

# BRITISH AND FOREIGN EVANGELICAL REVIEW.

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APRIL 1868.

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## ART. I.—*The Swedish Reformation.*

1. *Svenska Kyrkans Historia*. Af Dr H. REUTERDAHL. Fjerde Bandet. Sverige under Konung Gustaf I. Lund, 1866. (History of the Swedish Church. By Dr H. Reuterdaahl. Fourth Volume. Sweden under Gustavus the First. Lund, 1866.)
2. *Svenska Kyrkoreformationens Historia*. I tre afdelningar. Af L. A. ANJOU. Upsala, 1850. (History of the Reformation in Sweden. In three divisions. By L. A. Anjou. Upsala, 1850.)

IN a previous article\* we were privileged to trace the deeply interesting history of the Swedish Reformation from its earliest commencement until the election of Laurentius Petri to the metropolitan see of Upsala in 1531. Following, for the main part, the guidance of Bishop Anjou,† in his learned and singularly lucid work, we pursued the path of ecclesiastical reform, through all its various turns and windings, and saw it at last emerge upon the broad and firm platform of a total, or almost total, severance from the communion of the Romish Church. With the elevation of Laurentius Petri to archiepiscopal rank, as remarked at the close of our previous paper, there begins a new era in the ecclesiastical annals of Sweden. The extreme energy and ability of the youthful metropolitan—who, although young in years, was old in wisdom and in knowledge of the world—were required to consolidate the freshly-reared Protestant fabric, and impart to it the

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\* *British and Foreign Evangelical Review* for July 1867.

† Professor Anjou, it may be stated, is now, and has for some time been, bishop of the diocese of Wisby in Southern Sweden.

of a series of arches which supported another viaduct. Other four arches have been found standing to the west of this massive arch. They decrease in height as they go westward, and terminate in an arched passage or tunnel, 10 feet wide, which has been traced to a point 230 feet west of the temple wall. The arches of this tunnel are built upon others, which are supposed to have been used as tanks belonging to an immense and complicated system of reservoirs, passages, and aqueducts, which Mr Warren is endeavouring to unravel.

At a point 350 feet from the south wall, he has, by sinking a shaft through Ophel, come upon the continuation of the passage to which the "bottomless pit" led, at the foot of the deep excavation near the south-west corner of the Haram. At this point it still runs on southward. The interest of the work increases at every step, and the Christian world will surely not allow investigations so important to be abandoned for want of funds.

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ART. V.—*Mill's Reply to His Critics.*

**I**N reading lately the *Memoir, Letters, and Remains* of Alexis De Tocqueville, who has speculated so profoundly on the causes and consequences of national character, I was much struck with the following:—

"The ages in which metaphysics have been most cultivated, have in general been those in which men have been most raised above themselves. Indeed, though I care little for the study, I have always been struck by the influence which it has exercised over the things which seem least connected with it, and even over society in general. I do not think that any statesmen ought to be indifferent as to whether the prevailing metaphysical opinions be materialistic or not. Condillac, I have no doubt, drove many people into materialism, who had never read his book; for abstract ideas, relating to human nature, penetrate at last, I know not how, into public morals."

Had De Tocqueville's studies run in that direction, it would not have been difficult for him to unfold the causes of the phenomena which he has so carefully noted. These phenomena are three in number. First, a taste for philosophic speculation is a mark of an elevated age. It is the sign of a time which believes that there is as much above the surface of the earth, and beneath it, as there is on it; and is seeking successfully

or unsuccessfully to gauge the height of the heavens, in order to draw down influences from it; or to penetrate the ground, in the hope of discovering mines from which unseen wealth may be dug. The age which comprised Socrates, Plato, and Aristotle, in Greece; the age of Cicero in Rome; the seventeenth century in France, England, and Holland; the last part of the eighteenth and the first part of the nineteenth centuries in Scotland and in Germany, have been the peculiarly philosophic ages of these countries, and have been the times of deepest and brightest thought in all departments of literature and science. Whatever may be said against the age in which we live, it is clear that it is one in which the deepest speculative questions are discussed; and it is characterised by high literary attainment and boundless scientific and political enthusiasm. The second fact noticed is, that metaphysics exercise a mighty influence on the things least connected with them, in fact over society in general. This can be accounted for. Men's deep and abiding convictions,—religious, ethical, and philosophic,—when they have such, or the restlessness gendered in hearts emptied of all credences, and with pretended satisfactions rushing in on every side to fill the vacuum, exert a far greater power over them and their age, than outward circumstances or floating impulses. De Tocqueville recommends statesmen carefully to watch the philosophy of their day, which is always sowing seed to produce fruit for good or for evil in the age that follows. I may add that the friends of religion should also guard those springs out of which the streams of action flow. For De Tocqueville tells us, thirdly, that a materialistic philosophy penetrates into public, and I may add private, morals; and this among persons who never looked into a work on metaphysics. He refers specially to the Sensational philosophy of France, which exercised so fatal an influence on French character and politics, in the latter half of last century, giving a direction to public sentiment which culminated in the mad excesses of the French Revolution, and then sank into the stagnant indifference of the first Empire. When we look from this point, we see that we have dark days and fearful conflicts before us in France and in England: for we have a prevailing philosophy of quite an earthward a character and tendency as that of Condillac and the Encyclopædists; with qualities fitted to stimulate a wild enthusiasm; entertained by earnest and able men eager to propagate their opinions, supporting each other in important literary organs, and at the present moment buoyed up by the hopes of victory. Happily we have in this country (it is different, I fear, under the new Empire in France), many forces—unfortunately unconnected and distracted—to meet this, both in the high-toned philosophy which still lingers among us, and in a

