is it in this inferior to a system which gives *no* account of ultimate beliefs at all, and cannot show even that they are probably true? But Mr. Balfour says (*ib.*, p. 292), "we cannot consider any system to be even probable, which, if it were suddenly to become certain, would be self-contradictory, and therefore impossible". Why, I ask, would the doctrine of evolution become self-contradictory if it became 'certain'? If evolution is 'certain' as a fact, then it does not matter how it was

arrived at, and its conclusion that ultimate beliefs are probably true is correct; if it be 'certain' as accurately derived from its premisses, then how is its conclusion that its premisses are at least probable, contradictory to its assumption that they are true?

I do not know whether the answers, I have as yet given to these arguments will appear satisfactory; I think it ought not to satisfy a logical mind. For not only might Mr. Balfour's argument be strengthened by shewing that the scientific doctrine of mental evolution involves not only the axioms of reasoning (which its conclusion shows to be extremely probable), but the whole scientific system of physical evolution (which its conclusion shows to be far more open to doubt, scientific doctrines being wrong far more often than logical axioms), in which case the apparent incoherence would be much more considerable, but I must also acknowledge that my previous answers leave unsolved the logical anomaly, that reasoning based on certain principles, arrives apparently (no matter by what method) at conclusions (no matter of what nature) outside and affecting the validity of those principles; it gets therefore, or pretends to get, beyond its premisses. We must therefore seek a deeper answer. Now it seems clear that a conclusion as to the validity of certain principles cannot properly come from those principles only; to those principles as a basis it is 'metempirical,' that is it must involve assumptions, other than, and logically prior to, those given as the professed basis. And this is just the view which I have supported as to the basis and purview of science. Science is founded on certain axioms of fact and logic, and its function is out of these to make an objective universe; with the truth of its axioms or their source it has nothing whatever to do; with consciousness or thought as such, either in the observer or in others, it cannot deal, its function being to use thought as a process or method in dealing with phenomena; and its work is finished when it

has completely classified phenomena on the principles supplied to it. As to the validity therefore of these principles science can give no verdict; the question belongs, as I have shown, either to Metaphysic or to Metempiric. Now by the former, unhelpt by the Physical Method, the question must evidently be ultimately rejected as insoluble; self-observation and analysis of the process of knowledge must proceed on certain principles which it again must take as ultimate; by these methods we can never give any reason for, or account of, logical axioms. If therefore any solution of the genesis of the objective world is possible, it must come from Metempiric, for as we shall see the justification of Physical Metaphysic rests ultimately on Metempiric, postulating as it does that the ordinary laws of reasoning shall apply to symbols which have no empirical meaning. The arguments therefore, which we are considering, are directed not against science as rightly understood, but against Metempiric. Science is perfectly consistent and coherent; it states the nature of the world presented to our actually existing consciousness, that is, it classifies the sensations which we have or might have by certain relations or 'laws' which, on the assumption of uniformity (one of the principles given it as an axiom), are considered permanent and objective; in the same way it states what on the same assumption would have been the nature of the world perceived by our present consciousness at any past time, and what would probably be the nature of that so perceived in the future. This is all.

But we have seen that this alone does not content men. There are certain scientific facts, those connected with human and animal life, which they irresistibly make the basis of metempirical speculation, and we have seen that (taking for granted that such speculation is justifiable) in order to make it reasonable it must be coextensive with the *whole* of the scientific universe. Now it is from this speculation, and not from science, that all theories of the evolution of the mind

and belief must come. If we ask, then, what is the basis of this speculation, we may see whether it is or not coherent with its conclusion. First, it must of course assume (as a system based on reasoning) the axioms of Logic ; but secondly, it must also assume, as we have seen, that corresponding to the phenomenal universe of science there is a noumenal universe, which bears a constant relation to phenomena, and the parts of which are mutually related as the phenomena to which they respectively correspond. On this last assumption we ground our method, which consists in using phenomena as symbols, working in them and translating the results ; and by this method we convert the scientific doctrine of the evolution of man into a metempirical doctrine of the evolution of the human mind. Now if we confine our conclusion to minds other than our own, our conclusion seems in no way inconsistent with the premises ; all it would seem to mean is that if we with our present faculties had witnessed the evolution of the physical universe, the metempirical hypothesis which we should have made about it in its early stages would have been such and such, and that as its development progressed, the noumenal universe which we should have imagined to underlie it would shew a gradual evolution of the more complex forms of consciousness from the simpler. But having arrived at this point, we are irresistibly carried a step further ; for remembering that the whole ground of our metempirical hypothesis was the inference from bodies like our own of consciousness *like our own*, we are led to the conclusion that in tracing the genesis of this other human consciousness we have been tracing the genesis of *our own*, including therein the very logical axioms which were the starting point of our reasoning ; and this seems at once the rationale and the justification of the symbolic method which I have called Physical Metaphysic.

We thus get into a position which looks logically untenable ; we have performed a feat apparently equivalent to jumping

out of our own body ; we have started on the assumption of certain principles, and have ended not by showing them coherent or incoherent (that would be legitimate enough) but in getting *outside* them altogether. How then does this seemingly illogical result arise? Not, as it seems to me, from any fault of reasoning, but from the nature of the other metalogical assumptions which were the basis of our method and which included these: namely, that the principles of experience were applicable outside experience, and that the noumenal world corresponded with the phenomenal. Now of these assumptions the former made it possible to arrive by logic at an explanation of logical axioms, if we could get a sphere of existence including self and of which the qualities were capable of statement and investigation ; and the latter supplied such a sphere. On these assumptions we have therefore a method which can give the efficient or noumenal causes of belief generally, both true and false, and also of truth and falsehood respectively. But in order to work the method to such a result, we must evidently know what the objective phenomenal world *is*. Now this a perfect intelligence would be able to do, and such an intelligence would accordingly see how true beliefs were necessarily true, and false beliefs necessarily false, and how they might infallibly be distinguished in their causes. But we, whose science is as yet imperfect, cannot do this ; we see enough to state broadly the evolution of belief from simpler elements, but not enough to understand, except in a very vague fashion and by a kind of average of results, what determines ordinary beliefs to be true or false.

It is true, therefore, that while our knowledge of the physical universe remains thus imperfect, neither Physical Metaphysic nor Physical Metempiric can practically give any *additional* means of separating truth from falsehood. Indeed, even if we could give evidence of truth and falsehood in beliefs, such evidence would not be really addi-

tional in the case of those beliefs which were assumed in the reasoning through which the evidence was attained. But how can it be pretended that this fact affects in any way the evidence of truth and falsehood which we already have *from other sources*? No doubt beliefs are both true and false, and our physical method says, that both kinds are caused according to fixed laws (which of course it must do if it professes to account for facts); it also says, that if we had the materials for thoroughly using it, it could tell us what are the exact conditions which determine truth and falsehood respectively, but that at present that cannot be, because science is incomplete; but surely it is a great perversion of this result to say that it tells us that beliefs are true and false indiscriminately, and that if one belief is false any other may be so too. The fact that we cannot at present, or perhaps ever, supply a new test of truth does not discredit the old tests.

But I have been stating the situation too unfavourably for science, for in the case of *ultimate* beliefs science does tell us enough to corroborate the ordinary test of them, namely, the inconceivability of their opposites; for, by showing that any qualities which have been conjoined in experience may be reconjoined in idea, it shows that the impossibility of such reconjunction means that the two qualities have never occurred together, or that their conjunction is not a fact; hence if it gives no additional proof of ultimate axioms or forms of thought, it at least makes the proof which we have intelligible and reasonable. Not only does it, therefore, not cast any doubt on them, but shows that if they are hypothetically extended beyond their origin in us, they give a consistent and reasonable account of that origin itself: assuming that axioms hold outside knowledge, that the unknown and the unknowable are like the known and the knowable (the assumptions of Physical Metaphysic and Physical Metem-

piric), we can show how they (the axioms) come to hold inside knowledge, how the known comes to be what it is.

These considerations are, I take it, a sufficient answer to Mr. Balfour. But with reference to the general objection that our faculties can never transcend themselves, and that it is impossible by thought under the categories to give any account of the categories, I would say another word. Logically this may be true, and if we assume our own mind and its forms to be the whole of existence, Logic is supreme. But if once we admit that we can go beyond ourselves and make any propositions as to the metempirical world, Logic then ceases to be absolute, and from an ideal standpoint our faculties may be heard to criticise themselves as imperfect, even though at every step we take we have to use them as they are.

What does it all amount to? Simply this, that, using my present faculties, the most reasonable hypothesis which I can make as to their origin (assuming they had one) is that the more complex have been evolved out of the simpler, and the simpler out of something simpler still, which I cannot, of course, describe or imagine (for that involves the use of my complex faculties), but which I am logically, that is, by the use of these faculties, compelled to assert as existing or having existed. Is this a conclusion with which a man cannot reasonably be satisfied? Surely not. A man may recognise himself as an attempt by the universe at self-knowledge at a stage when such knowledge is only imperfect; he may be content to know that the truth which he sees is only partial, though it be the utmost which his faculties can reach; and this he will do the more readily if he believe that his effort is the condition of ultimate success. If the universe can become God only by passing beyond his standpoint, and if he is to be an agent in that mighty apotheosis, he must himself strive to transcend his faculties, and use his logic, not only as a safeguard of consistency, but as ready to pass beyond itself

into a nearer approximation to the higher logic which shall be the form of the divine self-consciousness. To feel himself co-operant in the growth of God, and his thought a new stage of progress in the opening consciousness of the youthful Deity, another truth acquired, a fresh idea gained, destined perhaps to do its work and be forgotten, perhaps to live forever in the eternal omniscience; this is nobler for a man than to boast of never having been betrayed into even a formal inconsistency, never having got into an illogical position, never having cast even a fugitive glance outside his own mental sphere. Consistency is a good thing, for gods and for machines; but for human minds and human speculations, I take it, progress is a better. Only perfect knowledge and perfect ignorance are constant; evolution is progress from the latter to the former.

The second answer I make to the Transcendentalist objection is by denying that it is impossible even by mere analysis of knowledge or perception to get beyond self-consciousness. Unphysical Metaphysic cannot, as we have seen, go far in explanation of the genesis of knowledge, but it may at least get further back than this. Many objects are perceived as such without a conscious reference to self at all, by their relations with each other; and this is, in fact, Kant's 'Refutation of Idealism' that the perception of objects outside us precedes and does not depend on the perception of self. No doubt this process, when reflected on, is seen to involve the holding together of the perceived objects and their constituent feelings in a common consciousness or subject, but the process exists before it is known, that is potentially, or absolutely; also the developed subject, that is, the system of categories and forms of relation and forms of intuition, exists absolutely, and even produces or joins in the production of objects, long before it is itself perceived, and consciously refers its objects to itself as a subject-object. In other words, relations may con-

stitute an object without being themselves perceived or made into objects. Absolute relations are the rudiments of objects, and are not themselves objects till later; and, *a fortiori*, the objectifying process itself does not become an object till it is far advanced: mind is conscious of objects long before it is conscious of that consciousness; it perceives long before it perceives its own method of perception. Such unperceived process of objectification has, of course, no objective existence except to metempirical thought, but it exists absolutely, though, of course (as I am always saying), the language in which we speak of it, as of all absolute existence, can be only symbolical.

We must conclude that the objectifying process begins, however rudimentarily, with felt relation, and that the perception of relation, and still more of the relation of all relations to a subject, are late stages in its development. The analysis of the process of perceiving an 'object' into a 'manifold' given to sense, a form of sense (space and time), a category or general form of synthesis given by the understanding, and a reference of the whole to the unity of self-consciousness, is clearly only possible (if ever) in respect of a highly-developed act of knowledge; in the earlier stages the different elements are not only not consciously separated, but are not separated or separable at all except logically or potentially. Now I have said that this may be seen even in our present developed processes. The only difficulty lies in expressing it, for language is a product of the self-conscious stage, and irresistibly conveys associations connected with that stage. Not only is it evident from children, who manifestly distinguish objects long before they have any idea of self; but if we confine ourselves to our own adult consciousness, there are many objects which we neither now refer consciously to ourself as subject, nor endow with permanence or any other quality which might imply such reference in the past. Take, for instance, a melody; we do not refer it to

ourselves, or to any constant external existence; we perceive it only by reference to other sounds and ideas of sound: this is what we mean by trying to 'understand' a new piece of music; we try to give it shape, to relate it to other musical shapes in our minds, and thus to give it meaning, to perceive it as an object. Or take a 'smell' or a 'taste'; the smell of musk is a distinct object to me though I have no notion what musk 'is,' that is, as a permanent object, and have no belief in the permanent existence of the smell. The present sensation is connected by association with other like sensations in the past, which are all grouped together as an object, and distinguished as such from other groups and from the rest of experience, though experience as a whole may not have been unified into an Ego or subject.

But it is objected that we cannot recognise a sensation as the same as one I have had before, except by referring it to the same consciousness. I answer that it can be recognised only if it is, in fact, part of the same consciousness, but that this fact need not be perceived: the unity of consciousness is, in fact, ultimately perceived through experiences of the connection of special feelings, consciousness is seen to be continuous because it is found that the same feelings may reappear in it. Again it is objected that association cannot make objects, for that states in order to be associated must be already defined as objects, and that "no custom based on a repetition of experiences can be the source of the very principles on which experience rests" (Caird, *Phil. of Kant*, p. 220). I answer that higher experiences are developed from lower, and that though the former may be implicitly contained in the latter, they are not so consciously or explicitly. For instance, it may well be that causality is implicitly contained in the perception of sequence, but explicit consciousness of it comes only from many sequences. If causality cannot be thought as itself caused, surely the perception of it may. The association theory seems to be sometimes interpreted as if it meant that the individual

finds certain of his states often connected, and so consciously infers some bond of connection or some objective reality; but the very point of it is that the perception of the connection *is* the perception of the bond or objective reality. I therefore admit that "sensations identified as the same in repeated recurrence are already objects" (*ib.*, 350), for the identification is the objectification; the two are the same process: but I deny that they need be objects *before* they are identified; and the means which makes identification possible is association. The pairs of ideas, object and substance, coexistence and reciprocity, change and causality, may be evolved together, or one may be implicit in the other, so that we cannot bring the one to clear consciousness without asserting the other (*ib.*, 459); it may be that every law of the universe is implicitly contained in the perception of an object in space and time; but that does not prove that we cannot perceive the object without knowledge of such laws, or that the knowledge does not come by association. To put explicit consciousness of a fact into perceptions which involve the fact only implicitly is much the same as "bringing the source of the categories under the categories," which Transcendentalists so much object to. I am ready to admit that self-consciousness is *potentially* present in the simplest monad, and that the perception of an object "implies the possibility of an identical consciousness of self" (*ib.*, 345; *cf.* 395), just as any effect is potentially in its cause; but the question surely is whether it is *actually* present, for if not how can it *as such* be the condition of objective perception? Whether 'self' mean the 'transcendental self,' "the unity presupposed in all knowledge" (*ib.*, 362 *sqq.*), or 'the phenomenal self,' the process of objectification, it is clear, as I submit, that to constitute an 'object' both must be there, but neither need be consciously there: each exists before it is perceived, but of course the meaning of that very statement is that each is *potentially* objective. And I understand that Prof. Caird, at

anyrate, admits this, for he says (*ib.* 396) that clear consciousness of the elements involved in knowledge may never be developed in the individual at all; "he may be conscious of objects, but not distinctly self-conscious"; "all this," he says, "does not concern us when we are treating of the conditions of the possibility of knowledge". However that may be, it seems to me that it concerns us very considerably when we are treating of the conditions of *actual* knowledge.

Of course if the word 'object' be defined in relation to 'subject,' one term of the relation cannot be perceived without the other, but my contention is that such a definition is purely arbitrary and at variance with admitted facts. To refer objects to a subject is of course self-consciousness, but in my view, objects must be, or at least are, made and perceived by reference to each other before perception of the totality of experience which gives the idea of subject. Experience is known in its parts before it is known as a whole.

It may perhaps be that we cannot combine the data of different senses, or form the idea of external and permanent objects independent of sensation, except by in some way referring them to a permanent subject, and that the separation of the external world may have been contemporaneous with the separation of self and not-self, but this I am not concerned with, for whatever be the sense in which Transcendentalists use the word 'object' in this connection, as to which I do not feel sure, to me it is far from coextensive with the *material* universe. If I show that I can use objective language without the implication of self-consciousness, I show both that analytical or introspective Metaphysic does not go to prove that this is ultimate, and that even if those methods cannot themselves shew its genesis of development (as I think they partly can), at any rate the symbolic propositions of Physic are capable of being retranslated into intelligible and real propositions at stages farther back than the introduction of self-consciousness. No

doubt I must also admit that of stages further back than the perception of objects (in my sense) I am unable to speak, for to speak of or give a name to anything, or to any process is (so far as the name has a meaning) to make the thing or process an object, to qualify it; if we speak of it therefore at all, before it is an object, that can be only either symbolically to metempirical thought, or proleptically as what it is capable of becoming when perceived. This must be also our answer to the objection, that to explain the genesis of thought by pre-existing material things, or by a pre-existing objective connection among states of consciousness, is absurd, if things and objects are constituted by thought; we must admit that before thought there is no objective existence, so that unless thought can be considered to throw existence backwards on stages before its own evolution, to a pure Idealist who rejects Metempiric, evolution is only a symbolism or category by which thought represents to itself its own genesis; but according to our present system, phenomena existed before they were perceived as such, and the 'things,' the relations of which through their phenomena produced thought, existed noumenally before their phenomena were by thought made into material objects.

If therefore by 'subject' we mean that which is not objective, that which exists absolutely and not objectively, clearly mind as subject is unknowable; for in this sense both mind and matter are necessary to knowledge. Mind as the inner series is knowable as an object; so in a sense is mind as the sum of experience or perceptions, not indeed as a whole but by its parts; so is mind as thought, or as the system of organic forms and categories, the developed 'subject,' which is in fact only a complex object made like any other object by classifying the relations of the inner sequences: but mind as simple subject, as the absolute subject of relations, as a factor and condition of the process of object-making, cannot be known apart as an object; it can only be described as the

sum of experience missing all its items. The objectifying process, as itself existing objectively or ideally, that is as fully and clearly perceived, includes a possible reference to a permanent self, such reference being of course conscious in the observing mind, which may or may not be that in which the process is considered as taking place; but as existing absolutely, or as unperceived, it does not imply reference to self at all, but is simply a process of organisation of relations which can be traced back ultimately to the simple element, united feelings or change in feeling. This is the nidus of subject and object; they are there together undifferentiated, and though logically we may separate the feeling of union or change, from the union or change of feeling, and say that the former is the rudimentary object, and the latter the rudimentary subject, clearly the two cannot be either known or felt apart. The object can exist only as united in a subject, the subject only as the union of objects or possible objects; they can be known only together, the formal and material elements are inseparable. But the process of objectmaking is the work not of any activity of the subject in its simple sense, but of the object which, however gradually (by the process which has no physical name but subjectively is called the Laws of Association), develops an organism which is often called the subject in a wider sense, the mind and the forms of thought and sense (other than time which is another name for the subject); and further objectification takes place only through this logical apparatus. But this being the work of the original object cannot be applied to the original subject; the 'transcendental Ego' can never without some metempirical assumption be brought under the categories, for if not their 'source' it is their condition and prior to them. And having to Metaphysic no possible *objective* existence it has no independent *absolute* existence, unless we like to say that the simple absolute *feeling* is the germ of the object, and the simple conjunction of feelings, that is, the absolute *relation*

is the germ of the subject. In this sense no doubt we may say that the material element is given from without; the formal element, the form of time as unity or continuity, is given by the subject.

But though neither subject nor object, each involving the other, can be known or felt apart, either in their origin or in their later development, states of consciousness are often contrasted according to what is considered their greater or less objectivity, and are accordingly distinguished as 'objective' or 'subjective' states. The distinction (which to knowledge is clearly only relative) corresponds broadly with the distinction between quality and feeling, or as Mr. Lewes puts it 'felt and feeling,' which may be called objective and subjective relations of the same state, though in fact the total state is *not* the same in both, and they are therefore not two 'aspects' of the same reality as Mr. Lewes would have it, but only the same central factor with two different 'escorts' or associated groups. The best example we have of feeling is perhaps in one of the vague states of pleasant or painful consciousness which come from the sympathetic system or from the general healthy or unhealthy state of the body, but which when felt we do not consciously recognise or refer to any object. On what then does it depend whether a particular conscious state shall take one aspect rather than the other? The answer, I think, is broadly this. Any conscious state may either be connected through association with ideas of other states, so that what fills consciousness is the relation between it and others, whereby it is perceived as an object, external or not (and here the present question differs from that between outer and inner series, though it is often confused with it), *or* it may at once seek expression in action, perfect or imperfect, in which case, so far as it is perceived at all, it is referred to the whole Ego, and not to other separate states; it is thus not an 'object' or quality, but an emotion or feeling. To take an example: if we go near a fire, the

resulting state of consciousness may become either the 'object' fire or the 'feeling' warmth, according to the trains it sets up; if it set up a cognitive train, it is an object; if an active, a feeling or emotion. The most subjective feelings, pleasures, pains and emotions, are those which most tend to action; the most objective cognitions, calculations, speculations, have little or no active power. I may point out that though, of course, where the cognitive train is *voluntary*, and to that extent active, the element of interest is necessary—and this element may be organically involved in many trains where it is not consciously felt—still it is possible that the train set up may be to consciousness wholly associative or cognitive, resulting not from habitual voluntary thought, but from the purely passive effects of habitual contiguity or similarity, so that a state of consciousness may be wholly objective without any conscious reference to a subject; but on the other hand, it is never the case that an impression is wholly transformed into action without setting up associative or cognitive trains (except in the case of reflex action), so that an impression at once wholly expressed does not enter the perceptive consciousness at all, and we see, as before, that no purely subjective state can be knowable. It may very likely be true that to our developed consciousness every state is a compound of the three elements, feeling, thought and will, force impressed, redistributed and expressed, and that in every case the name we give to a state is that only of its *predominant* element. These successive stages are followed in every passage of force through an organism, and are doubtless almost inseparably interwoven in association.* I will add that the very doubt

* I may note that the meaning here given to objective, and its relation to subjective, is not universal: often it is taken to mean external or physical, outer objects as opposed to inner. Others, as for instance Mr. Lewes, would apparently confine the word still farther to mean not the whole even of the objects derived from sensation, but only those composed of matter and motion, and derived from optico-muscular sense: thus feelings interpreted as modes of matter and motion, are

as to where the line between objective and subjective should be drawn shows that there is no impassable division between them.

Once more, then, we come upon the deeper question as to the origin of objective existence, one which, as we have seen, Metaphysic cannot answer except only by saying that objective existence or perception comes from absolute, by the organisation of the changes which occur in absolute feeling. These changes follow certain regular forms, which forms becoming organic or stereotyped in the organism, go to make the developed 'subject': the forms common to all sensation, such as time and space, making the sensitive subject, or the forms of intuition; the cognitive forms, such as the categories, making the cognitive subject, the understanding; and the forms of action making the moral subject, the hierarchy of emotions united under the moral sense. Thus far we can see; but when we come to the deeper questions, why change should occur at all, why the changing states should be held together, whether such holding together is internal or external, subjective or objective, or both, why form should be added to consciousness, what is the relation of the many to the one in consciousness, which of them is cause and which effect—these are questions with which mere experience can only deal very partially. It may, indeed, say that if we refuse to assume in ourselves a mind or Ego, apart from its states, with *originative* power, and thus to make the universe its creation, a hypothesis which is difficult to justify from the mere *per-*

objective, and all others subjective. This, no doubt, explains how for instance vibration is considered the 'objective' explanation of sound; still it can hardly be said that sound itself, for instance a tune, as heard, is not an object, even if that name be refused to an emotion or a category. However, that is all a question of names; there is no difficulty in principle. The question of inner and outer has been already considered, and the relation of vision to the other senses is a question with which Psychology and Physiology are clearly able to deal.

manence of the Ego (which seems all that is necessary to assume), we must conclude that the absolute feeling itself changes, that is, has parts and perceivable relations between them, and that it is these changes which when focussed and classified and perceived constitute or determine objects. The evolution of objective existence seems the finding of the one in the many by means of a conscious centre, the reduction of the flux of feeling to the unity of self. How this happens Metaphysic can, by the help of Physic, tell us vaguely by tracing the development of knowledge from feeling, but why it should happen it cannot tell us at all.

These are the main divisions of the question from its metaphysical side, but in practice they are not always kept separate, and questions are often asked bearing on this subject which comprise more than one of them. I will, before leaving the metaphysical region take two of these: that as to the relation between my feeling and the tremor in my nerve, and that as to the mutual action and reaction of my mind and body.

What is the nature of the connection between a state of my consciousness and the corresponding simultaneous nervous motion in my brain? Well to begin with, I deny that there is any such corresponding *simultaneous* nervous motion. No doubt science sometimes says that when I see a nervous tremor in a man's brain that means that he has at that moment a certain state of consciousness, or that when I have a state of consciousness another man could see a tremor in my brain; but that is because science is on those occasions trespassing on Metempiric, and is talking about things of which it cannot possibly know anything, and no wonder therefore that it finds them mysterious. Let us see then what science tells me as to my own conscious states which it and I do know. The most that it says seems to amount to this, that whenever I have a conscious state (either objective or subjective, such for instance as I call fire, or such as I call

warmth,—that does not matter at all), then supposing that I had a hole made in my skull and an elaborate apparatus of reflectors and microscopes directed to some minute portion of my brain, and having previously applied my closed eye to the apparatus, I were suddenly in the middle of my conscious state to open my eye, I should have another conscious state, and that of the particular kind which I call a tremor in my brain: and no doubt if the apparatus could be at once directed to a certain other spot this tremor in my brain would be again followed by a third state of the kind which I call a tremor in my optic nerve, and this process might be repeated any number of times I liked, except that after a time the tremors being all in the optic nerve would be like a repeating decimal, and might look like one continuous tremor.

Now as to this, I remark first that no two of these successive states are in any sense *simultaneous*; for even if we imagine the apparatus self-acting, we know very well that we could not be conscious at one and the same moment of two feelings, such as fire or warmth and a cerebral tremor, or two different tremors in different parts of the brain: so that it seems far more reasonable to say with the vulgar that the different terms of the series, the original feeling of warmth or fire, the cerebral tremor, the optic tremor and the rest are related to one another in some causal relation,—than to maintain with several recent philosophers that they are different ‘sides’ or ‘aspects’ of the same process or fact, for if this were so, the same fact or process might go on having different sides or aspects and turning itself round in consciousness until the crack of doom. No doubt cause and effect are in one sense two aspects of the same thing, but they are successive aspects not simultaneous, and it is only confusing to call a successive aspect an aspect rather than an effect. Now in this respect the relation between the terms of the series we have been discussing, seems to resemble that of cause and

effect rather than that of co-existent aspects, for I am not aware of a single fact which goes to show that the conscious state and nervous tremor are simultaneous and not, as the facts we have noticed seem plainly to prove, successive in time. But in one important respect we must differ from the vulgar (and in this respect Mr. Spencer agrees with them, *Psychology*, i. 20), for whereas they look upon the tremor as the cause, and the feeling as the effect, the facts seem to point to an exactly converse relation, the tremor being the effect, and the feeling the cause.

Next I remark that the relation between the successive states referred to above, presents no difficulty considered as a relation of cause and effect, except in the case of the first and second, and then only if the first be taken as an inner subjective feeling and not as an outer object. For that the first observed tremor in the brain should, when light is thrown upon it, reflected by it and transmitted (through the elaborate apparatus I have mentioned) to the eye, cause a second tremor in the optic nerve, is a very intelligible physical fact; such again would be the causation of the first tremor in that part of the brain which is sensitive to heat by an external object like fire. But suppose the original state of consciousness to have been not the object fire, but the feeling warmth; then it will be said there is a difficulty, for how can an inner subjective feeling like warmth cause any external material phenomenon like the tremor in my brain? I answer by pointing to the material identity which I have explained between subjective feelings and objects—the object fire and the feeling warmth are the *same thing*, only with different associations. Is there then anything in the elements which have to be added in order to convert the feeling warmth into the object fire, which makes it intelligible why the latter should be able to cause tremors, the former not? These elements consist of certain associated states, principally visual and tactual, and the only one which seems

of importance is the visible tremor, or other phenomenon which we know as the object or 'force,' 'heat vibration' and its property (which is also an elaborate organisation of visual ideas) of causing motion in distant bodies. Now no doubt it seems perfectly natural to attribute the phenomenon for which we wish to account, namely, nervous tremors, to this complex of visual ideas called heat vibration, and on the other hand very difficult to attribute it to the non-visual feeling warmth; but this is not because visual states are in their nature different to any other states as being less parts of self, or because the feeling warmth is not included as much as they in the whole external object 'heat,' but because nearly all my knowledge of the external world being derived from vision, external objects are made principally of visual states, and I can pass therefore more easily from a visual state to the whole external object than from any state of another sense, even though the latter ought also strictly speaking to be included in the whole object. Moreover in the present instance the property which we want to get, that of causing motion in nerves, is itself a combination of visual states, we may therefore easily understand how it is that the feeling of warmth without its visual associations seems incapable of producing it, or of being looked upon as an external force at all. The difficulty therefore in the instance in question is due to a defect or want of association of visual with other states. But I repeat that there is nothing in visual states essentially different from others, or that makes it mysterious how visual states should accompany or even cause or pass into other conscious states, or *vice versa*; in fact this is a process continually observed in what we call association, which is really nothing but one state causing or becoming another. Therefore all feelings whatever, are capable of becoming visual or material objects, and these are capable of producing nervous tremors, the difficulty therefore of the heterogeneity of feeling and tremor vanishes.

I shall be told, however, that though any feeling like warmth or sound may through association produce or become the *idea* of a visual or external object, this does not explain the point at issue; for the tremor is a visual *sensation* or *impression*, and the difficulty is how, for instance, the feeling sound is connected with the visual impression perceived as a tremor of the auditory nerve; this impression cannot come from the *idea* of the external vibrating body or air, for ideas cannot produce impressions. But it is not the idea of the vibrating air which I consider to produce the tremor; I only say that it is the absence of the idea of the external vibration or other visual phenomenon which is part of the whole external object, that makes it difficult to associate with the feeling of sound the idea of a nervous tremor; that which I suppose to cause the actual tremor is the actual external vibration or other visual phenomenon which my sense of sound points to, or ought to be associated with, and if there is none such, if my sense of sound does not point to any external vibration or other visual phenomenon, then I have good reason to be sure that it is *not* accompanied by any tremor in my auditory nerve. Suppose I could trace the whole progress of the vibrations from the sounding body through my ear to my brain; science says that when I *saw* the vibration reaching some particular spot in my brain, I should *hear* a sensation of sound; what, then, is to be made of this fact? Well, I suppose most people represent the process to themselves as a transference of something called sound from an external object, the sounding body, to me.

How, then, do we represent this sound when outside us, that is, as an external object or force? Surely not as aerial vibration alone, for that is not the whole force, it is hardly even part of it, for except as to certain tactual ideas which are practically evanescent, these aerial vibrations are light reflected from the vibrating particles, and manifesting them

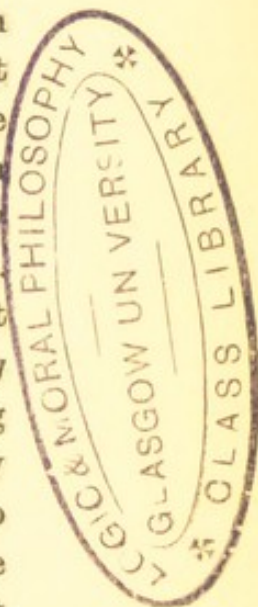
(in idea) to the eye ; when we speak of 'sound' as an external force or energy, we include in it not only its visual part, but its audible part too. But if this be so, where is the difficulty? The visual elements in the external object 'sound' produce the visual vibrations in ear, and brain, the audible element produces the audible sensation of hearing. The process or 'message' to the ear gives off at each point processes to the eye, and that to the eye gives off processes to the ear. And of these the eye, happening to be the keener, can trace the progress of the message to the ear, the auditory centre; but if our ear were keen enough, it also could trace the progress of the message through the eye to the optic centre. If this were so, we should have the difficulty of a tremolo shake in a particular region of space seeming to produce a sense of sight, as we have now that of a nervous tremor seeming to produce a sense of sound. The only difficulty in either case is from not remembering that there are two messages from the outside to ear and eye respectively, and that the outer object sound includes both a visual and an audible element, of which the former produces aerial vibrations and tremors of the auditory nerve, and the latter produces the sound as heard and the tremolo (if we could hear it) of the optic nerve. We have no more right to say that the audible sound is 'caused' by the vibration than that it causes it, except that by 'cause' we naturally mean physical, and that being an idea derived from the external world, is more aptly conjoined with a visible and tangible than with an audible object; the external world, a system of objects outside one another, being ultimately resolvable into tactual sensations and groups, of which visual sensations are symbols. The sound, therefore, and the vibration, if not 'two aspects,' as Mr. Lewes says, of one process, are two processes as affecting two different senses.

How, then, do the two messages come to be connected in this manner so that the audible message is also visible, and

the visible also audible? Now, on the side of the organism, we may of course answer broadly that the different special senses are various organs produced by evolution to carry different kinds of external forces or messages, so that when two or more forces are exerted by or combined in an external object or process, they are naturally perceived by different senses, yet that all forces being continually transformed and retransformed, each of the forces affecting a special sense is, on its way to the organ of sense, perpetually sending out little rills of other forces which affect other senses, so that the audible message is visible and the visible audible. The further details as to the mode in which the differentiation of senses has taken place are as yet little known; but the question which is still under discussion (*cf. Mind XVII.*, pp. 1 *sqq.*) between specific energies and functional indifference of the nerves of the special senses, seems inclined to resolve itself in the same way that the analogous problem of innate ideas and forms of sense and thought has been resolved: namely, into the theory that different nerves are probably endowed with greater or less facility in reacting to special kinds of stimulus, which may possibly be embodied in some organic difference of structure as the result of hereditary habit, but which even now is very slight, and which is rather a proof than a disproof of an original identity. But however this may be, if it be clear that the problem of the connection between nerve tremor and consciousness can be brought down to that of the connection between two different sensations from the same object, there is no 'mystery' in it if we take as given, as we must in *Metaphysic*, the coincidence of the two sensations: if, however, we try to get beyond this and enquire what it is that sends messages to our senses, and how such messages are (if at all) united, except in their union in our consciousness, these are questions which we must wait for *Metempiric* to decide.

The last metaphysical form of the question which I shall

take is that which deals with the action and reaction of my mind and my body. This is not dissimilar to the last, and the answer to it has been already hinted. Take the action of moving my hand away from a fire. Now, if I am not aware in this action of any volition, or, in other words, if the action be reflex, then there seems no difficulty; it is an action of matter on matter, the fire causing my hand to move by physical stimulation (through heat) of my nerves and muscles. The difficulty arises when the action becomes voluntary, that is, when the agent becomes not the *object* fire, but the *feeling* undue warmth, and the difficulty is to see how that feeling can produce an external phenomenon, the moving of my hand: this seems an action of mind on matter. Now, as to this, there is little to add to what we have already said: the feeling of warmth is the fire not fully perceived, that is, not associated with the visual states also included in fire as an external object; and again, the phenomenon or fact of moving my hand is only a feeling which has set up a cognitive train, so that at least we may say this, that between the warmth and the resulting motion there is no difference of nature, but only of form: objects are perpetually becoming feelings, and feelings objects, so that it is in no way mysterious that the result of the one should sometimes take the form of the other. This may be, perhaps, more clearly seen if we examine more accurately the case of one of those external sensations which are not so easily made into objects. Take, for instance, the muscular sense, the feeling caused by the movement of muscle. Now this is clearly an external sensation, a 'peripherally initiated' feeling, and so far as that goes, there is no reason why it should not be an external object just as much as a visual sensation: but as a matter of fact, being much vaguer and less definite, and having many fewer relations with feelings of the same order, these feelings cohere into objects less easily than visual feelings: but of course the movement of my hand is clearly an external object, and of



this object the muscular feeling forms an important part. But if so, what difficulty is there in understanding how a feeling can produce the muscular sensation of moving my hand? The two seem hardly to differ at all in objectivity—one seems as little material as the other. Yet this muscular sensation is clearly part of the external movement, requiring only the addition of certain visual associations to complete it into a physical fact of motion. The muscular sensation is in fact the most immediate reflex of the act of will, the visible and audible movement being mediated by the action of light and sound. Hence the muscular sensation is often confounded with the actual volition, yet it is clearly separable from it, and clearly external; indeed, the testimony of muscular sensation is the very strongest evidence we have of an external fact, its immediacy leaving less room for deception.

Still, no doubt, we come ultimately to the fact that the world of qualities and the world of feelings are generally parallel and independent, and touch only in certain special points and in certain special ways; but that on these occasions it seems as if the physical series of phenomena were interrupted and a noumenal subjective term were introduced, as if my will were for the moment the 'force' which the series transmitted, as if I had received it, or that which suggested it in me, from without through sensation, and expressed it outwards again in action; as if the bond of the series in its passing through me had become efficient cause, not physical law; as if for the moment the series had become real or noumenal instead of phenomenal—a conception the meaning of which we shall perhaps hereafter be able to appreciate. Yet even when passing through me science tells me that the phenomenal or physical side of it was going on all the time in a series of vibrations in my brain: how am I to explain that? Here again we come back to the fact which we have so often seen to be inexplicable by Metaphysic, the fact of the

connection of my mind and my body, my consciousness generally with certain special visual and tactual states.

METEMPIRICAL QUESTION.

Finally, let us come to the metempirical forms of the question. Now Physic can deal with mind and matter when both are phenomenal; Metaphysic with phenomenal matter and noumenal mind so far, but so far only, as the individual mind of the observer extends; to Metempiric therefore remain at least two important forms of the question: namely, first, the relation of phenomenal matter to noumenal mind *generally*, and secondly, the relation of mind, phenomenal or noumenal, to noumenal matter.

Now of these the former deals not only with the various metaphysical questions from a general point of view, that is applying them to all minds of a like nature with that which is the subject of metaphysical inquiry, namely, a perceptive intelligence and reflective self-consciousness such as each finds in himself (the only case in which the question of mind and matter can consciously arise), but deals with the general problem of the relations of matter to mind or consciousness in general, although in such consciousness matter and mind be not consciously separated.

For clearness sake, however, it will be best to follow the various metaphysical forms of the question, and we shall see that in each of these we are able from the standpoint of our metempirical theory, not only to generalise the metaphysical explanation but to carry it further down, and thus to give an explanation of facts which to Metaphysic were ultimate. Still, of course, we must at last come to facts or conceptions ultimate even to Metempiric: imagination may carry us beyond the proveable, but somewhere it too must stop.

Now the first of the metaphysical forms of the question, which takes mind to mean the whole empirical Ego, becomes when generalised, a question of the relation of the various

series constituting conscious monads to the material universe, or between matter and consciousness generally; and the answer to it is a generalisation of the former answer, that the material universe is a state or congeries of states of mind, matter as a phenomenal object is an evolved form of consciousness. But now we can approach the further question which was before insoluble, namely, as to the meaning of the evolution of matter from mind—a question which we have formerly answered, by showing that the evolution of matter or the world of objects in space, is a stage in the progress of the universe to self-consciousness. This no doubt only carries us to a further fact as to which further questions may be asked, but all progress and explanation is by steps: each step is a step gained. Again we now seem to get some solution of the problems which before were left as unanswerable; such as, How do I come to have a body? Why is my consciousness related to one part of me rather than another? [*This paragraph is unfinished.*]

Taking next the second metaphysical form of the question in which mind and matter were held to mean inner and outer experience respectively: this when generalised comes to be the question of the evolution of self-consciousness, or of the separation of self and not-self, or more generally the question of the relation between matter and thought: and our answer to this is again only a generalisation of our former answer. As to the genesis of the idea of an external world, and generally as to the development of the organised consciousness from the simple monad (the dynamical aspect of the question, which we found unanswerable by mere Metaphysic), we can now give on our metempirical hypothesis an answer which, if incomplete, is so only by the present deficiency of investigation. Still even now it has gone far—much beyond the limits of any short description. For the exposition of details I must again refer to the luminous expositions of Mr. Spencer and others.

I can only say a word on the more abstract form of the question. Matter as known is, in a sense, the product of thought, but ultimately the laws of thought are derived from the laws of that which is known as matter; matter is, in fact, as we now see, the means through which consciousness rises to self-consciousness, and feeling become organised into thought. The objective universe is the product of the thinking monad, yet apart from phenomena which constitute that universe there can be no thought, no thinking monad, and the thinking monad is made of that which it makes into the universe; the universe is phenomena focussed by a thinking monad, thought is the focussing of phenomena into a universe. The monad, therefore, is not external to the universe, it has no actual existence apart from its action, it is the focus at which the universe exists. As to the evolution of thinking from mere sensitive monads, that is the result of what is known as organisation, by which a certain portion of the outer world is formed into a machine for co-ordinating the various forces incident on a monad, and which being attached to it, prepares the raw material of phenomena for mental assimilation. The states of consciousness due to forces coming from the outer world through this machine directly to consciousness are then called the *outer* series, though they are largely affected by the passage through the machine, while those due to the redistributions of force within the machine, which are often carried on with much complexity and at great length, are called the *inner* series. To the monad consciousness both are at once outer and inner, outer in respect of their origin, inner in respect of their existence in consciousness; the distinction is not with respect to the monad, but to its material organism, and holds therefore only in the case of organised monads.

It is not needful to point out how the laws or sequences of the inner series are produced by outer laws and sequences through habit: as organisation becomes perfect, the more

general outer sequences and co-existences become organic, that is, become incorporated, as it were, in the structure of the machine: thus the analyses of this structure which are made from time to time, as by Kant, are marks of the successive stages to which organisation has attained. But by thus generalising our former answer we carry it deeper, for we saw that to Metaphysic alone experience cannot be safely carried beyond memory, but we now see that if strict verification be disregarded, the same symbolic method will carry us far beyond individual memory, beyond even the genesis of self-consciousness and the perception of an external world, down into the very rudiments of the universe.

Finally, we may note how from our present metempirical standpoint we have an easy answer to the other questions which puzzled Metaphysic, and which it was obliged to leave unanswered. Why should consciousness be broken up into changing states? Because the states of each centre of consciousness depend on its relations to other centres, and these relations are continually changing. What is the meaning of the relation of outer and inner states? Those coming from outside the organism, and those arising within it by the redistribution of its internal forces. We had to account for an objective fact the origin of which was outside the limits of observation or verification, and therefore of Metaphysic; namely, the origin of the division of inner and outer, thought and objects. The most likely direction to look was to see if we could discover any point of connection between any portion of these special series and the rest, or some other part of consciousness. Now, it is just the fact that such a point of connection does exist between a definite portion of the outer series and the whole consciousness, between body and mind, which has led to the hypothesis, long instinctively made, and though unproveable, equally irrefutable, which when logically extended to its full extent, renders the whole relation of inner and outer reasonably intelligible; the hypothesis of the exist-

ence of a plurality of centres of consciousness affecting each other according to fixed laws.

The third metaphysical form of the question was the relation of subject to object. We saw that this came ultimately to mean the relation between the successive states of a conscious monad and the unity which binds them together; that is, when generalised, the relation between the focus and the phenomena focussed. This leads to the question of the evolution of foci or monads from impersonal consciousness or psychoplasm, a question to which physical science may some day help us to give at least a symbolical or metaphorical answer, but which at present it is unprofitable to discuss. We may note, indeed, that our metempirical system does give a certain partial explanation of the questions, which to Metaphysic were ultimate, as to the reason of individual experience, why it should exist at all. Still, however far we go back, if we wish to be able to retrace our steps, we must still keep the germs of individuality or of difference: it is easy enough to resolve, like Spinoza, the many into the one; but when we have done that, how are we ever to get the many back again? So even if we can resolve monads into a continuous and homogeneous psychoplasm, we must still posit some special arrangement of this psychoplasm from which by its laws of action the existing universe, noumenal and physical, is logically derivable: the perfectly homogeneous is in equilibrium, though unstable, and at anyrate could not produce an unsymmetrical or multiform universe. I need not here repeat what has been said on the possible conscious unity of the universe, and on the question whether individual subjects are in some way united and made capable of mutual action in some common subject.

CHAPTER XIV.

OBJECTIONS.

To the theory of the universe of which the foregoing is an outline I can conceive many objections. First there is the general objection that it is a purely metempirical speculation and therefore unverifiable. And if I try to elude the objection by avowal, and say "that is just what it pretends to be," I shall be told that this is only to avow that it is nonsense. My first answer is, "Let him that is without metempirical speculation first cast a stone". Mr. Lewes, the great enemy of metempiric, though always boasting of his utter rejection of everything that cannot be verified by reduction to feeling, assumes without argument the existence of other minds, the very ideal of a metempirical speculation and the foundation of all the rest. Yet, even for a man who really avoids such speculations, if such there be, and to any other who wishes his theory to be stricter than his practice, the result of our investigation need not be useless, for he may take it not as a metempirical theory about other minds, but as applicable only to his own mind and verifiable by it, the results suggested by the physical symbols being translated not into metempirical but into metaphysical facts; or he may take it simply as a problematical conception, an idea by the help of which he can make the universe intelligible to himself; this is in fact the view of the speculation which as I have before explained was adopted in *Physical Ethics*. The universe is not wholly intelligible under the

lower category of substances or feelings and relations ; to satisfy reason we require a higher set of categories expressing the return from relativity to unity, the conception of monads ending in the idea of a total self-consciousness which we symbolise under the form of the monad of monads, the universal mind, the totality of existence. Thus noumenal existence is taken not as a metempirical hypothesis but as a 'higher category' required to solve the problems left unsolved by science. The knowledge that our own world is relative to our senses and phenomenal, points to an 'intelligible world' beyond, independent of our subjectivity ; and this conception is simply the natural result of trying to make the data intelligible to our faculties.

To all the rest who do make metempirical speculations, it cannot but be useful to have these speculations as nearly rational as possible, and to make their theories of the unknowable run alongside of their knowledge of the knowable. If it be once granted that there exists anything but my own mind, then my system is the rational result of that admission. If ever these pages should be read by a single intelligent being, and I could know it, or if he could know that I, an intelligent being, have written them, then I contend that there would be a sufficient basis for my system. As it is, though I can never *know* that my reader reads consciously, or he that I have consciously written, the assumption that such is the case, is one which both of us are apt to make, and if either of us make it he is a metempiric, and the whole system is let in.

But perhaps it may be said that it is absurd to apply to the 'unknowable' the categories of substance, causality and reciprocity (on which application our system of monads affecting one another according to fixed laws is based), because these are forms or principles of knowledge, and whether given by our mind or derived from experience are clearly applicable only *to* experience in space and time,

and have no significance except as applied to phenomena derived through sense. I answer first, that these categories apply not only to external phenomena but to inner noumena, for they apply to feelings as well as physical objects, indeed the notion of cause (and through it of reciprocity) is derived from the will and from it applied to phenomena. Physical causation is indeed only the general succession of phenomena, and when we say a particular event is the 'cause' of another that is only a device for isolating our subject of examination by detaching it from the general flux of phenomena. Still even as so detached it means properly only antecedent, and whatever it is more than this, is due to an association of the idea of efficient cause (which we acquire from the experience of volition and sensation viewed in the light of the universal metempirical belief in the fact of existence beyond our own conscious senses, a 'thing' producing sensation and a 'force' produced by volition), and this notion of causation, which already includes metempiric, is the 'category' which we propose to extend: our actions are the first illustrations of 'cause'. The two terms of this relation are in experience separately as sensation and volition, and in conscious volitional thought both are there; and the idea of the relation is one which is now probably organic in our mental constitution. The will in its developed form still enables us to form this idea of efficient cause, especially in two of its forms; the feeling of central innervation which accompanies the determination to act, and returns immediately in the phenomena of muscular sensation and pressure, and the similar feeling of central innervation which accompanies the play of attention. In voluntary muscular movement we seem to feel the passage of force from ourselves to the outer world of resistance, and in the trains of attentive thought we seem to follow the working of causality among our successive thoughts.

Secondly, I reply that if this is not so, these categories are all derived from phenomena and so from their noumena: and

thirdly that if we are to form any theory of the unknown it must be on the hypothesis that it is like the known in the qualities which constitute knowability, and that the metempirical data which we have assumed are not unknowable, so far as that differs from unknown, except *to us* as finite individuals incapable of transcending our own Ego. All therefore that we are really assuming in the metempirical use of these categories is, that they are principles not only of our intelligence, but of the combining intelligence (if such there be) which can grasp together different noumena, as our Ego combines the various elements in ourselves; or if there be no such intelligence, then that noumena are so related *inter se* that the relations of their phenomena are expressible as these categories. I may observe that this is rendered more plausible in respect of our actual system by the consideration that it makes noumena and phenomena the same things under different aspects; every noumenon is a phenomenon and *vice versa*: if so, why should not the principles which apply to and between the phenomena and to the noumena which we know, apply also to and between the phenomena of our noumena and the noumena of our phenomena? If our will 'causes' phenomena why should not this be true of other wills and other phenomena?

I may observe that my system, which is avowedly both metempirical and hypothetical, comes under the head of what Mr. S. Hodgson calls 'Constructive Philosophy,' and which he accepts as legitimate as opposed to Ontology. For though it professes a theory of 'Things-in-themselves,' this is arrived at only as the result of the rational working out of the hypothesis that there may be other modes of consciousness than ours the legitimate starting point of 'Constructive Philosophy'. Metempiric of this kind, that is 'other minds,' Mr. Hodgson therefore allows, and our system is of this kind and no other. The phenomenal universe is the universe as determined by those other minds; the noumenal universe is

the other minds themselves. Thus in imagining "new phenomenal worlds for new conscious beings" we have been led to see that the conscious beings themselves constitute a noumenal world, and that there is every reason to conclude that this is the noumenal world of which the others are phenomena. My method even is that pointed out by Mr. Hodgson, "combination of an hypothetical psychology with metaphysic clearly distinguishable from science on the one side and from metaphysic on the other" (*Phil. of Reflection*, i. 90). My data, too, for the construction of my metempirical world are the same that he admits, time, feeling, the postulates of Logic and the axiom of uniformity; and if he has succeeded in establishing the legitimacy of 'Constructive Philosophy,' I claim the benefit of that result for 'Physical Metempiric'.

The method which I have adopted has enabled us, as I contend, to arrive at a theory of 'Things-in-themselves,' which, while it leaves out none of the meaning on which the popular belief in them is founded, avoids the absurdities of 'unknowable entities' and the rest which make Mr. Hodgson and other metaphysicians reject them as 'nonsense'. Things-in-themselves are according to my system not unknowable generally, but knowable to themselves and unknowable to each other, that is, to us, each of us being one of them. To us they are 'knowable' only hypothetically or metempirically, or as Mr. Hodgson says by "inference" (*ib.* p. 145). I allow therefore that "existence means presence in consciousness" (*ib.* p. 165), and therefore knowability; I allow further that "whatever exists is phenomenal" (*ib.* p. 198), that "phenomena are the whole of existence," and that there is no "thing-in-itself beyond them" (*ib.* p. 168); but I say that phenomena are themselves Things-in-themselves, and that the universe of phenomena and the universe of noumena are only two 'aspects' or classifications of the same fact. The universe at any moment is the noumenon of which the universe at the

succeeding moment is phenomenon, and the phenomenon of which the universe at the preceding moment is noumenon.

No doubt so far as my system attempts to transcend the distinction of subject and object, I cannot claim Mr. Hodgson's authority, for he declares this to be impossible (*ib.* p. 91), as indeed it is by the method of Reflection which is founded on that distinction; but as to this I may say that their actual or conscious distinction (as I take it Mr. Hodgson would allow) can be transcended if not by reflection, by analysis, or at any rate by such methods as the observation of infants and lower organisms (*ib.* pp. 108, 109, 116); and that their potential distinction and separation is *not* transcended by my system, which (if we neglect the premonadic era, as to which I still postulate a germ or potentiality of monadism) recognises throughout subjective and objective, or noumenal and phenomenal, aspects of the universe, which it holds to be inseparable and conterminous with each other, and which together constitute the sum of existence. I have not, like Spinoza, taken an abstract analytical *element* of objects as a whole object, prior in time as well as in logic to the complete objects of experience; nor, like others, taken an abstract *aspect* of phenomena as a complete existence from which others can be derived; nor, like Hegel, assumed an absolute self-consciousness, Subject-object, prior to and evolving from itself feeling and consciousness. I have not, like Leibnitz and others whom he mentions, posited an object as 'condition' of the subject; nor, like Fichte, a subject to produce or as condition of the object; nor yet, like Schelling, united the two as 'elements' in a higher identity. Subject and object, both in their developed forms and in their rudiments, are in my theory essentially 'aspects' of the same fact, union of feelings, neither 'elements' nor 'conditions,' always distinguishable but never separable—the monad and the atom. But by this very generalisation I have shown what is the *meaning* of the two aspects and what is the rela-

tion between them, a question which to mere Metaphysic must always remain an insoluble mystery ; it can only take them as it finds them without explanation. And I have arrived at this not by analysis, not by confusion of the order of logic with the order of existence, but from scientific fact: *viz.*, from the observation of the order of evolution which points to the development of complex from simple, and to the gradual unfolding of the distinction of subject and object from a simpler original in which the two though logically separable are not consciously separate.

I start not with an element or aspect of objects treated as already an object and producing complete objects, nor with a subject prior to objects, but with an actual existent which is neither object nor subject but the nidus of both, and the actual existence of which we can realise even in our developed selves ; though of course we cannot clearly know or define it, for that would be to alter its nature by sharpening in it the distinction of subject and object, the nonseparation of which is its very essence. We can only know relations, and this original feeling or consciousness has as yet no relations ; it is that of which the terms of relations are made, both subject and object. It includes both : but Spinoza's 'Substance' and Hegel's 'Mind' clearly do not. Of the pre-objective stages I admit that I can speak only proleptically and indefinitely ; Mr. Hodgson himself speaks of such a stage of existence, and calls it 'primary consciousness,' which indeed he examines at some length (*Phil. of Reflection*, Book II., ch. iv.), though as a question of genesis, not analysis, he refers it properly to Psychology (*ib.* p. 267). This does not concern me ; in constructing a theory of the genesis of the universe, Psychogony must clearly find a place, and I have not anywhere confused it with Metaphysic, on the contrary have kept the two always distinctly apart. The main difference between my theory and the outlines given by Mr. Hodgson of Constructive Philosophy seems to be in the fact that Mr.

Hodgson's Unseen World is wholly phenomenal, whereas mine is also noumenal (a difference which I have already explained), and that his seen world as including "whatever is or may possibly become an object of perception and thought to beings constituted as men are" (*ib.* ii. 236) includes much of my metempirical world, for the empirical world to me includes only the perception, actual or possible, of the single observer. He also denies Personality of the Unseen World (*ib.* ii. 254), apparently not reflecting that not only feeling but the union of feelings is necessary for existence, and that such union implies a centre of consciousness.

A somewhat similar objection seems suggested by Mr. Spencer (*Principles of Psychology*, i. p. 161), namely, that even if "units of external force may be identical in nature with units of the force known as feeling, yet we cannot by so representing them get any nearer to a comprehension of external force," for the resolution of mind into feeling "leaves us as unable as before to think of the substance of mind as it exists in such units; and thus even if we could really figure to ourselves . . . a universal sentiency, we should be as far as ever from forming a conception of that which is universally sentient". But surely it is something to know that there are not two unknowables but one unknowable. From Mr. Spencer's point of view what right has he to speak of 'the unknowable' as manifested in feeling and as manifested in other shapes, or of the unconditioned Being common to subject and object? The fact that their manifestations follow the same law of evolution (*ib.*, p. 627) is evidently no proof of such a theory, on the contrary it proves the opposite, for if the difference between two orders of phenomena, so deep that it can "never be transcended while consciousness lasts," does not lie in their order it must apparently lie in their noumena. It looks more like two noumena manifested in similar ways than one noumenon manifested in different ways. If therefore propositions about unknowables are all

futile, Mr. Spencer has no right to make this proposition any more than we; if not, we have a right to make it as much as he, especially as we think we can arrive at it by more logical arguments. After all what we want is not to realise to ourselves any noumenon, either "that which is universally sentient" or the "substance of mind," but to know the *relation* between matter in itself and mind in itself and between noumena and phenomena, and surely if there are such things, even unknowable, the *relation* between them may be knowable, and if so, may teach us something as to the relation between our symbols of them, and make it no longer necessary for us "to rest content with that duality of them which our constitution necessitates".

Finally, I may observe that my system makes no pretence to give a final rounded-off account of the universe and its history, it does not even aim at reducing it to the smallest possible number of data, much less to what is usually called Monism. It attains indeed to the conception of homogeneity or Substantial Monism, but it recognises also the impossibility of transcending the elements of plurality in respect of form, and what it cannot do with any intelligible meaning it disdains to do in mere words by raising any fiction of an absolute or All-one of which this plurality is an emanation or phenomenon. Nor again does it aim at giving any account of the origin of the universe; it tries indeed to show the nature of the universe, what is the meaning of experience and the events that are happening all around us, and for this purpose bases itself on what all men practically allow to be a legitimate extension of experience (not a transcendence but simply a multiplication by each of his own), and shows the reasonable conclusions to be drawn from this hypothesis: but it makes as little pretence of arriving at a first cause or at an absolute being. It is in fact nothing more than science metempirically interpreted: it does not *leave* experience but only tries to make it more intelligible by hypothetically ex-

tending it. It is an Ontology, but only on the ground that *φαινόμενα* are *ὄντα*.

Before I leave this preliminary objection to all Metempiric, as such I must enter my very strongest protest against such conduct as that of Mr. Lewes. He is the philosopher who of all others in recent times is associated with the bitterest attack against all forms of Metempiric (a word which he invented himself, and which we may thank him for giving). "Any inference which cannot be realised in feelings is illusory" (*Problems* ii. 17); "Ideas are symbols which have no value beyond reals, and reals have no expression but in feelings" (*ib.* p. 31): such sentences are capable of indefinite multiplication. Yet this same ardent anti-metempiric himself assumes, quite quietly and apparently quite unconsciously, the very essence of all metempiric speculation, the very fundamental doctrine of Metempiric on which alone, for instance, the whole of the present system is based. For he talks quite freely of the consciousness of others and of the 'human mind' generally, as if that was a thing that could be realised in any individual's feeling—nay he will not allow even a true objectivity unless "that which is presentable to *all minds*" (*ib.* p. 21). In what feeling of his own can Mr. Lewes realise this presentability to all minds? The denial of Metempiric and the assumption of other minds is such a glaring contradiction that in spite of Mr. Lewes's many good gifts to philosophy, it seems to cover his position towards these deeper questions with even absurdity. If a man says I believe in nothing but what I can reduce to feeling, how can he believe in the existence of any feeling which he cannot make his own? Once admit the latter and the whole of Metempiric rushes in.

Turning to objections as to the details of the theory: I can imagine it said that the assumption of a number of 'minds' or 'monads' mutually affecting each other and so producing phenomena, is not only gratuitous but actually *contrary* to

facts, not only metempirical but anti-empirical, for though our Ego may be considered a noumenal 'substance,' 'causality' and 'reciprocity' clearly do not apply to noumena, for experience tells us that one mind can not affect another. I answer that what experience says is that one mind can not affect another *directly*, but only *through phenomena*, and this is entirely consonant with the theory. Consciousness or mind is the only thing which in our experience affects or is affected; among phenomena there is no discoverable connexion between cause and effect, it is nothing but succession in a certain order: but in spite of Hume's assertion to the contrary I deny that this is so with a sensation considered as given from the outside, or with a volition considered as producing an effect outside us. We cannot help feeling that the connexion here is different from mere succession or physical causation, it is *efficient*. Moreover, clearly if experience can tell us nothing of other minds, it can not say directly either that they affect one another or that they do not; but if we assume that a conscious monad is affected from the outside at all, we must reasonably adopt the empirical principle that like is affected only by like, and thus suppose that one consciousness is affected only by another. I may add the remark that as matter in motion is the cause or at any rate the condition of all phenomena or sensations, in fact of all our consciousness, we may reasonably conclude that that of which matter in motion is the phenomenon is of the same nature as our consciousness.

Again, it may be said that the theory of monads does not really explain or comprehend our hypothesis as to 'Things-in-themselves'; for when we say that an object exists in itself we do not mean that it feels, else the consciousness of matter would seem to ordinary men no paradox but an evident fact. I think, however, that if we try to realise to ourselves what we mean by a thing existing in itself we shall find that we do mean that it has some kind of existence like our own; indeed

this must be so if we consider that our own consciousness is the only kind of noumenal existence which we have experienced, and can therefore conceive. I also think that when this is brought to clear consciousness it will appear self evident. I know that a vibration of air or ether outside produces certain tremors in my auditory or optic nerves, and that these tremors are accompanied by certain auditory or visual sensations: on this I easily start a theory that in the outside vibration too as well as in the inner there is something analogous to the sensation. When I pull a string, it is hard not to think that the pull of the string is like that of my arm, an idea which is strengthened when instead of a string I pull my other arm, which I then find pulls back with a conscious force like that of the pulling arm. "On lifting a chair," says Mr. Spencer,* "the force exerted we regard as equal to that antagonistic force called the weight of the chair; and we cannot think of these as equal without thinking them as like in kind": this he thinks "incredible" and "absurd," yet "necessary" if we realise force in itself in consciousness at all.

Dr. Carpenter holds a similar view, except that he derives our notion of external force not from our feeling of muscular tension but from the mental sense of effort such as we feel in fixing the attention, and he seems to prove his point by showing that we can lift a weight and feel effort, yet have no muscular sense: "a woman whose arm is sensorially but not motorially paralysed can hold up her child as long as she looks at it" (*Modern Review*, Jan. 1880). This feeling of effort we externalise as 'force,' which he thinks quite as essential to our notion of causation as the material condition (just as for the working of a machine, power is as necessary as the machinery), nor is it equivalent to the mere visual phenomenon motion from which it is entirely separate in origin. This view is entirely consistent with our theory

* *First Principles*, p. 58; cf. *Psychology*, ii. pp. 237 *sqq.*, 477, 483 n.

that force in itself is will, and motion its visible phenomenon, and matter its method of distribution. The muscular sensation is not the same as the volition, but only its most immediate reflected phenomenon. This muscular sensation is the mark of the expression of force by my muscles, and we are so led to think that the feeling of effort or volition which precedes it, probably precedes other manifestations of force outside our body. Again the same conclusion is pointed to by the doctrine that action and reaction are equal and opposite. If they be so at all, probably they are so in all respects: they are homogeneous in nature, as well as equal in quantity. The force therefore which I struggle against in other bodies must be of the same nature as in mine, a consciousness of effort: and as it is not so *to me* it must be so to the body displaying it, that is, such body must exist in itself with a consciousness akin to or homogeneous with mine. Thus we see that to men of science the doctrine is becoming no paradox, but a self-evident fact, and 'ordinary men' will soon follow.

We have already seen in considering the origin of the belief in noumena how nearly all the arguments which led to it point to some strong connexion between it and the belief in 'Other Consciousness,' and that in fact the proofs of the two run into one another. This is further evident if we consider that we can think of Things-in-themselves, if we think of them at all, only under the categories of substance, causality and reciprocity, and that these are ultimately forms of thought or can only be expressed in terms of feeling, which is in fact the only actual or conceivable material or basis of existence. If Things-in-themselves are held to exist at all, that must mean that they possess some form of what we know as existence, that is consciousness. Again the whole meaning of the hypothesis of Things-in-themselves is to give some explanation or cause of the objective existence of things in us; that requires a power of producing consciousness, and

if cause be homogeneous with effect that power can reside only in an external consciousness. Or again the idea of a Thing-in-itself is of some existent which holds together the various manifestations of the thing, and gives it a single and continuous existence; but unity and continuity are products of consciousness, and if *ex hypothesi* the unity and continuity in question are to be not in the perceiving mind of the observer but in the thing which he observes, this can only be because the Thing-in-itself is a conscious series—otherwise why should we represent a number of successive phenomena as one thing? They would be rather a chain of different things perpetually succeeding one another; there would be no 'self' of the thing changing its relations, giving out or receiving motive force and manifesting itself in different ways, but only a number of unconnected momentary and vanishing phenomena; no change, no mutual action, but only succession; no thing at all except in us. After all perhaps the most conclusive way of putting the matter is, that existence means to us some form or phase of consciousness, and that self means a conscious series; hence if we imagine things to exist in themselves, that must mean that they are conscious, and are or contain monadic series. When we say there is unknown existence outside us we must, if that mean anything, use the word in the sense it has as applied to the sphere of the *known*. If it be answered that consciousness may be the *form* of existence to us, as space is the form of coexistence, but that existence beyond us may be something very different, I reply that, if so, it is not to us existence, and we have no right to call it by that name: if *we* talk of existence we must talk of what *we* mean by it. Or again, we might use the argument from exhaustion, for if all existence be either objective or subjective, then it is clear that 'Things-in-themselves' cannot be objects or qualities, for the existence of these is only in the perceiving mind, that is, not in 'themselves' but elsewhere; if therefore all such minds were taken

away, 'things' would lose this kind of existence altogether; and if any existence be left to them in themselves it must be subjective, that is, must be of the nature of consciousness in them, not a product of perception or thought in others. It must therefore be metempirical or unknowable (except to itself), for knowledge is in us and not in it; so far, therefore, as it is known to us, so far as it is a material object, it is not in itself but in us. But if so, and it has any existence at all in itself, what kind of existence remains but such as we have in ourselves, consciousness? Our own consciousness is the only 'Thing-in-itself' we know, the only key we have to the nature of the noumenal universe: all our other knowledge is phenomenal only.

Again, it may be said that the theory that a conscious state is the noumenal thing of which a nervous tremor is the phenomenon, is refuted by the fact that the same tremor in my nerves is sometimes accompanied by consciousness in me and *sometimes not*, a fact which is evident when we consider the automatic actions like respiration or walking which are only conscious when we *attend* to them. To this I give two answers; first, that it is no established fact, on the contrary there is no evidence that the same *total* tremor is sometimes conscious and sometimes not; a *portion* of the tremor may be there, but that part may be not the phenomenon of *my* consciousness but only of some monad or monads connected with me by organisation, and it may in certain instances not pass on by the channel which leads through *me* but by some shorter channel, through some less central monad of my organism into action: an action of my body may be in some cases my conscious action, when the cosmic series passes through me, but at other times it may be to me purely physical or external, affecting me only through its phenomena. My second answer is that when the whole tremor is repeated, the corresponding conscious state may exist in me but unperceived, undiscriminated, and therefore in the narrow

sense unconscious—such unnoticed presence being often proved by the sudden perception of a noise or other sensation which must have been long in consciousness but has been obscured by some object of greater interest or vivacity: for further elucidation of this point I refer to Mr. Lewes's Third Series of *Problems*, and to Leibnitz.

Another argument which I can imagine against the identity of conscious state and atomic motion is that whereas the same external force always produces the same motion in an atom whatever other forces be at the time acting upon it or have lately acted on it, this is not the case in respect of conscious states, for the same external object may under different circumstances produce in me very different feelings. Whilst my feeling depends not only on the external cause but on my 'state of mind' at the time, physical science tells us that there is no similar phenomenon in respect of motion. But if the laws of motion do not apply to consciousness or those of consciousness to motion, it is clear that motion and consciousness cannot be identical. The explanation of this is that my Ego is acted on by the outer force not immediately but mediately through my organism, the state of which (that is the mutual relations of its constituent atoms) at the time largely modifies the influence which it transmits. It is this state of the organism which constitutes the 'state of mind'; the Ego itself never alters, only its feelings for the time being are different, just as the atom is always the same and only its motions vary. The same must be our explanation of the fact that motion continues undiminished till checked or altered by interference, whereas a feeling if left alone gradually disappears and fades away. The position of an atom in relation to others may make a continuance of a particular motion impossible, as in the case of chemical action, which ceases when a particular change of relative position is accomplished whereby the moving atom is brought under new influences which bring its motion to an end, although the

original stimulus may be still continuing. A similar answer might be given to a similar objection that whereas motion varies directly with the motive force, consciousness according to Fechner's law varies with the logarithm of the stimulation: I am inclined to look on this law as a law not of the transformation of nervous motion into consciousness, but of the transformation of stimulation of the sense organ into nervous action at the centre of consciousness. Still it is not necessary to hold that if the motive force acting on the central atom be doubled the consciousness is likewise doubled, for motion is capable of unlimited increase in extent and velocity, but consciousness which can vary only in intenseness is not indefinitely intensible. It may therefore well be that the intensity of consciousness does not vary directly with the velocity of motion or the extent of vibration: this would not affect the general fact that wherever there is motion there is consciousness.

Again it is said that the hypothesis of a multitude of noumena is illogical, because we cannot attribute to the absolute reality underlying phenomena any relations of difference, for differences are clearly phenomenal relations; we must therefore positively ascribe to it no difference: "In refusing to predicate multiplicity of it do we not virtually predicate of it unity? We do, simply because we cannot think without so doing." Now, first I deny that differences are phenomenal relations only; there are also noumenal differences. For otherwise how could there be any noumenal objects,—will, thought, pleasure, pain, and the rest? If it be answered that ultimately, if we take away all that thought gives in the making of objects and try to find that which is given to it, we get rid of all relation, for relation is the work of thought: I reply that this is to confound absolute existence (which an outsider may treat either as noumenal or as phenomenal) with noumenal (which may be either absolute or relative); and further that it is not true, for though we cannot

qualify the simple feeling which underlies consciousness, we can and must say of it that it contains differences and even differences among differences, for of these differences perceptive and objective existence is made; the simplest rudiment of consciousness implies not only 'there is' but 'there are,' a difference amid unity. Hence even if we refuse to give the name of difference to the absolute relation which when objectified becomes the relation of difference, we must acknowledge that there exists absolutely both in noumena and in phenomena (for there is no difference between them in this respect) some mobility or change, nay some change among changes, some relation or condition which makes knowledge or perception possible. If therefore we consider thought to add all that we can take away by analysis, and the remainder to be given, we must conclude that change or difference is given. Besides, if differences be not given, but added by the percipient mind, the universe is merely its caprice and has no connexion with any noumenal existence. The reality of the material universe as such, is in the relations of its parts, not in the persistent force underlying all, which is always the same; and if the latter be the only 'given' element, or the only thing having a noumenon, then we must have some new device for accounting for the phenomenon of its specific arrangements and combinations. But whatever may be the verdict as to the nature of the ultimate datum or material of my individual consciousness, clearly if I go beyond this and assert experience other than my own (and this is the only way in which I can rationally arrive at a reality underlying phenomena), I am obliged by the very nature of the hypothesis to predicate of this other experience at least *numerical* difference from mine (or some relation which I can only call by this name); and also, if I am to be guided by phenomena, to predicate of it not only something corresponding to numerical distinction of parts, but such

mutual relations of parts as correspond to the mutual relations of phenomena.

If there is a noumenal world at all, how can phenomena have arisen except from a plurality of noumena. A single monad, or noumenon, could never have any phenomenal existence—the very condition of knowable existence in a monad is its relations with other monads. Moreover, if motion be the symbol of consciousness, a single monad could have no conscious existence. Our theory is therefore entirely distinguished from what is generally known as Atomism, for with us the objective existence, both noumenal and phenomenal, of each atom *consists* in its relation to others (have we not defined it as a centre of force, a mathematical point?); just as our theory, that the objective existence of a state of consciousness in a monad consists in its relation to others, is inconsistent with the 'subjective atomism' of Hume. Nay, a single noumenal being could not only have no phenomenal existence, but no conscious noumenal existence, for without change there can be no conscious existence; but the changes in monads are due wholly to external relations, just as no internal action will produce motion of the whole—a single noumenon, therefore, could never exist, either noumenally or phenomenally, for it could never change. If it be said that its parts might change, I answer, first, that would make its parts exist but not it; and secondly, I ask, are these parts and changes ultimate? If so, the parts are separate noumena; if not, how came the one to have parts with changing relations? It clearly could never produce them of itself. If it is objected that to speak of relations among noumena is to imply a unity in which noumena cohere or can be compared, I answer by the admission already made, that the word 'relation' as applied to monads *inter se* is only a symbolic expression of the two hypotheses or facts, that phenomena come from noumena, and that phenomena have mutual relations. Here, however, we are merely concerned

with the plurality of noumena, and that is a hypothesis which is necessarily involved in any metempirical system whatever; for if noumena are not plural, I am the only noumenon, and this is just what I cannot believe, and on my disbelief in which my whole Metempiric must rest.

Or again, to put the argument in a different form, let it be granted that spatial relation and differences of quality are the forms or factors in perception, added by the perceiving mind and not given *ab extra* by the noumenal reality. Still the mere fact that such reality is capable of being arranged in these forms or relations, shows that there is something in its nature answering to that arrangement. If there is no difference in the 'given' element, why should the understanding apply one category rather than another, and where does the difference of sensible qualities come from? If there is no real or noumenal fact which determines what relative positions in space, and what relative differences of quality objects shall assume in perception, then the physical world is a mere arbitrary creation of the mind, and the reality which we imagine to 'underlie' it, does not underlie it in any intelligible sense at all, but is something entirely separate from it. But if so, the whole ground for asserting the existence for such reality disappears. I argue therefore, that if, from whatever cause, we believe in the existence of a noumenal reality, of which the physical universe as known by us is in some way the phenomenon, such noumenal universe must contain differences and relations; must in fact be a plurality of parts in mutual relations, which relations are translatable into the spatial and physical qualities which are their projections on the plane of perception. We have no right to argue that if space be phenomenal only, there can be no noumenal plurality, for space as we have seen is not even the only form of coexistence thinkable by us. Take for instance musical harmony or numerical aggregate: it is true that if we try to picture this to ourselves we do so

in forms of space, as is exemplified in the descriptions given of their procedure by some of the extraordinary calculators, who seem to represent operations with large numbers, by movements of figures in space ; but it is clear that this is not essential, and that we can think of a numerical aggregate otherwise than as arranged in space, indeed this is the nature of the arithmetical process to all but exceptional minds. Space, therefore, though a form of coexistence, and one which we are inclined to use in preference to others, is far from the only form which we can conceive ; its phenomenal nature does not, therefore, prove the phenomenality of all coexistence and plurality whatever. And if it be answered that Arithmetic is the science of pure time, and that time is like space a form of perception, I answer that time is as I have shown, a form not only of phenomena, but of noumena, for it is involved in the very nature of consciousness—and even if time, as perceived by us, be phenomenal, there must at least be something of the nature of change among noumena, in order to explain from them the existence of the phenomenal universe, and the consequent organisation in us of these very forms of time, space, causality, and the rest.

It may be that both Locke and Kant are right, the one as to the secondary, the other as to the primary qualities, in denying that as perceived they are anything but subjective ; but if it be true that phenomena come from noumena, why should not these forms or relations, as much as the unrelated states or matter, have their noumenal prototypes ? Of course with a doctrine, like Kant's, that phenomena do *not* wholly come even ultimately from noumena, but are partly due to the inner *à priori* forms of the subject, which may or may not have any resemblance with the noumenal world, my philosophy is wholly at variance. With such a doctrine, Ontology is impossible, except from the side of the subject (for Kant's proof of noumena from the necessity of a cause for our sensations, is

clearly inconsistent with the subjective source of causality), and no consistent theory of evolution can be maintained except a logical. This brings us to Fichte and Hegel, who, I venture to think, have failed to produce the objective universe from the subject, or actual reality from thought. Many cannot be got out of the one. But from this point of view, the admission of Things-in-themselves at all is superfluous, and leads necessarily, as for instance, in the case of Schopenhauer, to what amounts to a practical Dualism of Wille (or whatever we may call the noumena) and Vorstellung, to explain the connexion of which we are obliged still to use some such idea as causality, though we may try to get out of it by an occasionalistic phraseology; for how can an occasion make known its presence unless it has some effect on the agent of the subsequent action? Again I may observe, that if plurality be denied of Things-in-themselves, these become first Ideas, and then the Ideas have to be themselves resolved into a single all-absorbing substance. But from this there is no return to plurality; if phenomena come from noumena, then unless the conditions of plurality are in the noumenal world, where does it come from? Why should the One become multiform, and why should it evolve itself by definite stages and in individual forms?

But the objection just considered, or a correlative objection, may be carried on as follows. This numerical plurality to which experience points is not in the true noumenal world; on the contrary, the whole argument turns on the old antithesis, which Hume reduced *ad absurdum*, between thought and reality, and the accompanying identification of the real with the momentary unrelated consciousness, that which is *given*, that of which nothing can be said,—the truth being that thought is the only source of reality, the only absolute or noumenal existence. But if this be so, experience points to no noumenal plurality, for thought is the universal and permanent element which makes the particular individual,

whether in the perceived object or the perceiving mind ; it is everywhere and at all times the same with itself, the true self which does not slumber nor sleep and neither is born nor dies, the self whose presence in us and in others makes knowledge possible for us and them, and constitutes our and their identity. Thus, the only true reality is the one self-conscious thought, not a thinking substance, but an infinite and eternal subject which makes both mind and matter "the constant reality of which events are the changing appearances," and of which our minds are partial manifestations, "the self-conscious subject in relation to which alone an intelligible world can exist, and the presence of which in us is the condition of our knowing it".* Now in answering this I shall refrain from asking how I am to know that thought or relation is 'universal,' except that one relation is in me similar to another, and that this similarity is perceived in my thought ; or 'permanent,' except as permanent possibilities to me ; or that my thought is 'the same' with any other, in any sense except that it seems to me similar, or produces phenomena which are to me similar (a natural result of its having been developed in the same way and by the same causes as mine) ; or what meaning I am to attach to the doctrine that my 'self' is constituted by the presence in 'me' of what is common to me and all other thinking beings ; or what is the meaning of separate selves at all : it is for the present purpose sufficient to retort that whether 'real' is more fitly applied to objective or to non-objective or absolute existence, and whether 'noumenal' is more fitly used as the opposite of phenomenal or as synonymous with objective or ideal, are mere questions of words, about which Professor Green and Professor Caird may be right and Locke and I wrong, but that is no reason for ignoring non-objective existence altogether and assuming that if nothing but thought can give 'real' existence there is

* Green's *Hume*, Vol. I., p. 156.

no other existence at all. The present theory is based on the separation first of noumenal and phenomenal, and secondly of absolute and relational or objective existence, and is an attempt to show how the members of each pair are related, and how the one division is connected with the other. To ask in which of the different senses the word 'existence' is most properly used is only a dispute of words; but to confuse one sense with another, or to deny one of them altogether, is a mistake more than verbal. Now it is one portion of the present theory that what I call 'objective,' but which may of course, if we like, be called 'real' or even noumenal existence (though this inevitably mixes up the question of *phenomena* and their opposite), is not ultimate but derived from simpler elements, and that God or the universal self-consciousness which Professor Green considers its origin is rather its consummation; not its source but its final outcome, not its condition precedent but its ideal apotheosis. The real question is, Can we get behind 'real' or objective existence? If so, we may trace its evolution not only backwards to an unreal or non-objective stage, but forwards also to a perfection not yet realised; and the idea of God becomes an aspiration, and the idea of reality an idea of development. If not we must take it as it is, that is, as now actually existing in its completeness though not actualised in us. This can only be in an infinite and perfect mind: God therefore becomes a necessary datum, and 'reality' is given in Him. With Professor Green's argument that no such evolution can possibly be imagined without *petitio principii*, for that the process of objectification cannot be subjective to its own operative agency, I hope to deal in a following chapter.* I will here, however, notice a different argument to the same effect.

* [This chapter does not appear to have been written. The probable drift of the author's argument may be gathered from passages in Chap. XIII.]

It may be said that the hypothesis of an evolution of the physical objective universe, out of a pre-objective unperceived assemblage of monads, is really "to conceive potential existence passing into actual existence by some inherent necessity; which we cannot do. We cannot form any idea of a potential existence of the universe as distinct from its actual existence," for if it is nothing actual, how can it have any quality? We must suppose that "existence, having for an indefinite period remained in one form, must be conceived as passing without any external or additional impulse, into another form; and this involves the idea of change without a cause, a thing of which no idea is possible".* To this I answer, that it is no harder to conceive subjective existence passing into objective, than to conceive one physical force passing into another; if the one involves the idea of 'change without a cause,' so does the other, for what is the cause of causation. The impulse is throughout internal; but if it can produce one object from another, why may it not produce one mode of existence from another. If physical *esse* is *intelligi*, and intelligence has been evolved from sentience, clearly physical objective existence *has* been produced by the ordinary impulse or inherent necessity of evolution. Potential existence is a perfectly real conception, and distinct from actual; one part of a cause is potentially but not actually its effect, and we may say that an effect existed long ago 'potentially' in its causes or conditions which may each be traced separately and in abstraction from the rest. Thus with the pre-objective universe; its objective and physical existence was no doubt potential only, that is to say, it wanted the completing factor of a percipient mind;

* H. Spencer, *First Principles*, 3rd ed., p. 32. Mr. Spencer uses the argument against the hypothesis of self-creation of the universe; but it seems to me that it might be plausibly urged against its self-objectification, which if the universe mean the universe as known, the physical cosmos, is exactly the same thing.

but the factor of its future objectivity which depended upon itself existed even then, though not objectively, and cannot be impeached by the absence of the objectifying machine, which itself afterwards produced; and even its relations, though they were as yet 'nothing' in objective existence, existed absolutely in the successive phenomena of its various monads. My system aims at showing how objective existence generally is evolved from non-objective; the different factors of objectivity were not then brought together, because an objectifying monad had not then been evolved; but what I may call the external factors of objects, and the mutual action of monads, even then existed, though not as objects to any mind who could identify them and call them by names. No doubt, as Mr. Spencer says, this only takes us a step back, and implies "behind this potential existence a more remote potentiality; and so on in an infinite series, leaving us at last no forwarder than at first"; but I have yet to learn that a step in advance leaves us 'no forwarder' because it does not bring us to the end of our journey. Indeed, for my own part, there seems to be considerable delight in the mere exercise of walking, and none the less for the perception that the walk may be extended indefinitely. However far we go, we must still leave the germs of objective existence, of multiformity, in order to be able to retrace our steps. The equilibrium of the homogeneous, even if unstable, requires the interference of some further force 'however minute' to disturb it; unless, therefore, we are ready with a *Deus ex machinâ*, we can never safely go back to absolute homogeneity, much less to absolute unity. Spinoza is a warning against any such temptation.

Again, it may be said that our whole system rests on the unwarrantable extension to the noumenal world of a principle which we know only as holding good among phenomena, the law of causation. This must, says Schopenhaur be of either objective or subjective origin, but in either case

it lies wholly on the one bank or on the other, and cannot serve as a bridge. I have already said something on this head, but I will here remark that the conception by which I figure to myself the relations of noumena is not that of physical causation at all, but that of efficient causation, which is quite different from that out of which I make the objective universe, being a noumenal not a phenomenal relation. My only experience of it, or rather of each of its terms separately (for the two terms can never be experienced together, except in a consciousness of which both cause and effect are states), is, on the one hand, in my feelings of impression in sensation, and on the other, my feelings of expression in volition. From these I get not, indeed, the idea of physical causation, as some have thought, for that is merely a certain kind of succession among phenomena, but the idea of a noumenal efficient causation, underlying the physical, as the innermost reality of the course of events. It is not a mere 'principle of sufficient reason,' which, whether *a priori* or given by experience, is clearly bound up wholly with the objective and phenomenal world in a single mind, being in fact (as Schopenhauer has shown) the basis of objectification, but a bond connecting one mind with another, the noumenon of which physical causation may be called the phenomenon.

Schopenhauer indeed says (*Welt als Wille &c.*, i. 119, ii. 41, 42) that between the act of will and its resulting bodily motion there can be no causal relation, because the two are simultaneous, and in fact the same thing perceived in different ways, one by the inner, the other by the outer sense. But this seems incorrect for this reason: the bodily motion cannot be simultaneous with the act of will, for it has to be perceived through the eye, and however quick the passage of light to the eye and of the impression on the retina to the brain, it evidently requires *some* time, so that the motion must be subsequent to the volition, though, of course, the

volition may continue till after the motion has commenced, and so run alongside of it. Again, there is more show of reason identifying the volition with the *nervous* tremor which precedes the muscular contraction, than with the latter itself, and if so, it again is clearly prior in time to the muscular movement. Clearly the relation between a noumenon and its phenomenon must be in time, otherwise the relation of phenomena *inter se*, physical causation, would also not be successive, that relation being only the correlate of the noumenal, or if it is conceivable that noumenal causation is not in time, and that time belongs only to phenomena (which I hold to be false) then the whole objection fails, because if no sequence be required, its absence is immaterial. I may remark that Schopenhauer altogether fails to show the connexion between these two senses, the inner self-consciousness and the outer perception (*anschauung*), or how the will or consciousness manages to objectify itself phenomenally. Unless the one is an immediate self-consciousness, and the other a mediate, which is indeed what he actually says is the case (*ib. i. 119*), that is, *through some causative link* (for what are 'means' or 'mediation' without causation), it is difficult to conceive how the difference could arise. The 'will,' he says, is *a priori*, and the body *a posteriori* (*ib. i. 120*); but prior and posterior to what, if not to some action between them? What meaning is there in objectification if all idea of effect be taken away? Besides he is not consistent in his denial of a causal relation between noumena and phenomena, for he admits that the differences of the latter must be due to the differences of the former. But how can this be except by something which we can only call causation? And unless the differences of phenomena do correspond to differences of noumena, then the relation of the two worlds disappears, and the phenomenal world is an arbitrary creation of the human mind (since sensation does *not* depend on volition), is independent

of all causation, or in effect is the work of chance. For the word causation I care nothing; I only demand that a fixed relation should be acknowledged between phenomenal and noumenal events—without which all speculation about noumena is fruitless, and the supposition of their existence unmeaning and useless.

Again, it may be asked, how can separate and distinct monads ever unite into a single personal consciousness? Matter suggests no principle of unity which could bind different monads into a single subject. To this I answer that there is no necessary reason for holding that different monad consciousnesses *are* combined; each may remain absolutely distinct, though of course its experience is altered and made very complex by its position in an organism. If it be objected that this is contradicted by the fact that my body contains a single Ego, yet is composed of numberless atoms which are continually changing and being replaced by others, I answer by denying the fact. I have no reason to suppose that my body does contain only one Ego, for anything I or anybody else can tell it may contain as many Egos as atoms. Indeed in the lower animals it is quite plain that there are more Egos than one, as for instance in starfish or in worms, which may be cut into pieces each of which attains an independent personality. The fact which science is supposed to have established, that consciousness arises only in a certain part of the brain, means simply that the central consciousness of the organism—that particular monad or system of monads which in the higher organisms controls the bodily movements, and the corporate expression of consciousness in the organism—is as a phenomenon located in the brain, so that it is only when that is reached that the body as a whole shows signs of corporate consciousness. But it is far from true that when the central consciousness is removed all signs of consciousness disappear, as is evident from the experiments with animals from whom the brain has been removed, which show plainly enough that

the inferior centres can by themselves not only perform reflex actions, but produce phenomena which we cannot refuse to class among the signs of consciousness even in its narrower sense. I may add that the central consciousness may be either in a single monad, or in a system of monads so connected that each shares substantially in the same motions; for instance, the atoms of a molecule with no internal motion would represent monads of which the Egos would be indistinguishable except numerically. If the latter alternative be correct, the whole central system or any member of it might be called the soul of the organism, so that even where consciousness was very highly centralised the soul would contain many Egos. But science herself shows us that the psychical life of the organism never in the highest animals completely attains the purely centralised or serial stage, and that in the lower organisms (as for instance in starfish) each part has its own psychical changes which only become co-ordinated or "have their various strands connected" with the development of a nervous system.* So far, therefore, from saying that an organism contains only one Ego, science says just the contrary. The mind or consciousness of a man is like that of a nation, not single but as multiplex as the unit monads which compose its bodily organism, and each of these varies in perfection and power over the organism only by its relative position in respect of the rest.

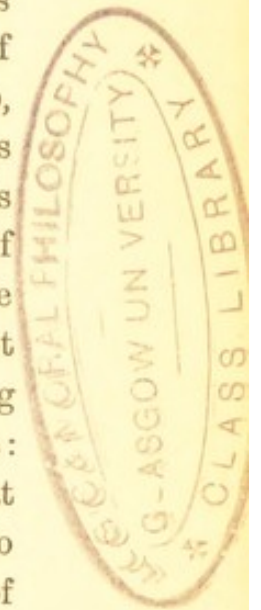
As for the atoms in my body continually changing, that causes no difficulty, for personality and memory are only present feelings; all I can tell is that the monad which I now call Me has certain affections which it interprets as past experience of its own, whether that is accurate or whether the fact really is that they were experiences of a monad placed in the same relative position as the monad which is now I, I cannot tell, nor does it matter. But if such union of monads

* Spencer's *Psychology*, pp. 396, 399.

into higher monads, not only phenomenally but noumenally, be established, I deny that matter suggests no principle of union among atoms : crystallisation and organisation are distinct evidence of the contrary. These produce natural objects each representing a congeries of many atoms connected on some natural principle of connexion, as distinguished from a block or lump of matter the aggregation of which is accidental or external.

Lastly, it may be objected that this theory of monads not only does not explain, but makes its very foundation of, the mystery of a conscious series bound together in time, and that it is really impossible for us to conceive how two feelings can be bound together into a connected experience. To this I answer, in the first place, that this is only the ultimate mystery of existence which has to be assumed by everybody, the fact that 'something exists'. If I take the smallest element into which I can analyse my consciousness, it still involves holding together in time, for if the time be diminished beyond a certain minimum limit, consciousness disappears altogether. Time, as felt, is not a series of mathematical points, of present moments becoming past, but separate bits of definite size ; though each of them in theory contains both past, present and future, in other words, has no limit to its divisibility. Like the pieces of a magnet, the smallest parts into which we can break up time are bipolar, 'looking before and after'. The strict *present* is no time at all, for it is absolutely without length : it is only a form or mark separating two parts of time, just as the boundary between surfaces separates two regions of space without occupying any. Time therefore, as a quantum, can no more be made up of presents than a surface can be made of lines, or a line of points, or matter generally of form ; an infinite number of nothings can make nothing : the only conceivable way in which time as a quantum or a line in space can be derived from points is as conceived to be traced out by a moving point, a conception

involving motion, and therefore already assuming time as a quantum or lineal extension as the case may be. No doubt time *as a relation*, the abstract form of sequence (like space as a relation, the abstract form of co-existence) may be applied by thought to any conceivable portion of time (or space) as a *quantity*, so that to thought, or 'objectively' or 'really,' time or space as a quantity is infinitely or indefinitely divisible; but this only shows that the very nature of our consciousness involves a holding together of parts of time, the minima of consciousness not being the minima of time. If this be so, the mere fact of consciousness that 'something exists' involves a temporal unity of consciousness, and the theory of monads requires therefore nothing but this universal assumption. If it be said that though this justifies the hypothesis of a single state of consciousness lasting over a definite time, it does not justify the assumption, without explanation, of a binding together of different successive states into a single experience: I reply that even if it be not true as has been suggested that all feelings, even those apparently simple, are (as we know to be the case with sound) really compounded of a number of rapidly successive units of consciousness consolidated together, and if we take without dispute the immediate verdict of consciousness, still here again if I take the smallest element in my own consciousness, I find that it involves *change*, that is, a holding together of different feelings: so that as a holding together of the different parts of a feeling is necessary to existence at all, or absolute existence, a holding together of different feelings is necessary to perception or objective existence; and the universal assumption 'something exists' must be taken to posit not any absolute, but objective or relative existence, for otherwise there would be no *thing* existing, no knowledge possible, but only a blank 'there is' and nothing more. For even time itself to exist in perception, not only must it be held together to form unit lengths to give the notion of a quantum, but the different



units must be held together, for it is the perception of the mark separating the units, the change from one to another which is the rudiment of the perception of time as a relation. Hence it is evident that if we go down to the very lowest depths of our consciousness and doubt so far as doubt is possible, we get to not only 'there is' but 'there are'. Therefore the doctrine of monads is only an extension to the other experiences, which the metempirical hypothesis suggests, of the fundamental characteristics of our own; if, therefore, any such hypothesis is rational, this is its rational form. I may observe that we do not assume 'memory' in the simplest monads, but only a holding together of sequent feelings. 'Memory' and 'expectation' are developed 'faculties' only found in the higher organisms. They are in fact a kind of body in time, which enables us to extend our 'self' beyond the point of the present for a certain distance backward and forward, just as our corporal body enables us to extend our 'self' a certain distance beyond the monadic point into the surrounding regions of space.

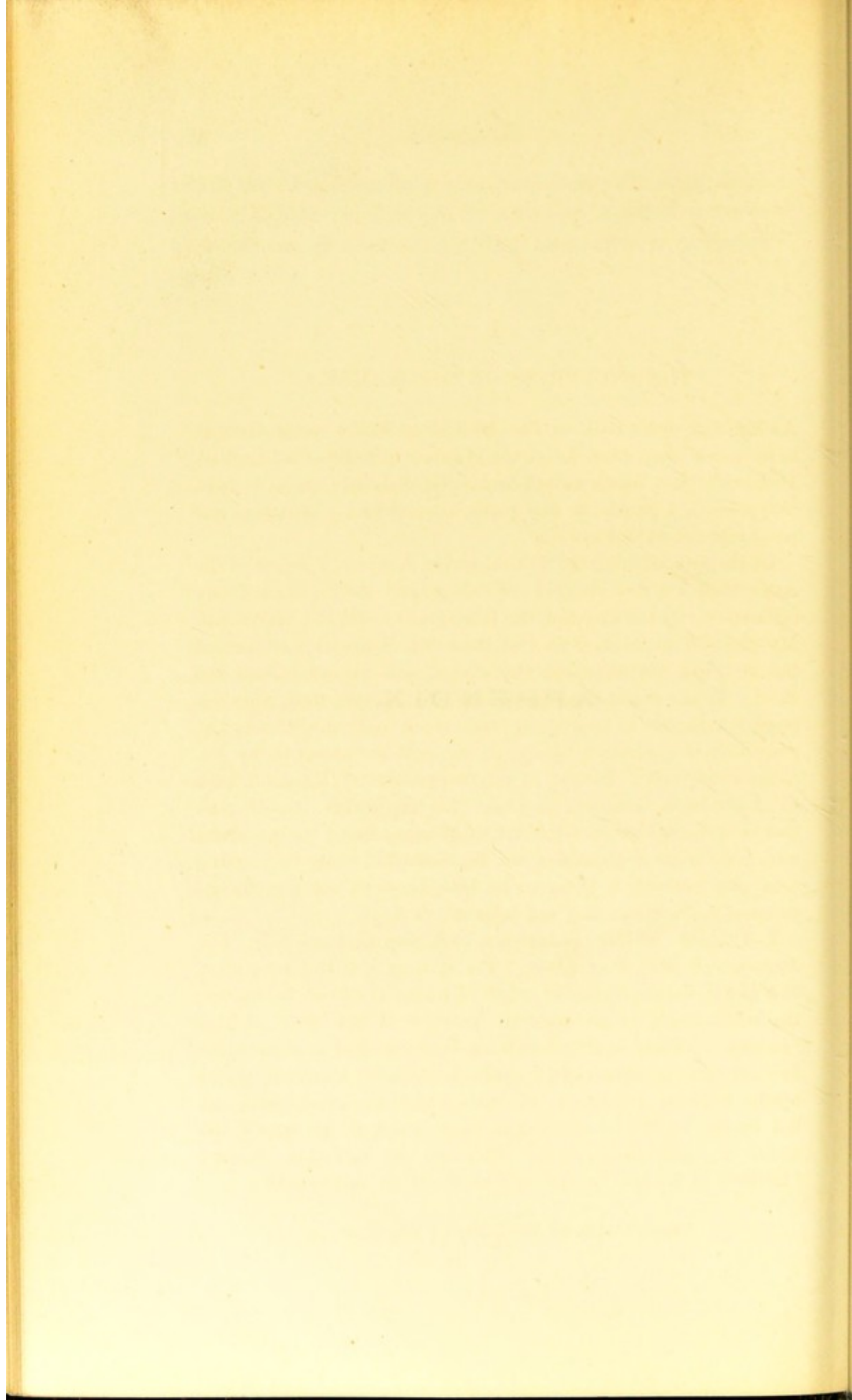
Secondly, I answer that if this temporal unity of consciousness is ever to be explained at all, that can only be, so far as we see, by a further application of the Physical Method, grounded on such future scientific knowledge as we may obtain, first, of the physical genesis of organisation and similar phenomena, and secondly, of the evolution of the material atom from some simpler element. In forming our system so far, we have used only two physical conceptions, Evolution and Atomism, and we have done so from the wish to tread only on solid ground; but here clearly the method does not leave us, and there are already certain facts which point us onward. For instance, the fact that radiant heat, or light, has energy, seems, as Prof. Clifford has pointed out, to prove that the 'ether,' or substance of which light is the motion, is of the nature of matter, for matter cannot be better defined than that which has energy. And if the material atom can be

resolved either into some modification of the luminiferous ether, or into a 'vortex ring' (whose ultimate substance is a continuous and perfect fluid of which the particles of the luminiferous ether are also smaller vortices, as Sir W. Thomson suggests), or into a re-entering electric current (that is, a continuous current of that motion or change of state which is periodically reversed in light, as Prof. Clifford thought possible), or into any motion or modification of some simpler continuous substratum,—that will involve an explanation of how it comes to be a centre of force, and of how the discontinuous is evolved from the continuous; and then by giving our metempirical hypothesis a parallel extension, we shall have some suggestion to offer as to how consciousness becomes united in centres, and how personal, and through it, objective existence becomes possible. If so, we shall explain the creation of the physical universe and the evolution of the many from the one—of minds from consciousness. We shall also then be able to say whether all monads are alike, differing only in their position and movement relatively to other monads, or whether they differ in nature, all being centres of force, but not all being centres of exactly equivalent or similar forces.

As it is, I contend that the Physical Method gives a better explanation of the facts of memory and recollection than any other, by showing how a permanent physical structure modified by past experience, reproduces it or a similar experience when force is passed through it. On the spiritual theory, past ideas and thoughts to be recalled by the mind must be imagined to be stowed away in some fashion, to exist all the time till they happen to be wanted, a conception impossible to realise, and for which there is not the slightest foundation apart from their actual reappearance. One can understand how a nervous structure is a 'permanent possibility,' like a barrel of a musical box, but in what other way a possibility can be permanent, or what is the nature of the process by

which the 'Ego' recalls a past idea, passes all comprehension. All that the Ego can do is to bind together states of consciousness which do occur: it has no creative or recreative power.

APPENDIX.



I.

THE 'SUPPRESSION' OF EGOISM.*

As Mr. Sidgwick's book on *The Methods of Ethics* seems thought to have cast some discredit on the system which he calls 'Egoistic Hedonism,' and which indeed he himself distinctly claims to have 'suppressed,' I propose in this paper to consider his treatment and non-treatment of that system.

Of the principle that the Ethical end of Action is Pleasure of the Actor, there are three distinct and independent proofs, which I may call respectively the Physical, the Introspective, and the Intuitional. My aim will be to show that of these Mr. Sidgwick has omitted the first, has not disproved the second, and has established the third. If any one of these propositions be accurate, then, since one proof is sufficient to prove, and truth is not made doubtful by the possibility of reaching it falsely, Egoism will be untouched by Mr. Sidgwick's attack. Instead of the 'suppressor' of Egoism, I hope to show him its unwilling prophet. Let me remark at the outset that it is the Science, not the Art, of Morality that I am concerned with; the truth of principles, not the method of using them. If a man can establish a thing to be true, he need not care for its practical application: that will take care of itself.

I. The title of Mr. Sidgwick's book should have been *The Introspective Method of Ethics*. For starting with the assumption of a Moral Faculty, into the origin of which it refuses to inquire, the whole book is an elaborate analysis of the dicta of this 'Faculty'. There is therefore but a single method examined, the Introspective; and the various so called 'methods' are distinguished by the different axioms or principles which Reason dictates, and not by the method of arriving at them which is throughout the same, *viz.*, self-interrogation. They are in fact not different 'Methods of Ethics' but different results of the same method.

* Reprinted from *Mind*, No. VI. (April, 1877).

Of course an author is perfectly justified in confining himself to any branch of a subject which he may select, and so impartial and thorough an investigation of any single method as that which Mr. Sidgwick has given to the Intuitive method of Ethics cannot fail to be of great value, if the only result were to bring into clear relief the divergent results to which such method leads and its consequent uselessness for scientific purposes. But it is hardly fair to take arbitrarily a single method, and treat it as the only one possible, or even as the only one worthy of a particular name. A man who wrote a treatise on 'The Methods of Acoustics' and confined himself to an examination of the various opinions as to the nature of sound held by persons with 'a good ear,' and refused all inquiry into its physical properties, and all aid from any sense except that of hearing only, as foreign to his subject and of no practical import, might compose a very instructive and valuable work, but would hardly be thought to have exhausted the possibilities of a Science of Sound. Yet he would be clearly more justified by at least the etymological meaning of words in saying that Acoustics has to do with the sense of hearing only, than Mr. Sidgwick has in saying that Ethics has to do only with the Moral Faculty. Mr. Sidgwick says (p. vi.) that "the investigation of the historical antecedents of this cognition, and of its relation to other elements of the mind, no more properly belongs to Ethics than the corresponding questions as to the cognition of Space belong to Geometry". But in the first place, Geometry does not assume a Spatial Faculty and proceed simply to interrogate that and chronicle the results; it measures one sense against another and so arrives at what we call 'objective' or what is in fact *consistent* truth. And secondly, if Geometry assumes the fundamental properties of space as axioms or postulates, that is because there is no dispute about them; they are indisputably or at least undisputedly valid, and that is sufficient. But in Ethics it is as to the axioms that the great dispute arises, their application being scientifically of minor importance. And to say that the latter only is the proper province of Ethics, is clearly opposed to the ordinary use of the word, and as clearly opposed to Mr. Sidgwick's understanding of it, seeing that he defines it as "the study of what ought to be done" (p. 4) and that his whole book is a consideration of the relative value of first principles and not only of their application to practice. But Mr.

Sidgwick may say: 'I do not object to your discussing principles as much as you like, so long as you keep to the Moral Faculty, but if you go behind that you get out of Ethics'. To this I answer: In the first place, I doubt the validity of your Moral Faculty, and in order to determine that I must compare it with my other faculties. No doubt, as you say (p. 4) "if we were only agreed as to what we ought to do, the question 'How we come to know it' would be one of quite subordinate interest"; but we are not agreed, and the question therefore becomes vital. But in the second place, suppose this Moral Faculty to be valid, why should Ethics be confined to it alone, any more than Acoustics is confined to the faculty of hearing? There can be no science which is confined to one sense, because there can thus be no objectivity. From hearing alone how can we know that sound means the same, that is, stands in the same relation, to all men? Similarly from the Moral Faculty *alone* how can you distinguish "between what men think to be their duty and what really is such"? If the Moral Faculty be ultimate, what *is* a man's duty is what the Moral Faculty says, *i.e.*, to each man is what *he thinks* his duty. So we get to the old sophistic doctrine of Individualism, which is plainly exclusive not only of a science of Ethics but of all ethical reasoning. If on the contrary it be assumed as it is by Mr. Sidgwick (p. 6), that there is an objective good, and that this can be known, interrogation of the Moral Faculty can clearly not yield it, and therefore the insufficiency of the Introspective Method is assumed in all moral reasoning. To say that men know 'objective' good, but can give no reason for it or explanation of it, is really to say that good *is* in the knowledge of it, or in other words is subjective only.

I may here make a remark, the importance of which will be seen hereafter, that there may be an objective good which is still relative to the individual, if it bear the same relation to all individuals: for instance, it may be pleasure, which though relative to the organism is in a universal relation, and therefore satisfies the conditions of Science. Mr. Sidgwick is not accurate here. He says (p. 6): "If it be maintained that two men may act in two different ways under circumstances precisely similar, and yet neither be wrong because each thinks himself right: then the common notion of morality must be rejected as a chimera. That there is in any given circumstances some one thing which ought to be done and that this can be known, is a fundamental assumption." Now if under 'circum-

stances' he includes *internal* circumstances such as character and belief, his hypothesis is self-contradictory, because different beliefs as to what is right are different circumstances: if not, the conclusion is false; for common morality says that a man ought to act not only according to his beliefs but according* to the whole of his nature, and that what is right for one man may be wrong for another. The only fundamental assumption either necessary for a Science of Ethics or warranted by common notions is that morality conforms to the general law of uniformity, *i.e.*, that in the same circumstances, external and internal, the same thing is morally good: "ὁμοίων γὰρ ὄντων καὶ πρὸς ἀλλήλα τὸν αὐτὸν τρόπον ἐχόντων τοῦ τε ποιητικοῦ καὶ τοῦ παθητικοῦ, τὰντὸ πέφυκε γίνεσθαι". If this be so, then in any given circumstances "there is some one thing which ought to be done"; one, not in the sense that it is the same for each man, but that it has the same *relation* to each man, and therefore is capable of being known in the case of each man by all men.

But there is another reason why Mr. Sidgwick objects to going outside the moral faculty and explaining its derivation, namely, that "this would require us to prefer the coarsest and lowest of our pleasures to those that are more elevated and refined: which no one would maintain to be reasonable" (p. 42). And again (p. 186) "Why should our earliest beliefs and perceptions be more trustworthy than our latest, supposing the two to differ? The truths of the higher mathematics are among our most secure intellectual possessions, yet the power of apprehending these is rarely developed until the mind has reached maturity." Now, inasmuch as Mr. Sidgwick has defined 'Reason' as the faculty which prescribes moral rules, it is a clear fallacy to argue in favour of these rules that they are more 'reasonable' than others. But apart from this, Mr. Sidgwick should not forget that a thing may be *φύσει πρότερον*, but *ὑστερον ἡμῖν*. He would surely not argue against the Cosmogony of Laplace, that it is 'unreasonable' and retrogressive, because it goes back to the 'mean and beggarly elements' of nature. Surely this is the very law and order of knowledge, to return on nature's tracks, so that the farther back it can get the more perfect [it is]; and the truths of Mathematics are secure for this very reason that they go back the farthest of all. This is just what we wish to do with the Moral Faculty, to carry it farther back into its elements and thus rest it on a secure foundation. No one says that it is 'unreal' or 'vanishes' because it is found to be compound; on the contrary its existence

is more real because more known. No one wishes to substitute the elemental pleasures for the compound, the earliest beliefs for the latest, but to know or render self-conscious the evolution of one from the other, and thus to understand our present nature. A belief cannot be more valid than its data, and therefore if we discover the origin of our present beliefs we shall have at any rate a maximum measure of their validity.

In an article in *Mind* No. I., Mr. Sidgwick seems to have intended to collect more systematically than he has done in his book his reasons for excluding the history of the Moral Faculty from the province of Ethics. He there repeats the arguments which I have already noticed, with others which I may briefly summarise as follows. 'True it is that Evolution is progress, and that Morality aims at progress; but how do you know that the two kinds of progress are identical? How do you connect 'is' with 'ought to be,' 'being' with 'well-being'?' To answer this thoroughly would be to expound the Physical System of Ethics, which I have tried to do elsewhere, but which it is not now my business to attempt: suffice it for the present purpose to give the answer which Mr. Sidgwick himself suggests, that the connecting link is 'happiness' or 'pleasure'. 'But if this be so,' says Mr. Sidgwick, 'it is easier to aim at this directly than through development. No two even of your experts are agreed as to where the latter is going, so that it is a very useless mark to aim at.' To this I answer: At any rate it takes nothing away; you have the old mark of pleasure left, and you are no worse off than before; besides, if it is true, I do not care to ask whether it is useful or not. But I answer chiefly that development is not the mark which the scientific system of Ethics sets up. In showing you the development of the organised search for pleasure it does not bid you aim at *development* as such, but shows you *why* you ought to aim at *pleasure*, by proving that you do so aim and that 'ought to' is compounded out of 'is'. 'But if you mean,' says Mr. Sidgwick, 'that evolution reconciles the Instinctive and Utilitarian Morality, it can only do so on a broad general ground, and inasmuch as their mutual agreement in the main is self-evident, to show the reason of it is ethically superfluous whatever historical interest it may have.' To this I answer as before that nothing is scientifically 'superfluous' that is true; and that the whole interest of physical science is in this sense 'historical,' for its aim is a conscious retracing of the unconscious evolution of the universe. But

to give a less general answer: Would Mr. Sidgwick say that the nebular hypothesis, supposing it to be true, is 'astronomically superfluous,' or that the laws of the formation of clouds have only an 'historical interest' to Meteorology? Or, to take another instance, would a knowledge of the creation of mankind by God have no bearing on its relations to him when once created? And has legal history no jural value?

In another paper, in *Mind* No. V., Mr. Sidgwick appears as the champion of Hedonism against a supposed assault from the side of Physical Science, but his arguments go only to establish against a mere external standard the necessity of a Hedonistic criterion, and do not at all effect my position that Science *proves* Hedonism, but proves it in the Egoistic form.

Finally, I would remark that, supposing Mr. Sidgwick's objections well founded, as I contend they are not, they furnish no answer to the proposition which I am here concerned to establish, *viz.*, that the Physical or Scientific proof of Egoistic Hedonism is nowhere examined, much less disproved, by Mr. Sidgwick: for they are all not arguments against it but reasons for its non-examination. This fact is not only a sufficient provisional defence of Egoism, but marks a defect in the plan of Mr. Sidgwick's book, if while professing to examine scientific methods of Ethics he really excludes the only method which is scientific at all. To talk of a 'science' which "lies outside of all investigation of the actual" (p. 2) may be called a mere 'verbal' error, but only in the sense that all misstatements, being made in words, are verbal mistakes. The object of true or what Mr. Sidgwick calls "speculative" science is by comparing the data of different senses and so correcting their deficiencies to arrive at 'objective' truth; and just as Physical Optics or Acoustics takes light or sound and resolves them into the simpler elements of vibration, so Physical Ethics resolves Good into its constituent elements. It explains the Moral Faculty and its judgments of 'right' and 'good' as the physical result of Evolution, which objectively is perfection, subjectively is pleasure-attaining, and self-consciously is pleasure-seeking; and thus it connects the sphere of morality with the physical universe, gives a new meaning to the ethical dogma 'Follow nature,'* and constitutes a true Science of Ethics. Of this

* At p. 356, Mr. Sidgwick says that this maxim involves a vicious circle. How so? Even to the Stoics it meant 'Consciously imitate the

'Method of Ethics' Mr. Sidgwick gives no account: he hardly even says of it that it does not exist.

II. I said that Mr. Sidgwick's book should be called 'The Introspective Method of Ethics': I had almost said 'Intuitionist'. For it is not even to the whole facts of our inner consciousness but to the single consciousness of Duty that his method is chiefly directed; not to what actually are our motives, but to what we think they ought to be. The larger Introspective Method he does indeed hint at in a single short chapter (Book I., ch. iv.) but only to put it aside; and the remainder of the book is devoted to 'Reason'. His position in that chapter I take to be this: Admitting that if pleasure could be proved to be the universal motive this would be binding on Reason, necessity being evidently comprehensive of duty, he argues that such proof is imperfect, and the mere generality of motive which it establishes is not sufficient to displace or subordinate the motive which he assumes, *viz.*, the "desire to do what Reason dictates". To arrive at this position he has to refute what I have called the Introspective proof of Hedonism, *viz.*, that self-examination shows us that pleasures and pains are as a matter of fact the only motives to voluntary action, and act in proportion to their intensity. Let us examine his arguments. The first (p. 31) is as follows: "It is a matter of common experience that the resultant or prevailing desire in men is often directed towards what (even in the moment of yielding to the desire) they think likely to cause them more pain than pleasure on the whole. 'Video meliora proboque, Deteriora sequor.'" In other words Action does not always follow Knowledge. Of course not; but the doctrine does not require that it should, for it says, not that we follow what *is* our greatest possible pleasure or what we know or 'think' to be so, but what at the moment of action is most desired. In fact, the only practical measure of pleasures as motives at any moment, is in our-

unconscious striving of nature'; to us it means 'Be a self-conscious agent in the evolution of the universe'. In another place (p. 63) he seems to think that 'Follow nature' means 'Go in the *opposite* direction to nature,' 'Undevelop yourself'. Conformity to nature means conformity to its dynamical laws of Evolution, and to its statical laws of Physics. The former involves action, the latter knowledge; there is no real ambiguity in either precept. I may notice that the Physical System of Ethics reconciles Stoicism and Epicureanism by showing them to be the inner and outer expressions of the same law; the Stoic giving the Physical element, the Epicurean the Ethical.

selves the resultant desire, in others the resultant action. But it may be objected that to say that 'the pleasure which under any given circumstance is the greatest moves,' and when asked for a measure to say 'the pleasure which moves is under those circumstances the greatest,'—is to argue in a circle. It is no more a circle than to measure weights by their effect on the scales, or temperatures by the position of the mercury in a thermometer. The argument is at bottom this: I know pleasure to be a motive, and I know no other; I reasonably assume (having no evidence to the contrary) that motives follow laws analogous to those of other forces, or, in other words, the law of causation (this is what Mr. Sidgwick really asserts under the 'objectivity' of good): therefore, just as when two forces acting on a body in opposite directions result in movement in one of these directions, we say that *under those conditions* the conquering force was the greatest, so, when desire or action follows one motive rather than its opposite, we define the motive force of the first *under those conditions* to be greater than that of the latter. In each of these cases the absolute relation (if I may use such an expression) between the forces or motives may be very different from their relation under the given conditions: for in order to measure their absolute values the special conditions must be eliminated. The 'condition' which is most important is that of position: in the case of mechanical forces, position in space; in the case of motives, position in time.* When I raise my hand, I know that my muscular force is not absolutely greater than the earth's attraction but only in that relative position. Similarly when I act to secure a 'nearer good,' I may know quite well that it is 'less valuable' according to an absolute standard. For the idea of a distant pleasure is far weaker than that of an immediate one, but in theory this 'discount' is not considered, for theory ideally simplifies by eliminating the element of time altogether, just as Algebra eliminates space from Geometry. What is best in theory is what would have been best in the end, but what moves is the resultant of the projections of pleasures on the plane of the present. Action

* We may perhaps conjecture that, as Time is extension in one dimension only, the law of motive force corresponding to the law of gravitation in space will be found to involve a function of the simple inverse of the distance in time of the origin of the force instead of the inverse square: probably also a constant determined in the case of each individual by a 'personal equation'.

looks at life as we look at a landscape, knowledge maps it out to scale as on a chart. This divergence is gradually remedied by habitually acting on principle, and so making allowance for distance *automatically*, as we do in the eye: but this takes time, "δεῖ γὰρ συμφῶναι, τούτῳ δε χρόνον δεῖ," and in human beings is at present very imperfect. To suppose that action could exactly follow theoretic knowledge is to suppose a being in whom ideas should be equally vivid however distant the anticipations, in other words, should be equivalent to sensations; to whom therefore there should be no distinction of present and future, fact and knowledge, object and subject. But this is clearly not the case with man, so that to him knowledge which compares between ideas only, and ideas at equal distances, is necessarily at variance with action, which has to do with both ideas and sensations, and where perspective is everything.

But it may be answered that it is possible to act not only against *theoretical* knowledge, which is what Mr. Sidgwick seems to mean (*cf.* note to p. 112) but against *practical* knowledge, *i.e.*, not only against experience that certain actions *bring the most pleasure*, but even against experience that they are the *most pleasant at the time*. This is explained by another 'condition' of action which I have incidentally mentioned above, but which has a wider operation than what I may call 'The Temporal law of Motive,' *viz.*, imperfection of machinery. If a man acted up to his knowledge, whatever that might be, he would be *quà practice, i.e.*, as a practical machine, perfect. But as a matter of fact not only is knowledge expressed imperfectly, but not unfrequently some knowledge does not emerge in action at all, forms no constituent of the resulting act. A new line of communication cannot enter into competition with one well used, for the tissues acquire 'habits' which take long to modify. In other words, habit controls the practical effect of knowledge. A man may either choose the wrong rule, the lower instead of the higher, or (what comes to the same thing) he may not perceive that the particular circumstance comes under its proper rule; or, as Aristotle says, the practical syllogism, which is the expression of knowledge in action, may be vitiated either by choosing the wrong major premiss or by the imperfect apprehension of the minor. In such cases therefore the *effective* knowledge is what Plato calls in the *Protagoras* "a kind of ignorance," *i.e.*, as compared with the higher knowledge which the man in a way has and has not: it is a less

complete calculation of pleasure, a lower organisation of motive. But the difference is only in the completeness of the calculation, the nature of it is the same ; and the fact of such difference means only that the machine is not perfect.

These considerations seem to me to dispose of Mr. Sidgwick's objection that action does not follow knowledge, whether by knowledge be meant ideal comparison of pleasures or belief as to the actual pleasantness of particular actions ; and to show that, though desire may not be directed to the greatest pleasure within our reach or even to what we 'think' such, this does not involve (as Mr. Sidgwick thinks it does) the abandonment of the strict proportionality between pleasure and desire, any more than the fact that two equal weights at opposite ends of a stiffly working lever with unequal arms do not balance one another, disproves the strict proportionality between weight and active force. But the Intropective proof as I have stated it, involves the fact that we have no other motive than pleasure. Mr. Mill thinks this is so obvious as to be beyond dispute, but Mr. Sidgwick argues that this is due to a confusion between pleasure as "signifying the mere fact of preference" and pleasure as an "agreeable sensation"—the former being identical with motive and the latter being the *ἡδονή* of Hedonism. Now it is curious that, when Mr. Sidgwick comes later on (p. 114) to discuss Hedonism and give "a more precise notion of pleasure," he says that "it seems obvious to define it as the kind of feeling which pleases us, which we like or prefer," and eventually concludes that "we must define pleasure, if we are to estimate it exactly, not as the kind of feeling which we actually seek and pursue, but as that which we judge to be preferable".* Therefore the distinction which he makes seems to be between what is actually preferred and what is judged to be preferable, and the argument is that the two do not agree, which resolves itself into that already considered, that practice is often at variance with knowledge. Apart from this argument, it is Mr. Sidgwick's own definition of the 'pleasure' of Hedonism that it is "the kind of feeling which we prefer," or, even more definitely, "which prompts us to actions tending to produce or sustain it": so that, even if our refutation of this argument is invalid, the only change which he would make in the 'tautological assertion' is that instead of 'we desire a thing in proportion as it

* Cf. p. 372, where he defines pleasure as "Preferable or Desirable Feeling of whatever kind".

appears pleasant,' he would say 'we *ought* to desire a thing in proportion as we know it to be pleasant': he only prefers the Intuitive proof to the Introspective.

Mr. Sidgwick's remaining arguments are all intended to show that our active impulses are not always "consciously directed towards the attainment of agreeable sensations as their end". As this is not the doctrine of Physical Hedonism, I shall pass over these arguments shortly. Nobody denies that there are 'extra-regarding impulses' in this sense that desire of an end may become desire of means, so that it may seem to aim at means for their own sake. This is the case with appetites, as when a man takes a walk to 'get an appetite,' or pursuits such as fox-hunting; and it may often be true that a man is most likely to attain the end if he aim only at the means and forget the end. The extent to which this losing of end in means may be carried is illustrated in Benevolence, which "even though it may owe its origin to a purely egoistic impulse, is still essentially a desire to do good to others for their sake, and not for our own": in other words, I may find pleasure in doing good to others for their sake, and not for my own. We might go even further and say: I may cut my finger because it gives me pleasure to give myself pain. All this is part of Hedonism, which asserts that original impulses were all directed towards pleasure, and that any impulses otherwise directed are derived from these by 'association of ideas'. But Mr. Sidgwick says (p. 41) that observation is against this, "as preponderant objectivity seems characteristic of the earlier stages of our consciousness, and the subjective attitude does not become habitual till later in life". I answer that the earliest stage of our consciousness is before the separation of object and subject, and that the earliest motive and that which Hedonism asserts to be fundamental is a 'pleasure,' not either a 'pleasant object' or a 'pleased subject'. The first object of desire, a pleasant state, becomes afterwards thought of as a union of subject and object, and the desire may be transferred to either factor by association. When we reflect, we say, '*I* desire an *apple*': but the desire is for the union of object and subject, that the apple should become I. Hedonism would be true though the ideas of object and subject did not exist, and though no one had ever formed the idea of 'self' at all.

Mr. Sidgwick concludes with the argument that at any rate

"all men do not *now* desire pleasure, but rather other things". I answer: That is exactly what you have to prove, and what is *not* proved by showing that means may be substituted for ends. For this does not make men desire "other things" than pleasure, but only makes them desire one pleasure instead of another, or (as it may be put otherwise) call an old pleasure by a new name.

In a subsequent chapter (at p. 115) Mr. Sidgwick asks the following question: How is non-hedonistic preference (which is commonly thought to be of frequent occurrence) possible unless there is something preferable (*i.e.*, which *can* be preferred) besides pleasure, and if there is some such thing, what is it? The answer comes to this, that it must lie in the circumstances under which the state of consciousness arises, or the objective relations of the sentient individual. "For," he says, "if we separate in thought any state of consciousness from all its objective circumstances and conditions (and also from all its effects on the consciousness of the same individual or of others) and contemplate it merely as the transient feeling of a single subject; it seems impossible to find in it any other preferable quality than that which we call its pleasantness, as to which the judgment of the sentient individual must be taken as finally valid." This seems to me practically to yield the point at issue, if we remember that to the sentient individual the objective circumstances and conditions and also the effects of one of his conscious states are only modifications of that or some other of his conscious states, so that to him the only thing which is preferable, *i.e.*, which he can prefer, is a pleasant state, or that which produces a pleasant state. Consequences come in (and this is the explanation of preferring a 'higher' or more 'refined' to an immediately greater pleasure); but to each individual it is the consequences to himself alone, and in judging of them pleasure is the only ground of preference. That this is true Mr. Sidgwick seems really to admit: for he says (p. 371): "If I have any intuition at all respecting the ultimate ends of action, it seems to me that I can see this: that these objective relations of the conscious subject, when distinguished in reflective analysis from the consciousness accompanying and resulting from them, are not ultimately and intrinsically desirable: any more than material or other objects are, when considered out of relation to conscious existence altogether". If then nothing but conscious states of the conscious subject is 'ultimately de-

sirable,' and the only 'preferable quality' in these is "that which we call pleasantness, as to which the judgment of the individual must be taken to be finally valid," this is *at least* Intuitive Egoism. I say *at least* because I am not sure whether Mr. Sidgwick here means by 'desirable' what he must have meant in the former passage, 'capable of being desired,' or rather, 'which ought to be desired'. If he means the latter, I go on to say that conscious states alone are rationally desirable, for this reason, that nothing else is or can be actually desired, seeing that a thing is *to us* its relations to us, or in other words, the states of consciousness which 'it produces' in us; so that any existence it may have in itself is at least indifferent to us, and incapable of exciting desire or preference. If this be true, the Introspective proof of Egoistic Hedonism is complete.

III. Having omitted the Physical and negated the Introspective method, Mr. Sidgwick proceeds at once to the Intuitive. "To ascertain what Reason dictates" is, he says, "the aim of all ethical discussion". Of course it dictates all kinds of things; but on the whole Mr. Sidgwick gathers that Rational ends (for it is ends, not methods, which he uses as divisions) "are limited in number" and "seem to be" Perfection and Happiness, either individual or universal, and Rightness or Goodness for its own sake. These ends or methods he proceeds to consider *seriatim*. First he deals with Egoistic Hedonism. As to its fundamental principle he says that there seems to be more general agreement among reflective persons as to its reasonableness than for any other, such reasonableness being admitted by Utilitarian and Intuitionist alike: and that "the *onus probandi* lies with those who maintain that disinterested conduct as such is reasonable" (p. 108). Then follows an examination of its different methods of application, or of what Plato calls the *μετρητικὴ τέχνη*, such as the empirical comparison of pleasures, common sense judgments, notions of duty, divine law, natural impulses, self-development. All of these are found to lead back to the first, and that seems unworkable. These objections as to impracticability do not seem, however, to be thought much of by Mr. Sidgwick, as he eventually adopts a system to which they apply with far greater force. At any rate they do not touch the *truth* of the principle, with which we are here concerned; nor, so far as I can see, its 'reasonableness' in the sense in which Mr. Sidgwick uses the word Reason, *viz.*,

as "the faculty of apprehending universal truth". Egoism is made to seem unreasonable only by a confusion with the other sense of 'reason,' as *reasoning*, which seeks means to an end. For of course in that sense Egoism would be unreasonable if there were no means to it. But Mr. Sidgwick's Reason seems so called on this very account, because it makes affirmations for which no reason can be given. The result is that Reason says that Egoism is *prima facie* proved. If Mr. Sidgwick, notwithstanding, feels "aversion" to it, and regards it as "ignoble" and "despicable," he should remember that there is at least nothing noble in an unreasoning aversion.

Next we proceed to Intuitionism, which takes three forms according as it is held to give particular judgments, general axioms, or a philosophic basis. The last, though nominally a sub-class, seems to include all 'methods of Ethics' recognised by Mr. Sidgwick not included in the two former: so that when the two former are disposed of as not capable of supplying measures sufficiently precise to be elevated into scientific axioms, the chapter on 'Philosophical Intuitionism' is really an inquiry whether our Moral Faculty can supply any ethical axioms (besides that of Egoism) which have at once scientific precision and positive content. Mr. Sidgwick believes that it can supply two such, and that one of these involves "the suppression of Egoism". He takes them from Clarke, and calls them respectively the Rule of Equity and the Rule of Benevolence.

The first is as follows: "Whatever I judge reasonable or unreasonable that another should do for me, that by the same judgment I declare reasonable or unreasonable that I should *in the like case* do for him" (p. 358). This is the principle of the "objectivity" (as Mr. Sidgwick calls it) of rightness. I have already tried to show that it is either an assertion that morality follows the physical law of uniformity (*i.e.*, that mere difference of individuality in moral agents, as in atoms, does not affect the result, which is precisely *similar* under all *similar* conditions) in which sense I gladly accept it as a testimony from consciousness to the possibility of a Physical Science of Ethics; or if "the like case" does not include the like internal natures of agent and recipient, that it is not only no axiom but plainly repugnant to common sense. Mr. Sidgwick, if I understand him rightly,* takes it in the

* In a note to p. 183, Mr. Sidgwick says that "difference of circumstances must be taken to include difference of nature and character—in

latter sense, and yet holds it an axiom. Let me put to him an illustration. He says that it is a duty to seek one's own happiness (p. 304). But to determine what is a man's happiness, you have to look at his character and disposition, just as a meal fit for Milo is too large for an ordinary man. How, then, can duty be independent of the character of the agent? Or to take the converse, on what principle is it allowable (as Mr. Sidgwick says it is) to tell a lie to a lunatic?

The second rule, which as the supposed suppressor of Egoism I approach with more awe, is stated by Clarke as follows (p. 359): "If there be a natural and necessary difference between Good and Evil; and that which is Good is fit and reasonable, and that which is Evil is unreasonable, to be done: and that which is the Greatest Good is always the most fit and reasonable to be chosen: then as the Goodness of God extends itself universally over all His works throughout the whole creation, by doing always what is absolutely best in the whole: so every rational creature ought, in its sphere and station, according to its respective powers and faculties, to do all the Good it can to its fellow-creatures: to which end, universal Love and Benevolence is plainly the most certain, direct, and effectual means." The premisses here seem three: (1) It is reasonable to do the greatest good; (2) There is a God, and His goodness is the greatest; (3) The goodness of God can be known apart from ours, and comprises Benevolence to all His works. The second and third would hardly now-a-days be accepted as self-evident truths. Even if modified as far as possible to suit modern 'common sense,' they would at least involve the very controverted hypothesis of a moral government of the universe on optimist principles. But suppose them granted—what follows? Clearly that 'every rational creature' ought to do good not 'to its fellow-creature,' but 'to all its works'; in other words, *to itself*. If God's goodness is the ideal, and consists in doing good to 'His works,' *i.e.*, to Himself, how can a man possibly imitate this ideal

short, all differences beyond the mere individuality of different individuals". If this be his theory, I rejoice; but I cannot reconcile it with what he says elsewhere, or even on that same page when he contrasts ethical judgments with judgments as to sensations of taste as being really instead of only apparently 'objective'. As I have shown, Mr. Sidgwick holds that two persons cannot differ and both be 'objectively right' (*cf.* pp. 6, 190 n., 364).

by doing good *to others*? Mr. Sidgwick says he thinks the reasoning of Clarke "substantially sound"; to me, I confess, it appears a paralogism of the grossest kind.

However, Mr. Sidgwick admits that "to exhibit it as clear and cogent, considerable modification in form is needed". This is the form he gives (p. 360): "We are supposed to judge that there is something intrinsically desirable—some result which it would be reasonable for each individual to seek for himself, if he considered himself alone. Let us call this the individual's Good or Welfare: then what Clarke urges is that the good of any one individual cannot be *more* intrinsically desirable, *because it is his*, than the Equal Good of any other individual. So that our notion of Ultimate Good, at the realisation of which it is evidently reasonable to aim, must include the Good of *every* one on the same ground that it includes that of *any* one. This seems to be as much a self-evident truth as the principle of Equity." Perhaps so; to me also the two principles seem pretty equal in that respect. The premisses seem again three in number: (1) I reasonably desire my own good or welfare; (2) What is reasonable under any given circumstances is right under all precisely similar circumstances; and (3) "The fact that I am I" (as Mr. Sidgwick expresses it) is not a material circumstance. I admit these premisses. What then follows? Two inferences seem logically deducible. From (1) and (2) it follows that 'it is reasonable for me to desire all welfare which stands in precisely similar circumstances to my own'. One of these is that it is 'my own,' but this by (3) is unimportant. But another is that it is actually desired by me. Hence we conclude that 'it is reasonable for me to desire all welfare, which I desire equally with my own'. This is evidently not what we seek. Next let us combine (1) and (3): it follows that 'all men reasonably desire their own welfare'. For surely the result of universalising the maxim, 'I seek my own good,' is 'All men seek their own good,' not 'I seek all men's good'. If so, how does Mr. Sidgwick elicit the latter conclusion?

Mr. Sidgwick repeats the argument at p. 365* in the following condensed form: "The fact 'that I am I' cannot make *my* happi-

* The argument is substantially repeated in the same form in other places (e.g. at p. 367). But I do not find any statement of it containing any new element.

ness intrinsically more desirable, more fit to be accepted by my reason as the standard of right and wrong in conduct, than the happiness of any other person". It is certainly not more fit to be accepted as the standard of right and wrong in *my* conduct, than the happiness of any other person *in his*. But to say that happiness is "the standard of right and wrong in conduct" means that A's happiness is the standard of A's conduct, though of course the fact that A is A does not matter in the sense that B would not be an equally good example: and in the alternative expression of the premiss, which considers desire or desirability, its distributive nature is still more apparent.

This seems to me so evident, that I long thought it impossible for so clear-headed a writer as Mr. Sidgwick to have fallen into so obvious a fallacy, and I have read his various statements of this argument through many times in order to find some more substantial ground for his conclusions, but I confess without success: nor indeed can I imagine what other premiss he can supply, while I am clear that from the premisses I have stated no such conclusion as "the suppression of Egoism" can be evolved. I think the source of Mr. Sidgwick's error is traceable in the words "intrinsically desirable".* These words seem to have no meaning; desire must be felt by somebody, either the individual whose good is in question, or some other person. On the first alternative the premiss is that a man's own good is 'intrinsically desirable' to himself, from which it is impossible by any mere logical artifice to show that one man's good is 'intrinsically desirable' to another; on the second alternative the premiss is that a man's good is desirable to other people, and this is the very question to be proved. Mr. Sidgwick seems to have first convinced himself that Good is

* I may compare his use of the word in another passage (p. 316) where he says that "truths may be intrinsically self-evident which are yet not commonly seen to be so". Of course all truths are 'self-evident' to omniscience, but this is clearly not Mr. Sidgwick's meaning. I cannot even guess what it is. It is at least 'self-evident' to *me* that a truth, if evident at all, must be so to *somebody*. This confusion of thought is still more apparent in a subsequent assertion (p. 320) that "it is implied in the very notion of Truth that it is intrinsically the same for all minds". Surely the word 'intrinsic,' if it mean anything, excludes relation, so that to talk of a thing being 'intrinsically' perceived, or evident, or desirable, is a contradiction in terms.

something 'objective' or 'universal,' and then to have argued that this must mean something independent of individuals altogether, whereas (as I have already tried to show) it may consist in a *universal relation* to individuals. The laws of nutrition of animals are clearly objective and universal, but surely Mr. Sidgwick would not argue that because my dinner is not 'intrinsically' more worthy of digestion than another's, therefore it is reasonable for me to digest all men's dinners, or even as much as I can of the dinners of as many men as possible. Yet I confess that "this seems to be as much a self-evident truth as the principle of Equity," or the principle of Benevolence.

That this was the source of Mr. Sidgwick's error seems confirmed by a recapitulation of the argument which he gives at p. 391, in which he says that it is effectual against the Egoist only if the latter put his proposition in the form that "his happiness is objectively desirable," and not if he put it in the form "that he ought to take his own happiness as his ultimate end". But why should the Egoist put it in that form? He would be very foolish to do so, for it is not what he means. His proposition is, 'Own happiness is desirable to each,' or, if you like, 'is *objectively* desirable,' and against this statement the Universalist is powerless, simply because it makes his paralogism evident. Let me take a parallel instance. If I say 'I see what my eyes show me,' no Universalist could argue from that to show me that I see, or ought to see, what all men's eyes see. But if I were foolish enough to say, 'What I see is objectively visible,' the Universalist might argue, 'What you see cannot be more objectively visible than what any other person sees, for the mere fact that you are you can have nothing to do with objective visibility,' and might conclude that I ought reasonably to see what all men saw. But when I put it, 'What each man sees is visible to him,' my Egoism is invulnerable.

I may remark in conclusion that even if the proof were admitted, it would be a deduction from Egoism, for Egoism is one of its data; and a conclusion can never be more valid than its premisses. At most the voice of 'Reason' would be divided, and we should have to seek counsel elsewhere.

The examination of Kant adds no fresh argument, and the conclusion of the whole matter is that the only axioms given *intuitively* by 'Common Sense' or 'Reason' are that Good is 'objective' and 'universal'. Now, since Reason has been defined as the faculty of

apprehending moral distinctions (p. 23) as "a faculty which takes cognisance of objective truth" (p. 27), and as "the faculty of apprehending universal truth" (p. 85), we could have told at once that Reason would affirm that "moral distinctions" were "objective" and "universal," for that is contained in the definition: the only question, then, would be as to the existence of a faculty as so defined, and that is "assumed" by Mr. Sidgwick with an express refusal to argue the point. The result, therefore, seems to be that on the assumption of such a faculty there is such a faculty. For myself, I am quite ready to admit its existence; and the conclusion to which I say it leads and to which I say that, assuming its existence, Mr. Sidgwick has proved that it leads, is the principle of Egoistic Hedonism, as the objective or universal law of morality. That he has seemed to reach another conclusion is due, not to any fault in his analysis of the moral dicta of Reason, which seems to me to be admirable, but to a slip of reasoning which need only be pointed out to be recognised. That Hedonism of some kind is the verdict of Reason as against other ends he shows clearly in Book III, ch. xiv.; he also shows that Egoism is the form of Hedonism which reason originally dictates, but that this must be universal. I quite agree; but I say, Universal Egoism is not Utilitarianism—and no logical jugglery will make one out of the other.

In his concluding chapter Mr. Sidgwick seems to give up his proof of Utilitarianism from Egoism, for he feels it necessary to seek for further sanctions of the principle of Utility than the "proof" by Reason. His conclusion is that we must "assume" a harmony of the two, because otherwise moral science is impossible, for reason is divided against itself. This harmony is "a hypothesis unverifiable by experiment," without which "The Cosmos of Duty is reduced to a Chaos, and the prolonged effort of the human intellect to form a perfect ideal of rational conduct is seen to have been fore-doomed to inevitable failure". This is a sad ending, that the only ground for believing that moral science exists is the waste of time which we have been making if it does not. I cannot refrain, therefore, in conclusion, from trying to comfort Mr. Sidgwick by the suggestion of a 'hypothesis' which accounts for what I admit to be proved by the analysis of the dicta of the Moral Faculty, *viz.*, the simultaneous presence in Reason of the Egoistic and Utilitarian principles, and reconciles them on a principle wider

than both. It is a suggestion in its rudiments as old as Plato, but which, like many other happy guesses of Greek genius, has received a new meaning from physical science.

The end of all action is pleasure of the actor, and an action is good or right in proportion as it intentionally attains the end. If the actor be an organism or polity of members, his acts have two relations, one internal, the other external. His morality, therefore, has two sides, which may be called respectively the Law of Health and the Law of Conduct; and these vary in relative importance according to the completeness of organisation to which the actor has reached, that is, according as Evolution is for the time being more engaged in perfecting him as a unit or connecting him with other units into a higher organism. As unit organisms are gradually organised into higher organisms the Law of Health of the higher organism and the Law of Conduct of the unit organisms are concurrently operative on the same unit organisms as codes for regulating their external relations; and though these codes serve different functions, and are regulated by different ends, they are fundamentally the same, because they are different products or branches of the same physical law. Now the unit organism which we are principally concerned with is the individual man, and the most important higher organism of which he is the unit is the state or society. The Law of Conduct of the unit is Ethics and its principle is Egoism, and the Law of Health of the higher organism is Jurisprudence and Sociology, or, in the classical sense of the word, Politics, and its principle is Utilitarianism, *i.e.*, not 'the greatest happiness of the greatest number' of units, but the happiness of the *whole*. Hence in the human reason, which is an echo of human experience, that is, of internal egoistic desires and of external family, social, and political influences, the two principles of Egoism and Utilitarianism *must* be mixed; and if we analyse the common sense of mankind we need not be surprised to find a deep-lying principle of Egoism which will not be reasoned with because it is the old essential nature of the man, and an apparently later growth of Utilitarian maxims which rest their claim on the general assent of mankind rather than on the inner nature of each individual man. This is just what we should expect, and just what Mr. Sidgwick has found.

But man is not individual and citizen alone. Human life as we live it, is a complex of relations. Besides his relation to nature

which constitutes him an individual and gives content to his simplest Egoism, he is a member of a family, a profession, a social circle, a race, a country, and finally of an ideal society within his breast, a 'kingdom of heaven' whose voice is his own best feelings, his inner prescience of coming evolution, and whose omniscience he cannot hope to elude, because it is his own knowledge of himself. Each of these organisms impresses its Law of Health upon his actions and conscience, and so are produced in him the conceptions of 'duty' to his family, his friends, his country, and his God. If we ask *how* each of these Laws of Health impresses itself upon his moral nature, in other words, what is the *motive* to all these different Utilitarianisms, the answer would be that inasmuch as the essence of morality is that the ἀρχή should be internal, they can affect him morally only through his nature, by becoming part of it. This they do by artfully modifying his motives, *i.e.*, either by altering the consequences of his actions (as by reward or punishment, praise or blame), or by altering his belief as to those consequences—in other words, the *Ethical* value of Utilitarianism of whatever kind can only be as a *method* of Egoism. Similarly we might say that the Political or Social value of Egoism is only as a material of Utilitarianism, just as the Ethical value of Health is as a material of Egoism. Further development of the Physical System would be here out of place, but I contend that it is a 'hypothesis' which not only, if true, explains the relation of Egoism and Utilitarianism, but is also 'verifiable by experience'. If it be verified, Ethical Science will stand on a firmer foundation than the sorrow we should feel if it were not true.*

* Since the foregoing paper was in print, I have seen Mr. F. H. Bradley's elaborate examination of *The Methods of Ethics*. His criticism and mine are curiously divergent; but there is at least one of his beliefs, which he mentions incidentally, in which we are agreed—namely, that the only consistent Hedonism is Egoistic. Even that, however, he would take as an argument *against Hedonism* (for I fear he would not waste much politeness over the mental or moral qualities of an Egoist); whereas I have ventured to consider it an argument *for Egoism*. The difference between Mr. Bradley and myself, though it looks enormous, is in reality curiously small. I quite agree that Virtue is the Realisation of the will; only I add, the will is Pleasure. This I fear he will consider an 'irreducible minimum'. However, even that is sometimes got over; and a question of fact, which I hold this to be, should never be irreducible.

II.

ETHICS AND POLITICS.*

IN MIND, No. VI., I stated that Utilitarianism, so far from being provable from Ethical data, is not an Ethical principle at all but a Political; the Law of Health of the higher organism or polity, and not the Law of Conduct of the unit members. My present object is to justify this statement a little more fully by considering the relationship of these two laws, and to suggest a practical test whereby to distinguish their respective spheres of operation.

First I must avoid a misconception. There is a branch of Law, unwritten and unenacted, of which the sanction is custom and public opinion of the class or society which adopts it, and which is best known as the Law of Honour and Fashion. It is in fact Rudimentary Law; and while some parts of it, being difficult to formulate or otherwise unsuitable for positive enactment, remain always rudimentary, other parts of it only await legislative, or (as in the case of English 'common law') judicial, recognition, to become integrated into the political structure. As an instance of a law so made, I may quote Mr. Spencer's explanation of the so-called 'Law of Exogamy' from a fashion of having foreign wives; as an instance of such law in the making I may name International Law; and for other illustrations I may refer to Sir H. Maine's *Village Communities*. This unwritten law or Law of Opinion was most unhappily termed by Austin 'Positive Morality'; and though he explained that name to mean merely certain "human laws" "without regard to their goodness or badness," the misnomer has produced much confusion; for when men hear of morality, they naturally think it must have something to do with moral goodness and badness. For the purposes of this paper I have only to state that this 'Positive Morality' is a branch not of Ethics but of Politics, part of the Art of Praising not of the Art of Acting. With this precaution I may proceed to the main subject.

Historically the unit necessarily precedes the organism, and Ethical facts therefore come before Political. Given tissue en-

* Reprinted from *Mind*, No. VIII. (Oct., 1877).

dowed with sensibility, that is, with the property of reaction under stimulus, and we have the raw material of Morality. For the only tissue which can continue to exist is that of which the reactions are such as to secure self-preservation, or in other words, the 'good' of the reagent. Next it follows that as, in the progress of evolution, tissues become at once differentiated and integrated into an organism, each retaining its proper reaction, the resultant action of the whole, partly by the ordinary laws of the composition of forces, and partly by the continued operation of the same law of Natural Selection (which is really nothing more than the identical proposition that those tissues or organisms live best whose properties are most conducive to life), is productive of the resultant 'good' of the organism. Meanwhile there is an inner or subjective side of this law of self-preservation, and this can only be described as the attainment of pleasurable consciousness; for pleasure is simply the conscious state which accompanies the due performance of vital function. Finally, Morality proper begins when not only is pleasure attained by action, but through habit the idea or feebler excitation of the pleasure reacts so as to produce the action; in other words, when pleasure is not only attained but aimed at. If an organism has reached this stage, so as to be capable of intentional action, it is a moral agent though alone in the universe.

Next let us see what happens when the spheres of action of two such agents overlap. Clearly the resultant action is, as before, and by the operation of the same laws, the resultant of the two individual actions; and the resultant 'end of action' is the resultant of the two individual ends, determined in proportion to their relative forces. Now where circumstances are similar, the resultant action will also be similar; and as certain circumstances often recur, the corresponding actions also recur and through habit become a custom. This as I said, is the rudiment of Law; and just as Morality proper begins when a spontaneous action is intentionally repeated by a personal consciousness, so Law or Politics proper begins with the conscious enforcement of custom by a central authority. Thus we see how, by the same law which makes the end of Morality the pleasure of the individual agent, the end of Policy, whether of Family, Tribe, or State, is the resultant pleasure of all whose action is represented.

I have thus very briefly sketched what I consider to have been the Order of Nature, but as this may be considered problema-

tical, I prefer to address myself rather to the Order of Knowledge, and to prove my theorem from the actual history of Ethical and Political speculation rather than from any hypothesis of prehistoric evolution. Now, the order of knowledge being a retracing of physical evolution, while Ethical facts preceded Political, Political Philosophy naturally preceded Ethical. When man began to reflect, or turn his thought backwards, social organisation was already considerably advanced: and his reflection naturally commenced from the point at which he stood. The latest products of evolution were accordingly the first objects of inquiry. Law and Politics were the earliest studies, and human life and duties seemed bounded by the conceptions of the Family, or Tribe, or State. These were the lowest units; the individual was not yet self-conscious. Thus we find that in all early societies the individual has no rights, only status; no duties except those implied by his relation to the tribe, or (in the more organised societies where some system of marriage has been evolved) to the family. If he sins he entails a curse upon his kin or tribe; if he requires punishment his wives and children suffer with him. They are his appurtenances; his individuality extends to them; and he is punished in them just as he is also responsible for them. The unit agent is in fact the family or tribe and, by whatever part of itself it does the act, the whole must be punished. So, too, acts which a higher morality rejects, are applauded if done for the public good: the severity of Manlius, the treachery of Jael, and the cruelty and duplicity of David are models of heroism. The Public Good, or Utility, is the standard of virtue; Ethics is not yet differentiated from Politics.

This absence of the idea of individual or personal morality is common to all early nations. Mr. Darwin (*Descent of Man*, Vol. I., p. 96) says, "Actions are regarded by savages, and were probably so regarded by primeval man, as good or bad, solely as they affect in an obvious manner the welfare of the tribe,—not that of the species, nor that of man as an individual member of the tribe". Nor is this idea of morality confined to savages: it was common to the most civilized nations of antiquity.

In Greece it is well known how political life absorbed all intellectual interest. A good man meant a good citizen (it was even doubtful whether a slave could have virtues at all); and the Greek view of moral education was summed up in the Pythagorean advice,

'Make your child a citizen in a good state'. To the Athenian or Spartan, individuality was a sign of political decay; Plato was careful to exclude it from his ideal republic. So too his *Republic*, a professed treatise on Morality, can explain the individual only on the analogy of the State, the less known by the better. And even when the molecular politics of Greece had been dissolved in a single all-absorbing state, the conception of man as a 'political animal,' deriving all his rights and duties from the state, was suspended rather than destroyed, and was ready to reappear on a fitting opportunity. The later Greek Ethics recognised indeed Individualism, but only within certain real or assumed limits; it never attained the conception of an individual *human being*. Its final word was still addressed to citizens, though of a city whose empire was the world: to the Stoic Antoninus 'Citizen of the World' still seemed a prouder title than 'Man'. Greek Ethics was never completely emancipated from Politics; Individualism reached the limits of the State, but not the limits of Humanity.

In early Rome, the lowest unit recognised was the Family represented by its head, who, like the Hindoo and Jewish father, had absolute power not only over the property but over the life and persons of his wife and children. But above the family was a higher status, that of Citizenship; and from this flowed all the individual's rights and wrongs. And even when conquest and the need of political assimilation brought in the later doctrines of 'Equity,' it was the Equality of citizens of different states implied by the adoption of the '*jus gentium*,' not the equality of individual men, which was at the foundation of the later Roman Law. The life of a citizen was indeed sacred, but the life of a barbarian was valued only as so much machine-power, and for the pleasure which it gave a Roman to see him die in the arena. It was not to Rome any more than to Greece that we owe the Individualism of modern life.

Among the Jews again in their early history, all interests and duties were centred in the Family and the Tribe. Both Religion and Morality were purely patriarchal. Jehovah was 'the God of their fathers,' jealous of strange gods, their tribe's representative and protector in the unseen world against the gods of other nations. And this external exclusiveness had its other side in internal solidarity: the unit was also an atom. Of individual rights or responsibility there is thus at first little trace: the sins of

the fathers are visited on the children ; the priest offers atonement for the people ; the whole human race is held to ' lie in sin ' because of a trivial disobedience by its first parent. Is a man to be rewarded ? " Behold, I have made thee a father of many nations : in thy seed shall all the families of the earth be blessed." Is a crime to be punished ? " Let the criminal perish with his wives and his little ones : let his children be desolate and beg their bread." Is a pledge of fidelity required ? A man offers his family as hostages. Is a neighbouring tribe hostile or its territory wanted ? " Slay both man and woman, infant and suckling, ox and sheep, camel and ass " ; and forget not their gods—" burn their graven images also with fire " ; " destroy their name from under heaven ".

But after a while, as in Greece and Rome, the old patriarchal feeling gradually gave place to a vague consciousness of individual responsibility—the usual rule came to be, " The father shall not be put to death for the children, nor the children for the father " (Deut. xxiv. 16) ; though still on exceptional occasions the old spirit returned and justified itself as the direct command of God. Gradually, as Morality gained more hold, these exceptional outbursts became less frequent, and even the prophets, who were always the mouthpieces of the old barbarous spirit against the new culture, began to say, " No man can deliver his brother, or make atonement unto God for him " ; " The soul that sinneth it shall die " ; " The righteousness of the righteous shall be upon him, and the wickedness of the wicked shall be upon him ".

In this conception of Individualism the first condition of a true morality was gained. But the conception was still deficient in two directions. In the first place it was wanting in thoroughness ; for though responsibility was personal, the standard was still external, and morality consisted in act not in motive, in a ritual of outward observances not in holiness of heart. In the second place its sphere was limited ; for it extended to the Jews alone. But at last, and it is this which distinguishes the Jews from all peoples as the first moralists, these further conceptions were also attained. So far other nations had reached, for individualism within the limits of the state had been ultimately recognised both in Greece and, under the empire, in Rome ; but the final step was reserved for that singular race of exceptional moral earnestness, whose earliest legend of man represented him as rebelling against authority in matters of morality, and selling his happiness for an ethical inquiry.

Of these final discoveries the former was first made by the last and noblest of the Jewish prophets, the latter by his greatest follower. Together they complete the basis of morality. The great message of Christ was on the one hand the worth and responsibility of the individual, on the other hand the inwardness of virtue. Of these the former was already, as we have seen, partially recognised ; but the latter was in flat contradiction to the dominant religious doctrines of the day. "Woe unto you, Scribes and Pharisees, hypocrites ; for ye are like unto whited sepulchres, which indeed appear beautiful outward, but are within full of dead men's bones and of all uncleanness." This was his message to the outward morality of action. Virtue is something more than obeying the letter of the law ; it is in the heart not in the act. The Sermon on the Mount was the Gospel of Inwardness.

Morality had become not only personal, but inward ; Individualism was recognised as determining not only responsibility, but also the standard of action. It was thus made *thorough*. The only thing remaining was to make it *universal*, by eliminating from the conception of the individual all elements of race and nationality. This final truth, though foreshadowed by the teaching and the life of Christ, was first securely established by the great Apostle of the Gentiles. It seems to me mere paradox to speak of St. Paul as the true founder of Christianity, and he himself would certainly have disclaimed such a title ; but there can be no doubt that to him is principally due the spread of Christianity beyond the bounds of Judæa, and the widening of Individualism to the limits of Humanity. Thus it was St. Paul who finally emancipated Ethics from Politics, and for the old state-morality depending on particular social and political conditions substituted human morality, which depends on no conditions but those which are common to the whole human race. Christianity as preached by St. Paul was therefore the Gospel of Human Morality. Its maxims were universal, and thus at once human and potentially scientific ; its standard was personal and inward, and therefore moral. The characteristic virtues of Christianity, forgiveness, repentance, modesty, humility, faith, hope, charity, are virtues of feeling, not of act ; its greatest products—chivalry, the emancipation of women, the suppression of slavery, of suicide, of infanticide, and of the grosser forms of impurity—have been expressions of the right and dignity of the individual man.

The Christian Gospel was thus the starting point of Ethics. Henceforth there were two prolegomena to all possible systems of Ethics: (1) that the principles must be universal; (2) that the standard must be individual, and the intention, not the act, must be the object of moral judgment. In other words, Ethics must be entirely separated from Politics, must be founded on Psychology, and must result in some form of Individualism or Egoism. This, I believe, will hereafter be recognised as the true glory of Christianity, when much that now more peculiarly bears that name will have become obsolete and forgotten. No doubt the coarser forms of the appeal to Egoism in the fables of Heaven and Hell have been justly stigmatised as degrading to the moral ideal, but the significant fact is that such an appeal should be made at all as the foundation of a moral system. Christianity, as it has been too commonly taught, has no doubt been a low form of Egoism; but it has at least clearly recognised Egoism as the sole principle of action. Its error has been in forgetting the Hedonistic Paradox (if it be a paradox), the knowledge of which is a condition of rational Egoism, that Pleasure like every other object of pursuit, cannot be attained directly but only through means; and that if a man is always thinking of the end, he is sure to think less of the means, and is thus likely to miss the object of his pursuit.

But although Morality was made self-conscious by Christianity, it was not at first systematised, much less explained. Moral Philosophy did not begin to exist till long after Moral Knowledge; not until Christendom had embraced the thinking world, and men began to reflect on the maxims they had learnt. Even after reflection had begun, men were for long content with mere authority, and sought accuracy only in a multiplication of rules; but at last the need was felt for a *basis* of authority, an ultimate principle to be the court of final appeal. In the search for such an explanation of moral phenomena there came first an *a priori* attempt, like that of the pre-Socratic schools, premature and imperfect because unsupported by evidence, to explain the Moral Cosmos by a conjectural Atomism, or resolve it into a single element. Then came a Socratic era of inquiry into the nature of men's actual beliefs. These being found to be discordant, and the Introspective method being thus shown to be productive of no higher authority than Custom, the necessity was seen for psychological criticism, and this having shown that moral judgments are of the same

nature as other judgments, Ethics became a portion of Ontology, affiliated to Psychology. Morality is of course still concerned with individuals, but it is seen that nothing can be known about the individual by self-interrogation; he and his morality must be studied through phenomena, and, like any other phenomena, from the outside and not from the inside. That there will be a Science of Ethics is a superfluous prediction; that it already exists I almost dare to assert.

Again, although I maintain that since the time of Christ the provinces of Ethics and Politics have been separated, I do not mean to say that this has been seen to be so, even by philosophers. On the contrary, the two have been greatly confused. Morality has been placed on a political basis and asserted to depend solely on man's relations to his fellows, and to be determined by utilitarian consequences just as if Christ had never preached; and on the other hand an ethical justification has been sought for the State in a supposed social compact,* to the destruction of all political stability, and moral or equitable rules have been allowed to flow from the 'King's conscience' into judicial decisions and so into law, to the perversion of all legal consistency. Indeed I believe that the two sciences have never been accurately distinguished, and to that I attribute much of the uncertainty which exists in each.

This confusion I believe to be mainly due to the following facts. In the first place, Political like Moral actions are done through individuals, and it requires powers of analysis beyond those generally used to separate the different capacities in which a man is called upon to act. Hence those principles are welcomed and adopted which seem to offer a guide to all actions alike; and the consequence is a sort of compromise between Ethics and Politics. Like Pascal's Jesuits, men "contentent le monde en permettant les actions et ils satisfont à l'Évangile en purifiant les intentions". Secondly, this is increased by the fact that the official exponents of morality are the paid servants of society. "You ought to do this," men are told, and while the duty has often reference to the good

* This is not only a fiction of political theorists but has been adopted in the ordinary legal text-books. For instance, Blackstone (book vi., ch. 1) appeals to it as the foundation of that part of the penal law which deals with *mala prohibita*.

of society rather than of the individual agent, it is enforced by an appeal to self-interest, multiplied indefinitely by the threats and promises of a future life. Thus moral sanctions are used to further social interests, and men are too idle to test the reality of the connexion between them. Public education and a state-religion are useful political engines to extend to secret acts the observance of the penal law; but they are so by the very fact that they tend to obscure the distinction between the principles of Ethics and Politics. Thirdly, the very existence of a Science of Ethics (and its existence is assumed by common sense) implies not only inwardness but knowableness, that is, certainty. Now at first sight these two conditions seem inconsistent. If Morality be inward or subjective, and Science be concerned only with objective facts, it seems that the two can be combined only by the covert withdrawal of one of them. If Ethics looks only at motive, and Science only at phenomenon, how can there be a Science of Ethics? Accordingly the great division between modern ethical systems has been between the non-Ethical and the non-Scientific. On the one hand there has been the Intuitionist school, which while plainly Ethical is as plainly exclusive of Science, shuddering at the least suggestion of 'materialism': on the other hand the Utilitarian, which while in a sense scientific, as professing to give a definite standard of measurement, is, I maintain, clearly non-Ethical, hiding itself in Politics to escape the difficulty of motives, and bartering its birthright for a table of statistics.

Is it then impossible to combine the inwardness of Ethics with the objectivity of Science? I believe that this is possible, but only in one way. I believe that the Physical System of Ethics is a true Science, and truly Ethical, for it rests on the physical law of motive. It is 'objective' because it formulates a universal relation between impressed and expressed force; the result in each case varying with the machine through which the force is passed, but depending on a constant law, so that if the particular values were known the result could in theory always be predicted. It is 'inward' because it places morality in the motive or intention, and not in the act.

It is another question to determine *which* of these two, Motive or Intention, is the ultimate object of moral judgments. If (as seems the correct definition) Intention be the act willed and the sum of its foreseen consequences regarded objec-

tively,* and Motive be the desire of or shrinking from each of those intended consequences, or, in other words, the intended consequences considered as pleasures and pains, and if Volition be the resultant motive issuing in act, or, as Hobbes says, "the last appetite in deliberating," then Intention is nothing but the sum of Volition and Motives regarded objectively, and the question is only between Motives and what I have called Volition. As to this, it would seem the more correct course to value the elements, and from them calculate the value of their resultant; but inasmuch as motives or consequences are good and bad only relatively to each other, and in due proportion, and as this due proportion is hard to determine except by consideration of the effects of the combination of different proportions, that is, of the nature of the resulting acts, it looks as if it might turn out the more practicable course to commence at the Volition and work back to the Motives. Still the consideration that the same Volition may result from different Motives, and have in each case a different moral value, according to the ends to which it is intended as a means, seems conclusive that its moral value depends on its constituent Motives, and that subtracted Motives do not balance one another so as to vanish in the calculation of the moral value of the resultant. We value an

* I use Intention as meaning the intended act and its consequences, desired or the reverse, *so far as foreseen*, not as an act which would have involved consequences beyond those intended. In the latter sense Intention and Motive are very different, and the Intention may be good though both Motive and Act are bad and *vice versâ*. 'Intention' in this sense (which is that in which it is used in the penal law), is not an internal standard at all, and its use implies the application of an external standard to an internal act. It is therefore a chimæra, a mixed offspring of Morality and Policy; produced, as I shall explain, by the fact that voluntary action is the material on which Policy has to work. But to *Ethics*, Intention covers only the consequences actually intended; and in this sense it is the sum of Motives. For I deny that a man can intend a consequence without taking it into account as a motive for or against the action, though of course the resultant motive respecting any consequence may be nil, so as to make it an object of indifference to the will, and thus to make the contemplation of it inoperative as an end either for pursuit or avoidance. But the fact that opposing ends or motives balance, does not make them absent from the calculation, and they are represented not only in the arithmetical sum or Intention, but in the geometrical resultant, Volition, just as faithfully as physical forces are represented in the Will of Nature, which is Physical Law.

action according to its farsightedness, that is, its extent and clearness of vision ; but the same Volition might have resulted from a narrower view, in which case it would clearly have been less moral.* From the direction of motion we cannot discover the acting forces, but if we know the active forces we can infer the resultant motion. Hence the forces are the ultimate factors of the problem ; and we may perhaps conclude that the morality of an act depends on the sum of its motives in their respective proportions, and is measured by the happiness to the agent which such motives acting in such respective proportions would normally produce in similar cases. This is, however, an irrelevant question : what here wants emphasis is the distinction between intended and actual result. The latter being independent of the agent altogether is no more moral than gravitation : where there is no Consciousness there is clearly no Morality.

It may perhaps appear that if Morality be founded on Evolution (which is the doctrine of the Physical System) it must contain many things besides motives, because Evolution proceeds in other ways, and good motives often retard it. To this I answer that Ethics is not the whole of Evolution, but that branch of it which is comprehended in the conscious action of individual men. An act or thing may no doubt in a sense be 'good' that is not the result of good motives ; but not *morally* good or *right*. In one sense gravitation or any other natural fact is 'good' ; but no one

* Mr. Sidgwick (*Methods of Ethics*, p. 179) quotes against this the common sense maxim that "we must not do a bad action from a good motive". I do not see how this touches the question. The maxim must mean by 'a bad action' either 'one which we know to be bad,' or 'one which is really bad whether we know it or not'. If the former, it only says that an act which we know will bring more harm than good cannot be good, however small the surplus as compared with the subtracted quantities ; if the latter, it is not a maxim of Ethics at all or warranted by common sense as such (for if I have a good motive and do not know that the action to which it is leading me is bad, clearly it is my duty to follow it), but a maxim of Penal Law or Policy. It may be a necessity of police-law to punish pernicious actions though the agent be ignorant of their pernicious nature, just as it may be *politic* for the state to reward useful acts (as for instance in the case of informers) however mean be the motives which prompt them. If a man will *pay* either for reward or punishment, politically he deserves it : morally his desert may be very different.

would contend that such facts are ethically or morally right. That seems to me to be the fallacy of a well-known argument of Natural Religion. It is no doubt true that 'whatever is, is good,' because the course of the universe is a course of evolution, which is what we consider 'good,' because it has produced us and tends on the whole to our happiness; but it is not true that 'whatever is, is *right*' (if by right is meant morally right), unless it be *assumed* that all natural facts are self-conscious to some mind which understands and follows the distinctions of Human Morality.

[Morality means the conscious following of nature: an unconscious virtue is a contradiction or a metaphor, and by such metaphors Science is greatly retarded. Ethics may clearly be founded on Physical Law without being co-extensive with it; and is, as I define it and as commonly understood, the Science of the conscious or voluntary action of men considered as individuals in a medium of external relations—or, as I have otherwise called it, the Law of Conduct of Individuals. Similarly by Politics I mean the Science of the *voluntary* action of individual States considered either in their relation to their component members (Domestic Politics or Jurisprudence) or in their external relation (which from its most important branch may be called International Politics). So that Politics is a wider term in respect of States than Ethics is of Individuals, comprising not only their Law of Conduct which corresponds to Ethics but their Law of Health also. In the present paper 'Politics' and 'Policy' refer to the latter branch, which while it deals with individual men deals with them not as units but as constituent members of the unit state.

But it may be said that if confessedly both instrument and material as well of Politics as of Ethics lie in the actions of individuals, and if Ethical and Political maxims are not practically kept separate either by philosophers or in ordinary life, is it worth while to separate them at all, and if so, how is it to be done? To the first question I answer that unless they are separated it is difficult to get any consistent view of either Ethics or Politics, and clearly impossible to place either of them on anything like a scientific basis. To the second question I answer that there is a very simple and infallible diagnosis whereby we may at once test whether a maxim has an Ethical or Political origin. It has been suggested by what I have already said, and may be called the 'Test of Inwardness'. I suppose that a maxim is propounded

dealing with the relations of a man to his fellows: then we know that this comes either from Ethics or Politics. To determine *which*, ask this question: Is it concerned with Acts or Motives?—(of course, I am speaking not of its grammatical expression, but of its inner meaning); if the former, the standard is external to the agent, or Political; if the latter, it is internal, or Ethical. For any motive or intention not expressed in act is politically indifferent, any part of the act not intended is ethically 'accidental'. The question of Ethics is 'Good or Bad?'; the question of Politics is 'Guilty or Not Guilty?' Let us examine this a little more closely.

Crime is defined by Blackstone as "an act in violation of a public law"; by Sir J. Stephen as "an act punished by law"; and by Professor Amos as "an act which the State, for purposes of its own, resolves absolutely to prevent". Certain acts are judged injurious to the community and the doer is punished, whatever his motive, in order that they may not be done. But these are clearly not the same as immoral acts, as is evident from the well-known distinction between *mala prohibita* and *mala in se*; acts morally indifferent or even good are often penal,* while acts of monstrous immorality are not illegal. Nor are 'crimes' classed for punishment in order of moral wickedness. It is the harmfulness of an offence not its immorality which measures the price which it is worth while to pay for immunity. For instance, Treason is always placed at the head, and Treason may sometimes be morally right; if unsuccessful, however, it is held to be rightly punished, although clearly its moral value cannot depend upon success. Other instances will readily occur: the following is taken from Stephen's *Commentaries* (vol. iv., p. 103):—"In the Island of Man this rule was formerly carried so far, that to take away an ox or an ass was there no felony, but a trespass; because of the difficulty in the little territory to conceal them or carry them off; but to steal a pig or a fowl (which is easily done) was a capital

* I do not mean that it may be sometimes our duty to break a bad law; but that a law may be good (*i.e.*, in *politics*) and yet punish acts which, at least without it, might be virtuous. The law against treason is a good law, though it may be in a bad State, and though rebellion may be a duty. Or take the prohibition against misprision of felony, which one can easily conceive it to be a man's duty to break, and which may still be a good law.

crime, and the offender punishable with death". No doubt there are certain ambiguous acts which vary in harmfulness according to what would have been their issue if completed; for instance, an assault may be either an attempt to murder or to rob; and in order to classify these inchoate acts, their meaning or 'intent' must be ascertained, an attempt to murder being clearly much more *dangerous* to the community than an attempt to rob, though it may not have done more actual harm. Hence it comes that in the penal law several classes of offences involve 'intent'.

But it may be urged that at least *our* criminal law goes further than that, for it makes guilty knowledge essential to a criminal act: "actus non facit reum nisi mens sit rea". Now I am clearly not bound to admit the policy of this rule because it is in our law: it came there not on philosophical grounds but partly from the old retributive notion of justice, and partly because the law has to be carried out by individual men who naturally import into it their rules of Morality and Religion, not having ever been instructed that the rules of Politics have any different foundation. How far this maxim may be in fact justifiable on true political principles seems to me a somewhat difficult question. On the one hand, it may be said that since it is on intention alone that punishment can operate, there can be no punishable offence without unlawful intention. This is no doubt valid as respects acts which no additional motive in the agent would have prevented, such as acts forcibly compelled or where the agent is of defective understanding; but as to acts done in ignorance or carelessness, the answer is that punishment is to prevent *future* unlawful acts, and if punishing unintentional acts would prevent the occurrence of similar unintentional acts in the future, and clearly it would do so to some extent by making men more careful, that is exactly as proper an object to aim at as preventing intentional acts: for the acts however done are in their direct results equally injurious to the community. I do not see how this can be disproved. The question then comes to be one of *expense* merely. Would not the price we should have to pay for the small additional security be too great? For clearly the same punishment would produce a much smaller result in preventing unintentional acts than in modifying intentions, seeing that it is more difficult to alter a character than to prevent a single act. To this must be added the danger of depriving the criminal law of the moral

sanction; for if morality and policy do not work together the practical weight of both is lessened.

But taking the maxim as it is, and as interpreted by English law, I would remark in the first place that it is a maxim only of *penal* law. Secondly, it is very far from meaning that even for penal purposes criminality is to be estimated according to moral wickedness, (for even *mens rea*, or *guilty* intention, by itself is not penal, much less an *immoral* intention); or that there can be no guilt *without* moral turpitude. All that it means is that a man is not to be punished unless he intended to do an unlawful act; punishment having for its object to prevent unlawful acts and operating upon intention. Nay it does not mean even this; for a man may be punished for acts which in no ordinary sense of the word he ever intended at all. Acts caused by heedlessness or negligence, which is the very absence of intention, are criminally punishable; and unforeseen consequences are held imputable on the ground that they were 'constructively' intended. For it is well settled law that if a man intend an unlawful act, but the result goes beyond his intention, he must take the consequences; if a thief fire at a fowl and kill the farmer, that is murder. Nor is ignorance of facts an excuse; if a man set fire to a cow-house, not knowing that a cow was in it, he may be convicted of 'maliciously burning' the cow. In some cases, actual *mistake* as to facts has been held immaterial; for instance, in a late case before the Court of Criminal Appeal composed of 16 judges,* it was decided that a man was rightly convicted of abducting a girl under the age of sixteen, though it was proved that he *bonâ fide* believed, and had reasonable ground for believing, that she was over that age. Nor again is ignorance or mistake as to law any excuse; if the intended act was in fact illegal, the doer is criminal and punishable. Nor finally does drunkenness exculpate in the law courts, though clearly, if not designed for an ulterior wicked purpose, it takes away the moral responsibility for any act beyond itself.

The result of English Common Law seems to be, that if there be an act both intended and committed which is in fact illegal, (whether to the agent's knowledge or not), or reasonably likely (as

* *Reg. v. Prince*, Law Rep., C. C. R. 154. As to the amount of knowledge necessary in a person labouring under insane delusions, see *M'Naghten's Case*, 10 Cl. and Fin. 200. If he knows he is doing a wrong act, that is sufficient.

in the case of drunkenness) to lead to acts in fact illegal, then the agent is criminally responsible not only for the act committed so far as intended, but for all acts or consequences which naturally flow therefrom, however unintentionally or even contrary to intention; but that if the intended act be wholly legal, the agent is unpunishable for any involuntary results. Whether this state of law be or be not defensible on principles of Policy or 'Police,' is, as I have shown, a delicate question; I believe that on the whole it is; but it is at least evident that in the actual law of crime which obtains in this country, "the moral nature of the act," as Sir J. Stephen says,* "has nothing to do with the question". The question is clearly one of Politics, in which the only thing considered is the *event*; although it is no use trying to prevent an event *by punishment*, unless it is an *act*, and so far intentional that the knowledge that such an act would be punished might possibly, if present, have operated to prevent it. In other cases, punishment is not the proper remedy, and some other mode of treatment must be devised: but if there be intention, punishment is not restricted to the intention in the Ethical sense, but extends to all the actual consequences of the intended act. So that even for *penal* purposes it is not that the outward act is judged by its inward 'Intention' as is the case in moral judgments, but that the inward act or intent is judged by its outward consequences. The standard of judgment remains external.

But further in the question of criminality, although the Intention has to be examined so far as to discover some illegality, when this is once found the rest is immaterial; for while the illegal intent may take colour, as we have seen, from unintended accidents, it cannot be cured or atoned for by the remaining intentions with which it was bound up. Or, to use words less strictly accurate but perhaps more generally understood, whatever be the importance of Intention, Motive is clearly immaterial. Is the act harmful? If so, it must be prevented. Was it in this instance actually or 'constructively' intended? If so, punishment is the proper remedy. That is the whole question of 'Guilty or Not Guilty,' and on that question, as juries are continually told,

* *Criminal Law of England*, p. 5. I may add that formerly (until 9 Geo. IV. c. 31) accidental homicide without *any* illegal intention was punishable by English law; and this was common to most ancient laws. See *Blackstone*, book vi., ch. 4.

Motive is irrelevant. An act of heroic virtue may be a crime: and though the law tries to make itself look moral by means of an 'irrebuttable presumption' of malice, that is clearly only a legal fiction, just as the law calls 'fraud,' what common sense thinks only an error of judgment.

The only remaining question then is as to the *degree* of punishment. Now in determining this, a consideration of motives necessarily comes in, because motives are at once the material and the instruments with which punishment has to deal. An apt illustration of this was given by the late conviction of Mr. Bradlaugh. The indictment was "that the defendants unlawfully and wickedly devising and intending to vitiate and corrupt the morals of youth and of others did publish a certain book," and the Lord Chief Justice directed the jury in these words—"If you are of opinion that this work will have an effect (however it may have been intended) subversive of the morals of society it is your duty to find the defendants guilty". The verdict was—"We find that the book is calculated to deprave public morals, but we entirely exonerate the defendants from any corrupt motives in publishing it". Thereupon the Lord Chief Justice directed them as follows—"Upon that finding you must find the defendants guilty, for I have already explained to you that if such was the effect of the book, as the intention of the defendants certainly was to publish it as it is, if you found that it was in fact calculated to deprave public morals, even though the defendants have no intention to do so, it would be your duty to find a verdict of guilty, though your exonerating them from any bad intent would be considered in the sentence";* a direction which was afterwards upheld by the Court of Queen's Bench.

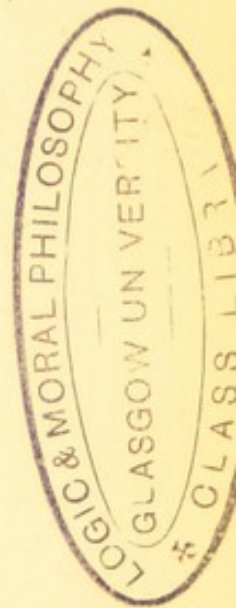
On this last point, namely, quantum of punishment, it hardly needs remark that if the motive be good and also gentle, there is no need to counteract but only to direct it into a new channel. But there are more difficult cases where the motive is of overpowering strength and cannot be easily directed. Now the motive which punishment is designed to supply must clearly be proportional to the normal motives which it is intended to counteract. The punishment should therefore be greater in proportion as the motives prompting to the injurious act are greater, unless, as for

* *Times*, June 22nd, 1877.

instance, in some cases of monomania and insanity, the preponderance of the latter is so great that it would be hopeless or too costly to outbid them. In the last case there should be no punishment at all, for useless expenditure of pain is not only cruel but clearly wasteful and impolitic. The two elements of harmfulness and temptation come in to determine the price to be paid for immunity much in the same way as the two elements of demand and cost of production determine the price of an article of commerce. Free trade in Punishment is a first principle of what I may call Penal Economy, because if the punishment be inadequate the crime will be committed: unless the State is willing to give the market-price, it will not effect its purchase. So that in considering the quantum of punishment motives do come in, but with a result *contrary* to that which they have in Morals, where great stress of motive is generally held to *diminish* guilt. Nay the very goodness of a motive may require severer punishment, as being more seductive of imitation; an illustration of which I may quote from a Scotch judgment referred to by Sir J. Stephen (*Criminal Law of England*, p. 102): "We have heard a good deal of the innocence of his intentions, but supposing he has acted from principle and that his motives are pure, I do say that he becomes a more dangerous member of society than if his conduct was really criminal and he was acting from criminal motives."

It may perhaps be objected that this refusal of Law to look at Motive comes not from principle but from its practical inability to get at the facts. No doubt in order to form any judgment, Ethical or Political, we must *in practice* stop somewhere and say that beyond this line the consequences, intended or actual as the case may be, are too remote. To settle the question therefore as to the nature of the judgment, we are led back to the classification of crimes, that is, to consider whether up to the point to which Law confessedly goes it proceeds on Ethical or non-Ethical principles. This question I have already answered, but I will here give a further illustration of the statement that criminality depends not on immorality but on danger to the state, namely, the Law of Conspiracy, by which an act, which if done separately by individuals would be harmless and so permitted, when done in concert and thus becoming a possible source of danger to the state, is punished as criminal.

To sum up:—Politics is primarily concerned with acts and



considers motives only as a means of producing acts : Ethics on the other hand is primarily concerned with motives, and looks at acts only as evidence of motives. The same act has always the same political value, whatever the motive of the agent ; but ethically it may be good on one occasion and bad on another. Hypocrisy may be politically a virtue, if a man's acts be better than his heart, but ethically it is a vice, for the intention is to deceive. If a judgment therefore be of Motives it is (or may be) a moral judgment ; but if it be of Acts it cannot be moral, but must be a judgment of some other judicature.

I contend therefore that I have established this Test of Inwardness as a true method of distinguishing a sample of Morality from a sample of Policy. Let me now apply it to Utilitarianism. Are Acts or Motives the subject-matter of Utilitarian principles ? Surely there can be but one answer.

Suppose a living being and an automaton doing exactly the same acts, the latter would be evidently just as useful, and would therefore on consistent utilitarian principles be just as virtuous as the former. This indeed seems virtually admitted by Utilitarians. "Utilitarian moralists," according to J. S. Mill (*Utilitarianism*, p. 26), "have gone beyond almost all others in affirming that the motive has nothing to do with the morality of the action, though much with the worth of the agent. He who saves a fellow-creature from drowning does what is morally right, whether his motive be duty, or the hope of being paid for his trouble : he who betrays the friend that trusts him, is guilty of a crime, even if his object be to serve another friend to whom he is under greater obligations." This is the true *political* view, but surely the casuistical doctrine that if the outward act be in itself not necessarily bad (*e.g.*, inserting your hand into another's pocket, closing your fingers and withdrawing it), the commission of it is venial whatever the motive (*e.g.*, the appropriation of the other man's purse), has long been branded as supremely *immoral*. In a note to the passage above quoted Mill draws a distinction between Intention and Motive, and says that the morality of an act depends on the former but not on the latter. But his instance of Intention as distinct from Motive, a man rescuing another from drowning in order to kill him by torture afterwards, seems to me indistinguishable from his instance of Motive, a man rescuing another in order to receive pay, or betraying one friend in order to serve another.

Surely the receiving pay or serving the second friend is just as much part of the Intention as the inflicting torture. In ordinary language Motive is perhaps distinguished from Intention as involving the remoter instead of the more immediate consequences, but it is impossible to distinguish them strictly, for, as I have said, Intention is nothing but the Act and the sum of its Motives looked upon objectively, and there is clearly no line to be drawn between the nearer and remoter consequences when both are equally foreseen. But what Mill seems (judging from a reference to Bentham) really to mean by Intention is the intended act with all its consequences whether intended or not. If so, his doctrine seems to me both *immoral*, for the morality of an action is clearly unaffected by its turning out contrary to intention; and also *impolitic*, for an act is just as useful to the community whether it be intended or not. It is an attempt to compromise between Morality and Policy, characteristic of an English thinker, but totally unphilosophical. However, Mill at least confesses that morality lies in the act and not in the agent, although he seems to place it in a hypothetical act which neither happens nor was intended. This is in itself a sufficient admission that Utilitarianism is a principle of Policy, not of Ethics.

The political nature of Utilitarianism is still more apparent in Bentham, who may be called in a sense its founder. Private Ethics comes in only as a cheaper kind of Penal code where legislative influence would be unprofitable. If Ethics is regarded as independent of Politics, as Bentham could not help seeing that it might be regarded (*e.g.*, *Principles of Morals*, ch. xix., § 1, par. 20), it then ceases to be Utilitarian; for it teaches "how each man may dispose himself to pursue the course most conducive to his own happiness," while it is the "art of legislation" which pursues "the happiness of the whole community". So that if Ethics be separated from Politics, Bentham admits that Utilitarianism is a maxim of the latter and not of the former. The object of Politics, he says, is Greatest Happiness; that of Ethics is well understood Interest: I agree. But he added (at least as interpreted by Bowring) that the two are identical: this I deny, except in an ideal society. In the present universe they are widely separate.

So far as I know, it is true of all Utilitarians except Mr. Sidgwick that they start from Politics and arrive at Morality

through Law. Mr. Sidgwick starts from popular moral maxims many of which, as I have said, though they may be called 'Morality,' are in effect rudimentary Law. Nobody has ever reached Utilitarianism through Psychology. Beginning with Helvetius, who thought virtue a political product not only as depending on the social constitution (which was the Greek view) but as being capable of artificial manufacture by legislative means, the same tendency ending in the same result runs through Bentham, Austin, Mill, and cannot be more definitely stated than in an article on 'Metaphysical Study' in the *Contemporary Review* for April last by Professor Bain. "Through Sociology," he says, "is the way to the great field of Ethics"; again "Ethics is an important supplement to social or political law, but it is still a department of law"; and he compares the relation of Ethics to Politics with that of Physics to Mathematics. No wonder then if the child is like the parent, and if Morality which is made out of Policy remain mere Policy still. The moralist is thus merely a state-functionary, and his only practical duty is to guide the distribution of praise and blame.

It would not be difficult to illustrate this also *a posteriori* by showing how maxims to which Utilitarianism leads, are clearly at variance with the first principles of Ethics. I will merely refer in passing to Mr. Sidgwick's *Methods of Ethics*, pp. 451, 452. One does not wonder that he admits that "in some points Utilitarianism is manifestly at issue with common sense"; I add 'and with Morality'.

But it may perhaps be objected—"In rejecting Utilitarianism from Ethics because it deals with acts and not with motives, you are forgetting the distinction on which Utilitarians so much rely between Motive and Criterion. We agree that Virtue consists not in the usefulness of acts, but in obeying the best motive; only we add, the best motive is the wish to do useful acts. Utility may thus be the test of virtue, and yet the motive be internal.' To this I answer: Granting your assumption of the existence of such a wish, the motive is gratifying the wish, and therefore ethically Utilitarianism can come in only as a method of Egoism; and clearly not as the whole of it—for no one can assert that the wish for Utility is his *only* wish, so that there must be some portion of Ethics which is outside the wish for Utility and superior to it. Utilitarianism, to establish its claim

to be the ruling principle of Ethics, has to *assume* not only a wish for Utility but that no human being ever had any other wish, which is absurd.

Besides a man is not omniscient, and does not know what is really useful. There must therefore be many cases where the wish for Utility leads to injurious acts, and also where selfish motives lead to useful acts. Are the former ethically better or worse than the latter? I cannot conceive any ground on which the Utilitarian can say they are better, unless he makes his standard or 'test' not Utility but our love of it, in which case he becomes an Egoist. Unless therefore he acknowledges Egoism, he must either assert that Morality is independent of Intention or Motive, which is his natural position, but which is a doctrine not of Ethics but of Politics, or he must deny the dilemma by assuming not only that every man wishes only Utility but that he knows exactly what is useful and what is not, which is again absurd.

The foregoing criticism is applicable to that doctrine of Mr. Darwin's (generally taken as the Evolutionist theory) which traces the origin of the Moral Faculty to the Social Instinct alone, and thereby makes Utility the criterion or measure though no longer the conscious motive of Morality. This hypothesis I conceive to be not only unsupported by evidence but in direct contradiction to the facts which it professes to explain. If Morality be social only, whence comes the belief that there is something higher than Honour,—nay that there is an end more worthy of attainment than the united applause of humanity? Is it not true that Honour is often opposed to Virtue,—nay is it not then strongest when it knows itself to be immoral? The social environment is in my view only one, although in some respects the most important, of the circumstances which have constituted human experience, and built up man's moral and intellectual faculties; and has contributed no more than its due share to the formation of Conscience. A man's Duty to his Neighbour is no doubt an important part of Morality; but is there no such thing as his Duty to Himself, to Nature, or to God? and if there are such Duties, how could they possibly arise from any 'Social Instinct'?

Again, if the Moral Faculty is only an organised 'Social Instinct,' whence comes the meaning of 'ought' and the authority of Conscience? Why should the Social Instinct have

any preference over other instincts? To say that it is 'more permanent' seems to me both untrue (for to take an example from Mr. Darwin himself "the wish for another man's property is as persistent a desire as any that can be named") and of no avail for the argument. For why should permanence imply authority? Mr. Darwin seems to rely on experience of the disagreeable *consequences* of preferring a lower to a higher instinct, but surely if that be so, it is those consequences which constitute the immorality, and the authority of conscience depends on the pleasure or pain it can promise. To put the argument in a slightly different form, I contend that if the moral faculty be evolved from a part only of the emotional or motive part of man's nature and be not the resultant of the whole of such motive nature, then it is impossible to account for the authority of conscience over motives which lie outside it. The only true source of the authority of conscience is in universal representation; if it is the resultant or representative of every motive it has clear 'right' and 'authority' over individual motives, but if there is any not represented in it, then if it be victorious it is the victory of might, not of right, and we have no reason to wish for its victory rather than defeat.

This difficulty of supplying a motive has been felt by all Utilitarians, and it will be found, if I mistake not, that all of them when brought to the test are obliged to have recourse more or less openly to the doctrine of Egoism, and thus to give up their principle altogether. I will give a few examples. Austin (*Jurisprudence*, vol. i., p. 112) says:—"The theory" (of Utilitarianism), "be it always remembered, is this: Our motives to obey the laws which God has given us are paramount to all others. For the transient pleasures which we may snatch, or the transient pains which we may shun, by violating the duties which they impose, are nothing in comparison with the pains by which those duties are sanctioned. The greatest possible happiness of all His sentient creatures is the purpose and effect of those laws." Thus Utility is reached from Egoism through the will of God. Paley, as is well known, explicitly adopts the same view. J. S. Mill (*Utilitarianism*, p. 53) says:—"No reason can be given why the general happiness is desirable, except that each person, so far as he believes it to be attainable, desires his own happiness"; and (*Ib.*, p. 56) "Virtue according to the Utilitarian conception is a good of

this description. There was no original desire of it, or motive to it, save its conduciveness to pleasure, and especially to protection from pain. But through the association thus formed, it may be felt a good in itself." Bentham commences his *Principles of Morals and Legislation* in these words—"Nature has placed mankind under the governance of two sovereign masters, *pain* and *pleasure*. . . . On the one hand the standard of right and wrong, on the other the chain of causes and effects, are fastened to their throne. . . . The *principle of utility* recognises the subjection, and assumes it for the foundation of that system, the object of which is to rear the fabric of felicity by the hand of reason and law." Mr. Darwin's reference to consequences I have already noticed. Also when seeking the origin of the social instinct to which he refers morality, he appeals first to the experience that aid to others brings aid in return, and secondly to the love of praise and the dread of infamy—purely self-regarding motives (*Descent of Man*, vol. i., p. 163). Mr. Sidgwick's attempt to prove Utility by the "suppression of Egoism" I dealt with in my former paper. From his short reply in the last number of *Mind* it seems that he never really meant to "confute" (or, I suppose, "suppress") Egoism at all, but only to "contradict" it by an appeal to "the common moral consciousness of mankind" which he exemplifies by the popular belief as to "the design of the Creator of the world". I admit that I took his arguments as seriously intended to "suppress," which I thought meant to "confute" Egoism, and that I did not at all realise that they were only meant to serve as a cover for the introduction of the *deus ex machinâ*. Even now I cannot quite see how, if the reasoning is bad, it is of more avail in contradicting than in confuting; nor do I see either how Mr. Sidgwick reconciles the "Dualism of the Practical Reason" in which this contradiction leaves him with the "postulate of the Practical Reason" which he mentions (p. 10), "that two conflicting rules of action cannot both be reasonable". However, it is now at any rate clear that Egoism is NOT "suppressed"; and as for contradiction, it will not much care for that, until backed by some more tangible argument than any "common belief" about "the design of the Creator of the world".

I have now offered some justification of my statement that Utilitarianism was a principle not of Ethics but of Politics, and

I have done so chiefly by a consideration of the course of Political and Ethical inquiry. In conclusion, I would briefly summarise my view of the scientific relation of Ethical and Political facts. I have already sketched their historical sequence; I now refer to their co-existence. Each man follows what at the moment of action seems to him his greatest pleasure; in other words, he does as he likes. This is an absolute physical law, and so far do I assert the 'Freedom of the Will,' that I contend that a man can no more do what he does *not* like than he can disobey the Law of Gravity. A man, therefore, is good or bad according to the number and quality of his likes and dislikes, namely, as these serve to extend the correspondence of his actions to his medium in time and space; and in the same man an action is good or bad for the same reason, that is, according to the likes and dislikes which it represents. Now the most important medium is the social; no wonder, therefore, if a man's actions be mostly regulated by his relations to others. Moreover, society is not only a 'medium,' but a higher organism, of which the individual is a part. Now families, and associations, and nations, nay even universes (for the principal is universal), which have no 'Utilitarian' habits, die; being organisms whose actions do not tend to self-preservation: and if they die, their members perish with them. Hence a certain amount of Utilitarianism is a necessary component of Egoism. But these higher organisms are also consciously active, and for their own purposes modify the actions of individuals by attaching to them certain consequences which the agent is sure to like or dislike. In these various ways, different Utilitarianisms corresponding to the different organisms of which a man is member become parts of his Egoism; but it remains true that they enter into his Morality only as methods of Egoism, and that man is the best who is best in correspondence with his whole medium. To any particular society forming part of that medium his correspondence may be that of antagonism, just as it is to excessive cold or heat. The expression of this antagonism is 'moral courage'; for, as has been well said, Law brings fear from without, but Morality makes men brave from within.

Finally, I would repeat that I have used the word Politics to mean internal and not external or international Politics, the Law of Health and not the Law of Conduct of the Political organism.

With regard to the latter I would only say that it is exactly analogous to Ethics, states being substituted for individuals as units. Motives therefore are its subject-matter, its characteristic is Inwardness, its principle Egoism. The duty of a nation to its fellows is in my opinion exactly similar to that of an individual in a similar state of society. The last qualification is no doubt important, because a more perfect altruism is possible and justifiable in a highly organised than in a rudimentary state of society. There can however be little doubt that international organisation has in Europe reached such a degree, that a nation sufficiently strong to protect its own individuality will find its own best interests in altruistic policy, in being willing to further the happiness of mankind by a temporary disadvantage to itself, and to spend money and trouble for objects that bring in no immediate return. For my part, I cannot understand how men who think so highly of unselfishness and generosity in individuals should have nothing but ridicule for the same qualities in nations. At any rate it seems to me as certain as anything can well be that if they are not virtues in the one case they are not in the other. If a man will not stretch forth his country's hand to succour the oppressed and disable the tyrant, why should he lift his own to rescue his neighbour from murder or his daughter from outrage? Yet this seems the stage which our national conscience has at present reached. The British 'Ego' has attained only to that lower egoism of 'British interests,' which for morality is content with the Pharisaic observance of treaties and a due payment of the mint, anise and cumin of diplomacy, and cannot rise to that higher Egoism whose standard is self-approbation and which finds the best realisation of self in the happiness and well-being of others. International Morality is yet unborn. May the Christ of Politics soon come, who shall give it life, by preaching to nations that Gospel of Inwardness which Christ of Nazareth once preached to men!

III.

ETHICS AND PSYCHOLOGY.*

THE world has no doubt become rather weary of the doctrine of Evolution, and inclined to rebel against its pretensions to revolutionise mental and moral science. When the first shock of a new revelation is over, reaction is sure to follow; and I believe that one of the reasons why Mr. Sidgwick's *Methods of Ethics* was so warmly welcomed, apart from its intrinsic merits, was the relief that men felt at getting back into the old paths of self-introspection and common sense, and their pleasure at seeing Evolutionism boldly sent about its business as a mere intruder whose information was not asked or in any way relevant. No doubt in the Second Edition this has been a good deal altered; the author having, as he tells us in his preface, been led to attach somewhat more importance to the theory of Evolution than formerly: but he still seems to hold that if "men do not *now* normally desire pleasure"—"to say in answer that all men *once* desired pleasure is from an Ethical point of view irrelevant". It would seem therefore that although he now to some extent admits Psychology to Ethics he would still exclude Psychogony from both.

A still stronger expression of the same view is propounded in Mr. Balfour's article in *Mind* No. IX. (Jan., 1878). Having distinguished between causes which produce and grounds which justify a belief, and assigned the first to Psychology and the second to Philosophy, he says that with regard to ultimate beliefs, of which the differentia is "that there are no grounds for believing them at all," the business of Philosophy is not to account for or prove them, but simply to disengage them and exhibit them in systematic order. Applying this to the Philosophy of Ethics, and remarking that ethical propositions differ from scientific as not stating facts but duties, he concludes that the ultimate principles of Ethics are *sui generis*, prescribing certain ends as ends-in-themselves, and that "the origin of an ultimate Ethical belief never can

* Reprinted from *Mind*, No. X. (April, 1878).

affect its validity". The functions of a moralist are therefore not to account for the origin of these ultimate beliefs, or to prove them, or "to justify the judgments which declare which of two final ends is to be preferred," but simply to clear up these ends and judgments and apply them.

Now whether the nature of moral obligation be a problem of Ethics or of Psychology is a mere question of names (though surely it is hardly questionable that Ethics means more than Casuistry, and includes an inquiry into the 'connotation' as well as the 'denotation' of virtue): but when it is said that "the origin of an ultimate ethical belief can never affect its validity," that is a statement of fact, and a statement which I venture to controvert. I think I can best put my argument in the shape of illustrations.

Suppose a creditor, having after long balancing of accounts arrived at the sum due to him and entered the result in his ledger, came to be cross-examined some years afterwards as to the class of items included in this balance and the principle on which it was made, and that he had then forgotten all about it, even the very fact that he had made it. Suppose now that there was handed to him the paper on which his previous calculations were written, showing all the items which he had added and subtracted, and a total result corresponding to that entered in the ledger; would this paper be or be not useful to 'assist his memory,' and if his recollection had gone beyond recovery, would it or would it not (supposing its genuineness proved) be relevant to the inquiry what was represented by the entry in the ledger? Or suppose a mathematician of authority had worked out an intricate formula and published it, and that this was afterwards found in a certain instance to produce an anomalous result; suppose on this that a friend could find his manuscript calculations showing that the result depended on limitations and conditions which he had omitted to express in it, and which explained the anomaly in the particular instance: would this be irrelevant? If the evidence were excluded, it would be sure to be thought that he had other grounds for his result which were unknown, and which if known might very likely be convincing; and we should thus be reduced simply to a balance of *authority* without the power of verification.

But Mr. Balfour will perhaps object that these are instances of a belief not 'ultimate' but only derivative. I might answer—"That is the very question at issue: till the entry in the ledger and the

published formula were explained, they *were* ultimate: they were shown to be derivative only by being derived, and this is just what we propose to do with Ethical formulæ'. But let me take another example. No one can deny that the sensation of hearing is 'ultimate'. Does Mr. Balfour insist that Acoustics shall deal only with sounds as heard and refuse all information as to vibrations? If so, does he remember that by the theory of vibrations various sensations of hearing have been predicted, as for instance the combination of two sounds to produce silence? Or would he say that a man has not a better knowledge of music if he understands the physical conditions of harmony and timbre, or the mathematical relations of the musical scale? Or take a kindred science to Ethics. There are many maxims or formulæ which may be called 'ultimate principles' of British Politics, and there are 'legal maxims' which may be called 'ultimate principles' of British Law. But would Mr. Balfour say that the meaning or purview of these, or even of an Act of Parliament, which is an 'ultimate principle' *in writing*, can be accurately known without a consideration of the constitutional and legal history of England? If so, how does he account for the prejudice against *doctrinaire* statesmanship, and the shudder which an Englishman feels at any 'theory' of Politics? And if Politics is clearly not bound down to a number of 'ultimate principles,' why should Ethics be so bound?

Speaking generally, I contend that in order to understand the meaning and limits of any proposition it is necessary to know the *grounds* of that proposition; and that if no grounds for it are now apparent, as Mr. Balfour holds to be the case with 'ultimate beliefs,' the only chance is to ascertain if possible what *were* the grounds on which the proposition was first believed—in other words to examine its *origin*. Of course a proposition believed at first on grounds either bad or insufficient to justify it in its full acceptance may afterwards be justified on good and sufficient grounds; but if no new grounds are discovered, it retains only what validity was given it by the old. If these be forgotten, so that the belief comes under the definition of an 'ultimate belief,' and all evidence to refresh the memory is to be rejected as 'irrelevant,' man simply becomes chained down to any illogical belief which his ancestors may have acquired, and the very fact of its being illogical is that which makes him unable to get rid of it, for being a fallacy 'there are no grounds

for believing it at all,' hence it is an 'ultimate belief' and no spuriousness of origin can affect its validity. 'We have it *now*,' as Mr. Sidgwick would say, 'what does it matter how we got it?' I on the contrary contend that the existence of a belief is no proof of its truth, unless (and I make the exception only for the sake of argument) it cannot be shown how the belief could have arisen otherwise than on the assumption of its truth. If it can be accounted for as a natural product, but a fallacy, that disposes of any evidence drawn from the fact of its existence.

To apply this to Ethics. Let us grant that there are certain 'ultimate ethical beliefs or propositions' of which the differentia is the word 'ought,' and for which no reason or ground can now be given by Introspection:—let us also grant that the problem of Ethics is not the definition of Virtue, but the enumeration of virtues. Now I allege that by going back to the time when these beliefs first appeared, I can show that the meaning of 'ought' was derived from certain simpler elements of anticipations of pleasures and pains, and that I can ascertain the grounds on which the propositions in question were first believed and stated: I further say that as no other grounds can now be given for them, these original grounds must be taken to be the only measure of the validity, intent, and extent of the propositions in question: I therefore argue that it is only by reference to these original grounds that the man who has to apply these propositions, namely the *moralist*, can guide himself, and I conclude that knowledge of the origin of moral judgments is of primary importance to Ethics. As one cannot truly understand the character of an individual man without having watched its growth or being told his history, so it is impossible to appreciate the moral nature of mankind, or reconcile its dicta, unless we study it not anatomically only, but physiologically, by retracing the steps of its development. Or to take Mr. Sidgwick's instance: I admit, not indeed in his words that 'men do not *now* normally desire pleasure alone but other things such as virtue,' but in what I conceive to be the correct expression of the fact, that men do not *now* normally take pleasure in sensual gratification alone, but in other things also such as virtue. But I say that, if I can prove that the pleasure we now take in virtue originally came from and now represents the pleasure which virtuous action produced, I add a valuable piece of information to the man who is inquiring what is the nature of virtue; for surely, if I show that

moral 'good' was made out of pleasures, I thereby disprove the theory that it contains anything else, just as if I show that water is made out of oxygen and hydrogen only, I disprove the theory that it contains carbon. I do not of course argue that in mental chemistry the compound is the exact sum of the components; but only that there is nothing more in the compound than in the components. By habit part of the components may disappear from consciousness, but no new element can be added. The motive to action need not contain all its original constituents, but it must represent them, and can be nothing but pleasure of some kind.

In Mr. Edgeworth's interesting essay on *New and Old Methods of Ethics*, noticed in *Mind* No. IX., the author suggests an "eirenicon" between Mr. Sidgwick's view and my own, namely that "non-hedonistic preference is ancestral habit". I fear I cannot accept this. For I do not admit that "habit is an exception to or a modification of the general hedonistic rule": so far as there is any preference or motive at all for an habitual action, I hold that preference or motive to be hedonistic; the only difference being that the pleasure habitually produced by the action is associated with the *action itself*, so that the action itself becomes an object of desire apart from its consequences. The same thing I hold to be true with regard to the emotions and affections, for not only do I say with Mr. Edgeworth, that these emotions and affections are "generated by association with" (or rather *of*) "experienced pleasure" and pain; but I add that being thus conglomerations of ideal pleasures and pains, they are themselves pleasurable or painful, and thus, as sources of action, are no exception to the hedonistic rule. Habit, whether individual or ancestral, operates in my view to transfer on the one hand the pleasurable idea from the end to the means, from the object to the action which secures it; and to fuse together on the other hand, or 'psycho-chemically' combine, a number of elemental feelings into a compound feeling or emotion. Thus as new organs or faculties, physical, mental, or moral, are evolved, their exercise becomes *directly* or in itself pleasurable or painful: and it is by this process and not by any supposed 'non-hedonistic preference' that I would explain the phenomenon of the fixed idea, and the other phenomena which Mr. Edgeworth thinks call for explanation. At the same time I gladly admit that the question is "to be decided by careful observation, not off-hand by definition"; and if my comparison of a thermometer

(*Mind* VI., p. 173) had been put forward as an *a priori* proof that desire or action followed the greatest pleasure, I think Mr. Edgeworth's criticism of it, as open to refutation by a discovery similar to that of water not expanding as its temperature is raised from 32° to 39°, would be decisive. It was suggested not as an inflexible standard, but as "the only practical measure" which we have; and if any man can show a clear instance of 'non-hedonistic preference' I shall be quite ready to correct the measure, and register the exception. But I say that the phenomenon of *ἀκρασία* is not such an exception, because what the measure pretends to register is not pleasures-in-themselves (if I may so speak), that is, considered as all equally distant* and equally certain; but their motive force under particular circumstances, namely those of the actor at the moment of action. Of this latter motive force it seems to me, as I said, that in fact the only practical measure which we have "is in ourselves the resultant desire, in others the resultant action," and that it is *primâ facie* a good measure is shown by the acknowledged *general* correspondence of desire and idea of pleasure. Until an

* Mr. Edgeworth says that I suppose motive force "to diminish, like the attraction of bodies, with the distance, in the inverse ratio of the square of the distance in time," and naturally appends a note of admiration. But I specially pointed out that, time having extension in one dimension only, the function involved was probably that of the *simple* inverse; and what I suggested was that the attraction of pleasure might vary not with the inverse distance alone, but according to some law involving some *function* of that quantity *together with other quantities*, one of which I mentioned (*Mind* VI., p. 174). However on reconsideration I see that the hypothesis, even as so stated, is incorrect; for it expresses a law of equal distribution of force not in *one*, but in *two* dimensions, in which the equidistant points form a circular line, just as the Newtonian law expresses it in space, which is of *three* dimensions, and in which the equidistant points form a spherical surface. For extension in one dimension there are no equidistant points, the force is theoretically independent of distance; and I come therefore to the conclusion, that to a perfect or omniscient mind of infinite duration the motive power of foreseen pleasure would not vary with its distance in time, and that the effect of 'perspective,' which experience points to, is due to our mental imperfection and finiteness, and depends primarily on difference of *probability*, and only mediately (because of the uncertainty of life and the shortness of foresight) on *remoteness* in time. This correction however does not affect my explanation of *ἀκρασία*; whatever be the cause why remote pleasures have less motive power than proximate, there can be no doubt of the fact.

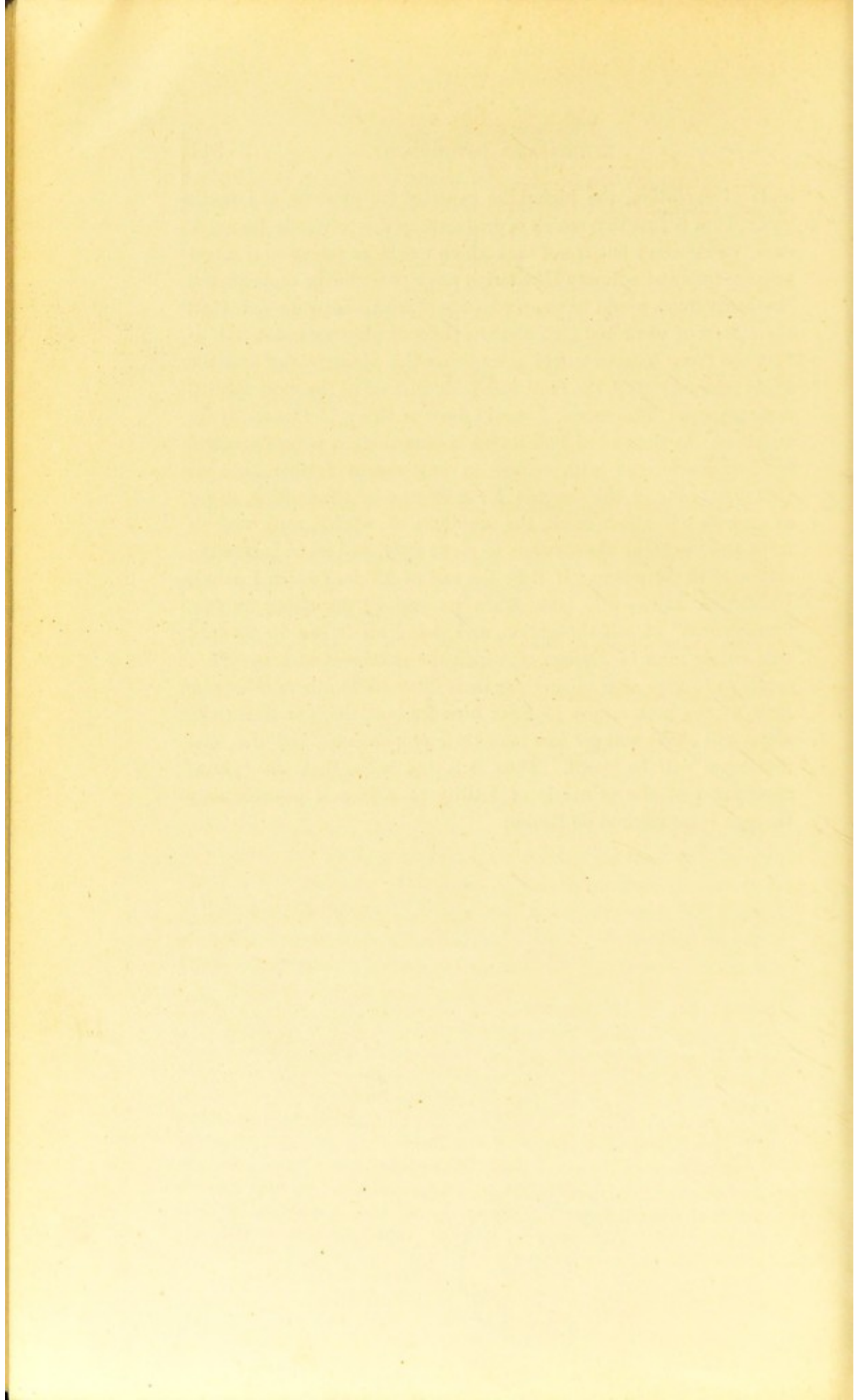
exception to this correspondence is proved, the measure must be taken to be as good a measure as a pair of scales; should such an exception be proved it may turn out to be no more or even less trustworthy than a water-thermometer.

As I have been led to mention Mr. Edgeworth's essay, I should like to make two remarks on his 'Calculus of Hedonics,' which seems to me both ably conceived and interesting. The first is that the mere statement of the problem 'to divide a certain quantity of material of pleasure among a number of men so as to produce a maximum of pleasure' is sufficient to show that it is a problem of Politics not of Ethics. The State only can apply the problem: the State only is concerned in solving it. My second observation is that to make the problem at all practical, pain-stuff, or labour, as well as pleasure-stuff, must be included in the distribuend,* and if the problem as modified be 'to make such a distribution as to produce a maximum surplus of pleasure over pain,' the conclusion reached is favourable to Egoism. For if I do my sum accurately (as to which I am not sufficiently at home in the Hedonic Calculus to feel very confident), the answer to the problem, supposing the capacity for pleasure and pain to be constant, would be that the labour must be concentrated as much as possible, or at least up to a certain limit, and the means of pleasure applied first in alleviating the pain of labour, and then equally divided; and supposing the capacity to vary, those who have the least capacity should be made to do the work, and the pleasure-stuff after paying a certain amount of wages to the workers, should go to those who have the greatest capacity for pleasure. This then, if the calculation be correct, is the meaning of 'Exact Utilitarianism' when the principle is applied as nearly as may be to actual facts. Now if we assume, as seems (speaking generally) to be the fact, that the higher a being in the

* Practically the problem is still more complex, for the sum of pleasure-stuff and pain-stuff is itself not constant but must be determined so as to supply a maximum answer to the problem stated in the text. It may be that more labour might be applied so as to produce more pleasure than the pain it cost the labourer. If so, it must be exacted, and so on until the turning-point be reached at which this is no longer the case. Further, it is evident that the higher pleasures, such as those of affection and virtue, can hardly be said to come from pleasure-stuff at all, certainly not to be proportional to it; and similarly with pains: so that the problem as stated is only a small portion of the real problem of producing a total maximum surplus of pleasure.

scale of evolution, the higher its capacity for pleasure, the result pointed out is just that which is produced by the 'struggle for existence,' or Egoism; but is *not* that which would be produced if moral practice followed ordinary Utilitarian principles: for in that case the best individuals would be those who would most readily do more than their share of work and give up their share of pleasure to the rest, so that the *lower* natures would monopolise the *pleasure-stuff* and the *higher* the *pain-stuff*, the most infelicitic instead of the most felicific arrangement. The moral I would draw is this: If 'Exact Utilitarianism' be the end of Politics (as is plausible), it is best attained by non-interference with nature to any extent further than to secure fair play in the struggle for existence by eliminating, so far as they do not affect merit, the accidents of wealth, rank and so forth and confining the struggle to merit only, and so to hasten the course of development: if it be the end of Ethics (which I deny), Utilitarian Ethics will best attain its end by practising its own 'preachment' of self-abnegation, and doing all it can to forward that vulgar form of Egoism of which the maxim is success. If it continue to urge men to sacrifice their interests to others otherwise than as the best means to their own success, the best men (who alone will obey) will get less than their proper share, and the total maximum will be spoilt. Thus it would seem that the 'exact' application of the principle of Utility to Ethics is possible only through some method of Egoism.





14, HENRIETTA STREET, COVENT GARDEN, LONDON;
20, SOUTH FREDERICK STREET, EDINBURGH.

CATALOGUE

OF

WILLIAMS AND NORGATE'S PUBLICATIONS.

-
- Abhidhanaratnamala, the, of Halâyudha. A Sanskrit Vocabulary (120 pp.), edited, with a complete Sanskrit-English Glossary (180 pp.), by Dr. T. Aufrecht. 8vo. (Published at 18s.) 10s.
- Æschylus. Agamemnon. Greek Text revised and translated by John F. Davies, B.A. 8vo, cloth. 3s.
- Ali (Syed Ameer) Life of Mohammed. A Critical Examination of the Life and Teachings of Mohammed, from a Mohammedan Standpoint, including Chapters on Polygamy, Slavery, Moslem Rationalism, Moslem Mysticism, &c. Crown 8vo, cloth. 9s.
- Attwell (Professor H.) Table of Aryan (Indo-European) Languages, showing their Classification and Affinities, with copious Notes; to which is added, Grimm's Law of the Interchange of Mute Consonants, with numerous Illustrations. A Wall Map for the use of Colleges and Lecture-rooms. 2nd Edition. Mounted with rollers. 10s.
- Table of the Aryan Languages, with Notes and Illustrations. 4to, boards. 7s. 6d.
- Autobiography of an Independent Minister, Chapters from the. Cr. 8vo, cloth, 4s.
- Bannister (Rev. Dr. J.) Glossary of Cornish Names, Ancient and Modern, Local, Family, Personal, 20,000 Celtic and other Names in use in Cornwall. 8vo, cloth. 12s.
- Barnabas' Epistle, in Greek, from the Sinaitic Manuscript of the Bible, with a Translation by S. Sharpe. Crown 8vo, cloth. 2s. 6d.
- Barratt (A.) Physical Ethics, or the Science of Action: an Essay. 8vo, cloth. 12s.
- Baur (F. O.) Church History of the First Three Centuries. Translated from the Third German Edition. Edited by Rev. Allan Menzies. 2 vols. 8vo, cloth. 21s.
- Paul, the Apostle of Jesus Christ, his Life and Work, his Epistles and Doctrine. A Contribution to a Critical History of Primitive Christianity. Translated by Rev. A. Menzies. 2 vols. 8vo, cloth. 21s.
- Bayldon (Rev. G.) Icelandic Grammar. An Elementary Grammar of the Old Norse or Icelandic Language. 8vo, cl. 7s. 6d.
- Beard (Rev. C.) Port Royal, a Contribution to the History of Religion and Literature in France. 2 vols. 8vo. 12s.
- Bernstein and Kirsch. Syriac Chrestomathy and Lexicon. Chrestomathia Syriaca cum Lexico. 2 vols. in 1. 8vo, cloth. 7s. 6d.
- Bible, translated by Samuel Sharpe, being a Revision of the Authorized English Version. 5th Edition of the Old Testament, 9th Edition of the New Testament. 8vo, roan. 4s. 6d.
- vide also Testament.

- Bible for Young People. A Critical, Historical, and Moral Handbook to the Old and New Testaments. By Dr. H. Oort and Dr. J. Hooykaas, with the assistance of Dr. Kuenen. Translated from the Dutch by the Rev. P. H. Wicksted. 6 vols. Crown 8vo. 31s.
- Bisset (A.) Short History of the English Parliament. Crown 8vo. 4s.
- Bleek (F.) Lectures on the Apocalypse. Edited by Dr. S. Davidson. 8vo, cloth. 10s. 6d.
- Bouzique (E. U.) The History of Christianity. Translated from the French by the Rev. Dr. Beard. 3 vols. Crown 8vo, cloth. 21s.
- Bryce (Rev. Dr.) The Laws of Greek Accentuation simplified. 3rd Edition. 12mo. 6d.
- Channing and Lucy Aikin. Correspondence of William Ellery Channing, D.D., and Lucy Aikin, from 1826 to 1842. Edited by Anna Letitia Le Breton. Crown 8vo, cloth. (Published at 9s.) 4s.
- Chastel (Rev. E.) Christianity in the Nineteenth Century. Translated by the Rev. Dr. Beard. Crown 8vo, cloth. 5s.
- Cholmondeley (Canon Charles) The Passage of the Four GAP. A New Explanation of Romans ii. 11—16, with its bearing on the Intrinsic and Extrinsic Systems of Justification by Faith, and on the Pauline Views of the Tübingen Critics and others. 8vo, cloth. 7s. 6d.
- Cobbe (Miss F. Power) The Peak in Darien, and other Inquiries touching Concerns of the Soul and the Body. Crown 8vo, cloth. 7s. 6d.
- The Duties of Women. A Course of Lectures delivered in London and Clifton. 2nd Edition. Crown 8vo, cloth. 5s.
- The Hopes of the Human Race, Hereafter and Here. Essays on the Life after Death. With a Preface having special reference to Mr. Mill's Essay on Religion. 2nd Edition. Cr. 8vo. 5s.
- Cobbe (Miss F. Power) Alone to the Alone. Prayers for Theists, by several Contributors. 3rd Edition. Crown 8vo, cloth. 5s.
- Broken Lights. An Inquiry into the Present Condition and Future Prospects of Religious Faith. 3rd Edition. 5s.
- Dawning Lights. An Inquiry concerning the Secular Results of the New Reformation. 8vo, cloth. 5s.
- Darwinism in Morals, and (13) other Essays (Religion in Childhood, Unconscious Cerebration, Dreams, the Devil, Auricular Confession, &c. &c.). 8vo, cloth. 5s.
- Crawford (Rev. F.) Horæ Hebraicæ. Cr. 8vo, cloth. 4s. 6d.
- Crowfoot (J. R.) Fragmenta Evangelica quæ ex antiqua recens. vers. Syriac. Nov. Test. a Curetono vulg. Græce reddita, &c. 2 Parts; and Observations, 1 Part. 4to. 20s.
- Cureton (Dr. W.) History of the Martyrs in Palestine, by Eusebius, in Syriac. Edited and translated. Royal 8vo, cloth. 10s. 6d.
- Dante's Inferno. Translated into Greek verse by Mussurus Pasha, D.C.L. 8vo, cloth. 12s.
- Dauids (T. W. Rhys) Lectures on the Origin and Growth of Religion, as illustrated by some Points in the History of Indian Buddhism. (Hibbert Lectures, 1881.) 8vo, cloth. 10s. 6d.
- Davidson (Rev. Dr.) On a Fresh Revision of the English Old Testament. Crown 8vo. 5s.
- Delbos (Prof. Léon) Chapters on the Science of Language. Crown 8vo, cloth. 3s.
- Dipavamsa, the: a Buddhist Historical Record in the Pali Language. Edited, with an English Translation, by Dr. H. Oldenberg. 8vo, cloth. 21s.
- Dunkin (E., F.R.S.) Obituary Notices of Astronomers, Fellows and Associates of the Royal Astronomical Society. 8vo, cloth. 6s. 6d.

- Echoes of Holy Thoughts: arranged as Private Meditations before a First Communion. 2nd Edition, with a Preface by Rev. J. Hamilton Thom. Printed with red lines. Fcap. 8vo, cloth. 2s. 6d.
- Engelhardt (C.) Denmark in the Early Iron Age. Illustrated by recent Discoveries in the Peat-Mosses of Slesvig. 33 Plates (giving representations of upwards of a thousand objects), Maps, and numerous other Illustrations on wood. 4to, cloth. 31s. 6d.
- Ereuna, or an Investigation of the Etymons of Words and Names, Classical and Scriptural, through the Medium of Celtic; together with some Remarks on Hebræo-Celtic Affinities. By a Celtophile. Crown 8vo, cloth. 6s.
- Ewald's (Dr. H.) Commentary on the Prophets of the Old Testament. Translated by the Rev. J. F. Smith. Vol. I. General Introduction, Yoel, Amos, Hosea and Zakharya 9—11. Vol. II. Yesaya, Obadya and Mikha. Vol. III. Nahûm, Ssephanya, Habaqqûq, Zachârya, Yéremya. Vol. IV. Hezekiel, Yesaya xl.—lxvi. Vol. V. and last, Haggai, Zakharya, Malaki, Jona, Baruc, Daniel, Appendix and Index. 8vo, cloth. Each 10s. 6d.
- Commentary on the Psalms. Translated by the Rev. E. Johnson, M.A. 2 vols. 8vo, cloth. Each 10s. 6d.
- Commentary on the Book of Job, with Translation. Translated from the German by the Rev. J. Frederick Smith. 8vo, cloth. 10s. 6d.
- Falconer (Dr. W.) Dissertation on St. Paul's Voyage from Cæsarea to Puteoli, and on the Apostle's Shipwreck on the Island Melite. 8vo, cloth. 3s. 6d.
- Frankfurter (Dr. O.) Pali Handbook; being (1) A Pali Grammar, (2) Pali Texts, (3) Glossary. 8vo.
- Fuerst (Dr. Jul.) Hebrew and Chaldee Lexicon to the Old Testament. 4th Edition, improved and enlarged. Translated by Rev. Dr. Samuel Davidson. Royal 8vo, cloth. 21s.
- Kept also half-bound morocco. 26s.
- Goldschmidt (H. E.) German Poetry; with the English Versions of the best Translators. Poems of Goethe, Schiller, Freiligrath, Bürger, Heine, Uhland, Körner, &c. &c. Translated by Carlyle, Anster, Blackie, Sir Th. Martin, Shelley, Lord Ellesmere, Lord Lytton, Coleridge, Longfellow, Edgar Bowring, Garnett, &c. 8vo, cloth. 5s.
- Gostwick (J.) and R. Harrison. Outlines of German Literature. Dedicated to Thos. Carlyle. New Edition. 8vo. 10s.
- Gotch (Rev. Dr. J. W.) Codex Cottonianus. A Supplement to Tischendorf's Fragments in the Monumenta Sacra. Together with a Synopsis of the Codex. Facsimile. 4to, cloth. 7s. 6d.
- Gould (Rev. S. Baring) Lost and Hostile Gospels. An Account of the Toledoth Jeshu, two Hebrew Gospels circulating in the Middle Ages, and extant Fragments of the Gospels of the first Three Centuries of Petrine and Pauline Origin. Crown 8vo, cloth. 7s. 6d.
- Hanson (Sir R. D.) The Apostle Paul and the Preaching of Christianity in the Primitive Church. By Sir R. D. Hanson, Chief Justice of South Australia, Author of "The Jesus of History," &c. 8vo, cloth. (Published at 12s.) 7s. 6d.
- Hardy (R. Spence) Manual of Buddhism in its Modern Development. Translated from Cingalese MSS. 2nd Edition, with a complete Index and Glossary. 8vo, cloth. 21s.
- Eastern [Buddhist] Monachism; an Account of the Origin, Laws, Discipline, Sacred Writings, &c. &c. of the Order of Mendicants founded by Gotama Buddha. 8vo, cloth. 12s.
- Hariri. The Assemblies of Al Hariri. Translated from the Arabic, with an Introduction and Notes. Vol. I. Introduction and the first Twenty-six Assemblies. By T. Chenery, Esq. 8vo, cloth. 10s.

- Hausrath.** History of the New Testament Times. The Time of Jesus. By Dr. A. Hausrath, Professor of Theology, Heidelberg. Translated by the Revds. C. T. Poynting and P. Quenzer. 2 vols. 8vo, cloth. 21s.
- Hemans (Chas. I.)** Historic and Monumental Rome. A Handbook for the Students of Classical and Christian Antiquities in the Italian Capital. Crown 8vo, cloth. 10s. 6d.
- History of Mediæval Christianity and Sacred Art in Italy (A.D. 900—1500). 2 vols. Crown 8vo, cloth. 18s.
- Higginson (Rev. E.)** Ecce Messias: or, The Hebrew Messianic Hope and the Christian Reality. 8vo, cloth. (Published at 10s. 6d.) 6s.
- Horne (W.)** Religious Life and Thought. By William Horne, M.A., Dundee, Examiner in Philosophy in the University of St. Andrews; Author of "Reason and Revelation." Crown 8vo, cloth. 3s. 6d.
- Huebner (A.)** Inscriptiones Britanniae Christianae, with three Geographical Tables. 4to, boards. 16s.
- Keim's History of Jesus of Nazara.** Considered in its connection with the National Life of Israel, and related in detail. Translated from the German by Arthur Ransom. Vol. I. 2nd Edition. Introduction, Survey of Sources, Sacred and Political Groundwork, Religious Groundwork. Vol. II. The Sacred Youth, Self-recognition, Decision. Vol. III. The First Preaching, the Works of Jesus, the Disciples, and Apostolic Mission. Vol. IV. Conflicts and Disillusions, Strengthened Self-confidence, Last Efforts in Galilee, Signs of the approaching Fall, Recognition of the Messiah. Vol. V. The Messianic Progress to Jerusalem, The Entry into Jerusalem, The Decisive Struggle, The Farewell, The Last Supper. (Vol. VI. in the press.) 8vo, cloth. Each 10s. 6d.
- Kuenen (Dr. A.)** The Religion of Israel to the Fall of the Jewish State. Translated by A. H. May. 3 vols. 8vo. 31s. 6d.
- Lectures on National Religions and Universal Religions. (Hibbert Lectures, 1882.) 8vo, cloth. 10s. 6d.
- Laing and Huxley.** Pre-Historic Remains of Caithness. By Samuel Laing, Esq., with Notes on the Human Remains by Th. H. Huxley, F.R.S. 150 Engravings. 8vo, cloth. 9s.
- Lane (E. W.)** Arabic-English Lexicon, derived from the best and most copious Eastern Sources. Vols. I. to VI. (to be completed in 8 vols.). Royal 4to. Each 25s.
- Vol. VII. Fascic. I. II. Edited by Stanley Lane-Poole. 4to. Each 6s.
- Latham (Dr. R. G.)** Two Dissertations on the Hamlet of Saxo-Grammaticus and of Shakespear. 8vo. 5s.
- Lepsius (C. R.)** Standard Alphabet for reducing Unwritten Languages and Foreign Graphic Systems to a Uniform Orthography in European Letters. 2nd Edition. 8vo, cloth. 3s.
- Letters to and from Rome in the Years A.D. 61, 62, and 63.** Translated by C. V. S. (by Sir Richard Hanson). Crown 8vo, cloth. 2s. 6d.
- Lindsay (Dr. James, M.A.)** The Analytical Interpretation of the System of Divine Government of Moses. 2 vols. 12mo, cloth. 6s.
- Linguistic Notes on some Obscure Prefixes in Greek and Latin.** (4 Parts.) Crown 8vo, cloth. 6s. 6d.
- Macan (R. W.)** The Resurrection of Jesus Christ. An Essay in three Chapters. Published for the Hibbert Trustees. 8vo, cloth. 5s.
- Mackay (R. W.)** Sketch of the Rise and Progress of Christianity. 8vo, cloth. (Published at 10s. 6d.) 6s.

- Malan (Rev. Dr. S. C.)** The Book of Adam and Eve, also called the Conflict of Adam and Eve with Satan. A Book of the early Eastern Church. Translated from the Ethiopic, with Notes from the Kufale, Talmud, Midrashim, and other Eastern works. 8vo, cloth. 7s. 6d.
- Massey (Gerald)** A Book of the Beginnings. Containing an Attempt to recover and reconstitute the lost Origines of the Myths and Mysteries, Types and Symbols, Religion and Language, with Egypt for the Mouthpiece and Africa as the Birthplace. 2 vols. Imperial 8vo, cloth. 36s.
- Milinda Panho, the.** Being Dialogues between King Milinda and the Buddhist Sage Nāgasena. The Pali Text, edited by V. Trenckner. 8vo. 21s.
— vide also Pali Miscellany.
- Mind, a Quarterly Review of Psychology and Philosophy.** Nos. 1—28. 1876-82. 8vo, each 3s. Annual Subscription, post free, 12s.
- Müller (Professor Max)** Lectures on the Origin and Growth of Religion, as illustrated by the Religions of India. (Hibbert Lectures, 1878.) 8vo, cloth. 10s. 6d.
- Nibelungenlied.** The Fall of the Nibelungers, otherwise the Book of Kriemhild. An English Translation by W. N. Lettsom. Crown 8vo, cloth. 7s. 6d.
- Nicolson (Rev. W. M.)** Classical Revision of the Greek New Testament. Tested and applied on uniform Principles, with suggested Alterations of the English Version. Crown 8vo, cloth. 3s. 6d.
- Norris (E.)** Assyrian Dictionary. Intended to further the Study of the Cuneiform Inscriptions of Assyria and Babylonia. Vols. I. to III. 4to, cloth. Each 28s.
- O'Curry (Eug.)** Lectures on the Social Life, Manners and Civilization of the People of Ancient Erinn. Edited, with an Introduction, by Dr. W. K. Sullivan. Numerous Wood Engravings of Arms, Ornaments, &c. 3 vols. 8vo. 42s.
- Oldenberg (Prof. H.)** Buddha, his Life, his Doctrine, and his Order. Translated by Dr. Wm. Hoey, B.C.S. 8vo. 18s.
— vide Vinaya Pitakam.
- Pali Miscellany**, by V. Trenckner. Part I. The Introductory Part of the Milinda Panho, with an English Translation and Notes. 8vo. 4s.
- Panhellenic Annual for 1880.** Edited by S. Parasyrakes. With 21 Illustrations. With Contributions by E. A. Freeman, Professor R. C. Jebb, Professor Ranghabe, the Editor, and many other eminent Greek Scholars. 8vo, cloth gilt edges. 5s.
- Peil (Rev. George)** The Threefold Basis of Universal Restitution. Crown 8vo, cloth. 3s.
- Pennethorne (John)** The Geometry and Optics of Ancient Architecture, illustrated by Examples from Thebes, Athens and Rome. Folio, with 56 Plates, some in colours. Half morocco. £7. 7s.
- Pfleiderer (O.)** Paulinism: a Contribution to the History of Primitive Christian Theology. Translated by E. Peters. 2 vols. 8vo. 21s.
— Philosophy of Religion. Translated by the Rev. Alexander Stewart, of Dundee. (In 3 vols.) Vol. I. 8vo.
- Platonis Philebus**, with Introduction, Notes and Appendix; together with a Critical Letter on the "Laws" of Plato, and a Chapter of Palæographical Remarks, by the Rev. Dr. Chas. Badham, D.D. 2nd Edition, enlarged. 8vo, cloth. 4s.
— Euthydemus et Laches, with Critical Notes and "Epistola critica" to the Senate of the Leyden University, by the Rev. C. Badham, D.D. 8vo, cl. 4s.
— Convivium (Symposium), with Critical Notes and an Epistola (de Platonis Legibus) to Dr. Thompson, Master of Trinity College, Cambridge, by the Rev. C. Badham, D.D. 8vo, cloth. 4s.

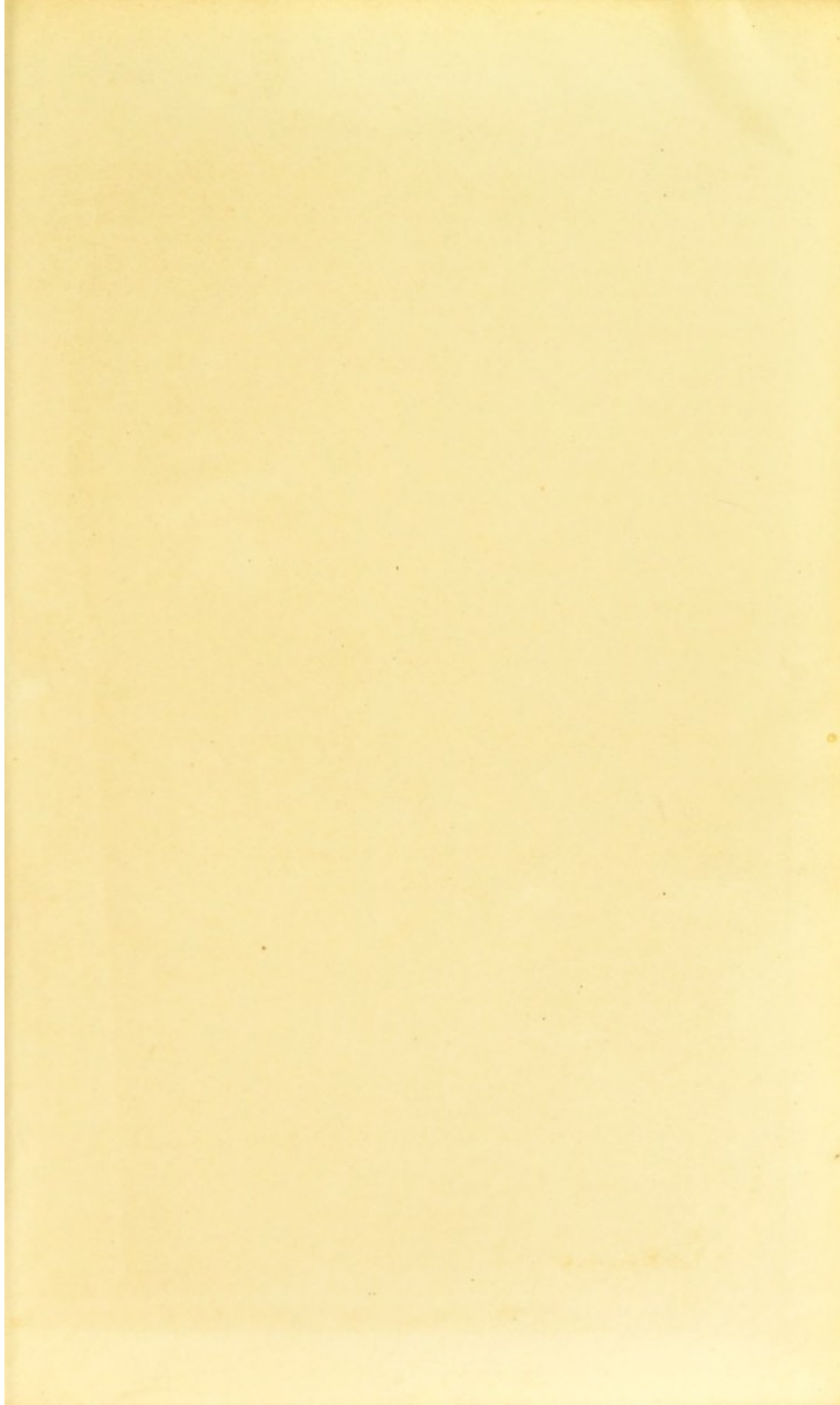
- Protestant Commentary, A Short, on the Books of the New Testament:** with general and special Introductions. Edited by Professors P. W. Schmidt and F. von Holzendorff. Translated from the Third German Edition, by the Rev. F. H. Jones, B.A. (In 3 vols.) Vol. I. Matthew to Acts. 8vo, cloth. 10s. 6d.
- Quarry (Rev. J.) Genesis and its Authorship.** Two Dissertations. 2nd Edition, with Notice of Animadversions of the Bishop of Natal. 8vo. 12s.
- Reliquiæ Aquitanicæ;** being Contributions to the Archæology and Palæontology of Périgord and the adjoining Provinces of Southern France. By Lartet and Christy. Edited by T. Rupert Jones, F.R.S., F.G.S. 87 Plates, 3 Maps, and 130 Wood Engravings. Royal 4to, cloth. £3. 3s.
- Renan (E.) On the Influence of the Institutions, Thought and Culture of Rome on Christianity and the Development of the Catholic Church.** Translated by the Rev. C. Beard. (Hibbert Lectures, 1880.) 8vo, cloth. 10s. 6d.
- Renouf (P. le Page) Lectures on the Origin and Growth of Religion as illustrated by the Religion of Ancient Egypt.** (Hibbert Lectures, 1879.) 8vo, cloth. 10s. 6d.
- Reville (Rev. Dr. A.) The Song of Songs, commonly called the Song of Solomon, or the Canticle.** Crown 8vo, cl. 1s. 6d.
- Sadi. The Gulistan (Rose-Garden) of Shaik Sadi of Shiraz.** A new Edition of the Persian Text, with a Vocabulary, by F. Johnson. Square royal 8vo, cloth. 15s.
- Samuelson (James) Views of the Deity, Traditional and Scientific: a Contribution to the Study of Theological Science.** Crown 8vo, cloth. 4s. 6d.
- Schmidt (A.) Shakespeare Lexicon.** A complete Dictionary of all the English Words, Phrases, and Constructions in the Works of the Poet. 2 vols. Imp. 8vo, 30s.; cloth, 34s.
- Schurman (J. G.) Kantian Ethics and the Ethics of Evolution. A Critical Study.** (Published by the Hibbert Trustees.) 8vo, cloth. 5s.
- Seth (A.) The Development from Kant to Hegel, with Chapters on the Philosophy of Religion.** (Published by the Hibbert Trustees.) 8vo, cloth. 5s.
- Sharpe (Samuel) History of the Hebrew Nation and its Literature.** With an Appendix on the Hebrew Chronology. 4th Edition, 487 pp. 8vo, cl. 7s. 6d.
- **The Decree of Canopus, in Hieroglyphics and Greek, with Translations and an Explanation of their Hieroglyphical Characters.** 16 Plates. 8vo, cloth. 7s. 6d.
- **Hebrew Inscriptions from the Valleys between Egypt and Mount Sinai, in their Original Characters, with Translations and an Alphabet.** 2 Parts. 20 Plates. 8vo, cloth. 7s. 6d.
- vide also Bible, and Testament.
- Sharpe (M.) Old Favourites from the Elder Poets, with a few Newer Friends. A Selection.** 418 pp. Crown 8vo, cl. 5s.
- Smith (Rev. J. F.) Studies in Religion under German Masters. Essays on Herder, Goethe, Lessing, Frank, and Lang.** Crown 8vo, cloth. 5s.
- vide Ewald's Prophets and Job.
- Sophocles. The Greek Text critically revised, with the aid of MSS., newly collated and explained.** By Rev. F. H. M. Blaydes. I. Philoctetes. II. Trachiniae. III. Electra. IV. Ajax. 8vo, cloth. Each 6s.
- Spencer (Herbert) First Principles.** 5th Thousand, with an Appendix. 8vo. 16s.
- **The Principles of Biology.** 2 vols. 8vo. 34s.
- **The Principles of Psychology.** 4th Thousand. 2 vols. 8vo. 36s.
- **The Principles of Sociology. Vol. I.** 21s.
- **Ceremonial Institutions. (Principles of Sociology, Vol. II. Part 1.)** 8vo. 7s.

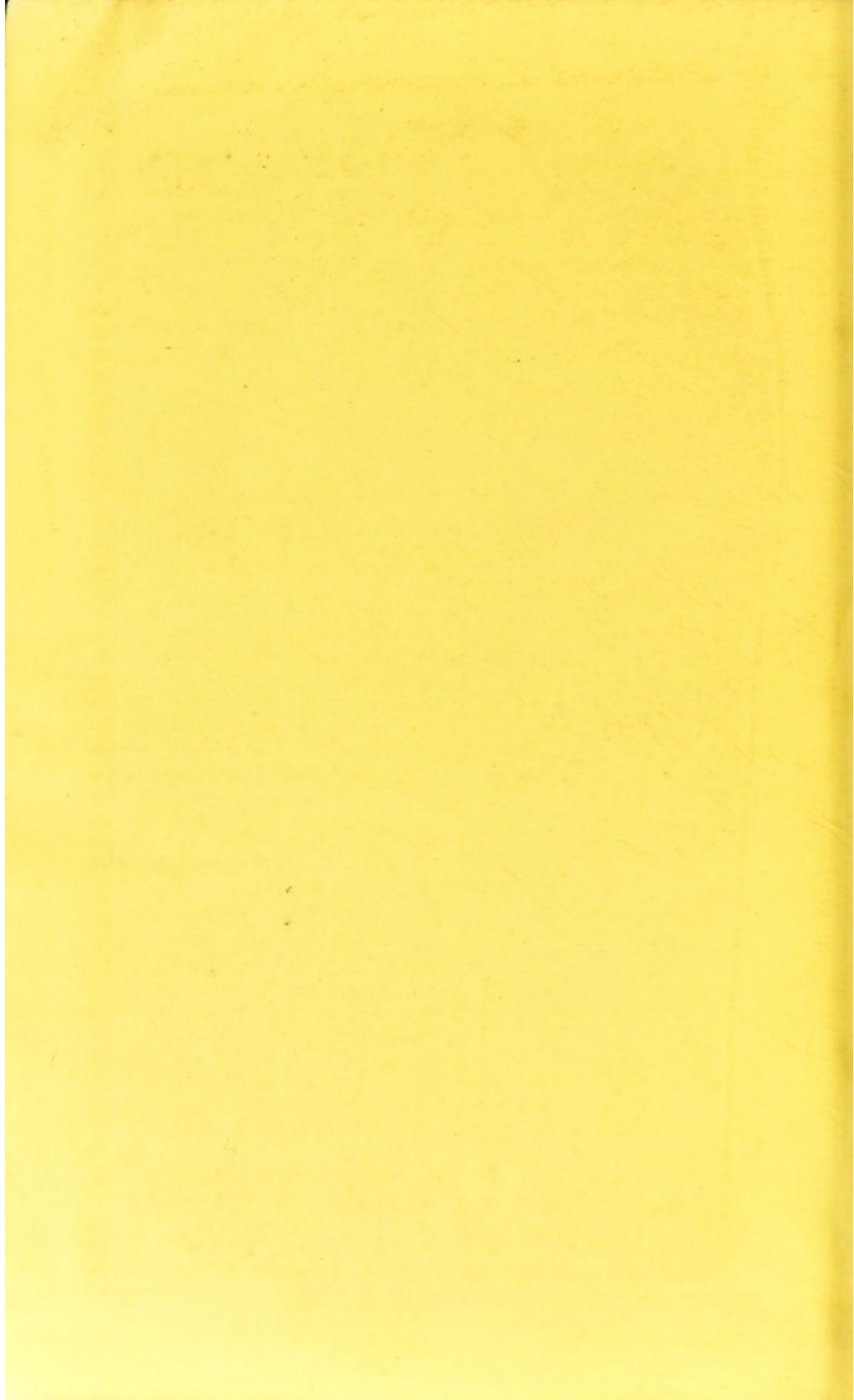
- Spencer (Herbert) Political Institutions. (Principles of Sociology, Vol. II. Part 2.) 8vo. 12s.
- The Data of Ethics. Being the First Portion of the Principles of Ethics. 8vo, cloth. 8s.
- The Study of Sociology. Library Edition (being the 9th), with a Post-script. 8vo, cloth. 10s. 6d.
- Education: Intellectual, Moral, and Physical. 8vo, cloth. 6s.
- The same, cheaper Edition, 4th Thousand. 12mo, cloth. 2s. 6d.
- Classification of the Sciences: to which are added, Reasons for dissenting from the Philosophy of M. Comte. 2nd Edition. 8vo. 2s. 6d.
- Essays: Scientific, Political, and Speculative. (Being the First and Second Series re-arranged, and containing an additional Essay.) 2 vols. 3rd Thousand. 8vo, cloth. 16s.
- Essays. (Third Series.) Including the Classification of the Sciences. 3rd Edition. 8vo. 8s.
- Descriptive Sociology, or Groups of Sociological Facts. Compiled and abstracted by Professor D. Duncan, of Madras, Dr. Richard Sheppig, and James Collier. Folio, boards. No. 1. English, 18s. No. 2. Ancient American Races, 16s. No. 3. Lowest Races, Negritto Races, Polynesians, 18s. No. 4. African Races, 16s. No. 5. Asiatic Races, 18s. No. 6. American Races, 18s. No. 7. Hebrews and Phœnicians, 21s. No. 8. The French Civilization, 30s.
- Spinoza. Four Essays by Professors Land, Van Vloten, and Kuno Fischer, and by E. Renan. Edited by Professor Knight, of St. Andrews. Crown 8vo, cloth. 5s.
- Stephens (George) Old Northern Runic Monuments of Scandinavia and England, now first collected and deciphered. Numerous Engravings on Wood and 15 Plates. Vols. I. and II. Folio. Each 50s.
- Vol. III. (In the Press.)
- Macbeth, Earl Siward and Dundee: a Contribution to Scottish History from the Rune-Finds of Scandinavia. Plates. 4to. 2s.
- Thunor the Thunderer, carved on a Scandinavian Font about the year 1000. 4to. 6s.
- Stokes (Whitley) Old Irish Glossaries. Cormac's Glossary. O'Davoran's Glossary. A Glossary to the Calendar of Oingus the Culdee. Edited, with an Introduction and Index. 8vo, cloth. 10s. 6d.
- Middle-Breton Hours. Edited, with a Translation and Glossary. 8vo, boards. 6s.
- The Creation of the World. A Mystery in Ancient Cornish. Edited, with Translations and Notes. 8vo, cloth. 6s.
- Strauss (Dr. D. F.) Life of Jesus for the People. The Authorized English Edition. 2 vols. 8vo, cloth. 24s.
- Sullivan (W. K.) Celtic Studies, from the German of Dr. Hermann Ebel, with an Introduction on the Roots, Stems and Derivatives, and on Case-endings of Nouns in the Indo-European Languages. 8vo, cloth. 10s.
- Taine (H.) English Positivism. A Study of John Stuart Mill. Translated by T. D. Haye. Crown 8vo, cloth. 3s.
- Tayler (Rev. John James) An Attempt to ascertain the Character of the Fourth Gospel, especially in its relation to the first Three. 2nd Edition. 8vo, cl. 5s.
- Testament, The New. Translated by S. Sharpe, Author of "The History of Egypt," &c. 14th Thousand. Fcap. 8vo, cloth. 1s. 6d.
- Thoughts (365) for Every Day in the Year. Selected from the Writings of Spiritually-minded Persons. By the Author of "Visiting my Relations." Printed with red lines. Crown 8vo, cl. 2s. 6d.

- Tien (Rev. A.) *The Levant Interpreter: a Polyglot Dialogue-book, in English, Turkish, Modern Greek, and Italian.* Crown 8vo. 5s.
- Turpie (Dr. D. McC.) *The Old Testament in the New. The Quotations from the Old Testament in the New classified according to their Agreement with or Variation from the Original: the various Readings and Versions of the Passages, Critical Notes.* Royal 8vo, cloth. 12s.
- *Manual of the Chaldee Language: containing Grammar of the Biblical Chaldee and of the Targums, a Chrestomathy, Selections from the Targums, with a Vocabulary.* Square 8vo, cl. 7s.
- Vinaya Pitakam: one of the principal Buddhist Holy Scriptures. Edited in Pali by Dr. H. Oldenberg. In 5 vols. 8vo. Vol. I. *The Mahāvagga.* Vol. II. *The Cullavagga.* Vol. III. *The Suttavibhanga, I. (Pârâjika, Samghâdisesa, Aniyata Nissaggiya).* Vol. IV. *The Suttavibhanga, II. (Mahavibhanga, Bhikkunivibhanga).* 8vo. Each 21s.
- Williams (Rev. Dr. Rowland) *The Hebrew Prophets, during the Assyrian and Babylonian Empires. Translated afresh from the Original, with regard to the Anglican Version, with Illustrations for English Readers.* 2 vols. 8vo, cloth. 22s. 6d.
- *Psalms and Litanies, Counsels and Collects, for Devout Persons.* By Rowland Williams, D.D., late Vicar of Broadchalke, sometime Senior Fellow and Tutor of King's College, Cambridge. Edited by his Widow. Fcap. 4to, cloth extra. 12s. 6d.
- *Broadchalke Sermon - Essays on Nature, Mediation, Atonement, Absolution, &c.* Crown 8vo, cloth. 7s. 6d.
- Zeller (Dr. E.) *The Contents and Origin of the Acts of the Apostles critically investigated. Preceded by Dr. Fr. Overbeck's Introduction to the Acts of the Apostles from De Wette's Handbook.* Translated by Joseph Dare. 2 vols. 8vo, cloth. 21s.

WILLIAMS & NORGATE have published the following Catalogues of their Stock.

- | | |
|---|---|
| 1. CLASSICAL CATALOGUE. Greek and Latin Classics. | 6. ORIENTAL CATALOGUE. Oriental Languages and Literature. |
| 2. THEOLOGICAL CATALOGUE. Including Philosophy and Metaphysics. | 7. MEDICAL CATALOGUE. Medicine, Surgery, &c. |
| 3. FRENCH CATALOGUE. General Literature, History, Travels, &c. | 8. NATURAL HISTORY CATALOGUE. Zoology, Botany, Geology, Palæontology. |
| 4. GERMAN CATALOGUE. General Literature. | 9. NATURAL SCIENCE CATALOGUE. Mathematics, Astronomy, Physics, Mechanics, Chemistry, &c. |
| * MAP CATALOGUE. Foreign Maps and Atlases. | 10. ART CATALOGUE. Architecture, Painting, Sculpture and Engraving. Books illustrated by Artists. |
| 5. LINGUISTIC CATALOGUE. European Languages. | 11. SCHOOL CATALOGUE. Elementary Books, Maps, &c. |
| * ITALIAN CATALOGUE. | |
| * SPANISH CATALOGUE. | |





✓