fervent religion widely spread, and fitted, I think, to keep the materialistic psychology from attaining to so great a sway as it reached in last century, and may still reach in this, on the continent. But the contest in England is a very serious one—the religious public being quite unaware of its importance, and not likely to be aroused till they see the practical effects, when it is too late to avert them. Thinking men, however, feel that they have a part to act in this crisis. I am to introduce my readers to one of the skirmishes of the great warfare.

When Mr Mill published, in the summer of 1865, his *Examination of Sir W. Hamilton's Philosophy*, it was received with a shout of exultation by a considerable portion of the English press. I happen to know that some of the articles were written by young men, who began to study with the view of entering the church, but who were tempted aside by the spirit prevailing in the Universities, and are now on the London press, ready to attack on every occasion the old faith of the country. The only one of the laudatory criticisms likely to live, is the one by Mr Grote in the *Westminster Review*, and it will survive by reason of the eminence of the writer, rather than any very marked excellence of its own. The older and graver portions of the press sought to resist the tide. In January 1866, appeared an article in *Blackwood*, examining with care Mill's theory of the genesis of our idea of an external world. The *Edinburgh* laboured at a later date to meet some of Mill's positions. Dr Mansel, early in 1866, defended Sir W. Hamilton's doctrine of the conditioned, and his own applications of it, in acute and elaborate articles in the *Contemporary*. Dr H. B. Smith, in the *American Presbyterian and Theological Review* of the same date, undermined with great ability the fundamental principles of Mill's philosophy. Dr Calderwood, in April and July, submitted the sensational character of the philosophy to a rigid examination in this journal. There is an elaborate criticism in the *North American Review* for July of that year. In October, Mr Guy, a priest of the Church of Rome, offered important strictures in an article in the *Dublin Review*. Mr F. P. Mahaffy of Trinity College, Dublin, representing a very different interest, has, in his introduction to a translation of Kuno Fischer's *Commentary on Kant*, examined, from the standpoint of Kant, Mr Mill's doctrine of Permanent Possibilities and Necessary Truth.

Contemporaneous with these have been notices of a more favourable, though not at all of a thoroughly approving character. Professor Masson, it so happened, had been delivering at the British Institution, a course of lectures on *Recent British Philosophy*, and in these Sir W. Hamilton was the hero. Meanwhile, Mr Mill's *Examination* came out, and the Professor

in publishing his lectures, which, as a whole, are a sort of reflex of what the London literary men thought of metaphysicians in the year 1865, added an appendix commenting on Mill, full of laudations, as might be expected of such a hero worshipper, but endeavouring to meet some of his positions. Mr Herbert Spencer, though belonging substantially to the same school, wrote an article in the *Fortnightly* for July 1865, on the points in which Mill and he came into collision. Professor Fraser, the successor of Hamilton in the chair of Logic and Metaphysics in Edinburgh, in a long and elaborate review in the *North British*, thinks that Mill has not always understood Hamilton properly, but openly abandons two of the principles which Hamilton spent his life in defending,—our immediate knowledge of an external world and necessary truth; and retreats to an idealism nearly allied to that of Berkeley, and falls back on a faith of which he gives no clear account, and which I suspect would not long stand before the assaults of the sceptic. It is ominous that Mr Mill compliments him “as on the substantive doctrines principally concerned, a most valuable ally, to whom I might almost have left the defence of our common opinions.”

Meanwhile, separate works have appeared in answer to Mill. There is the *Battle of the Two Philosophies, by an Inquirer*, written very much from the stand-point of Hamilton; Mr H. F. O. Hanlon's acute criticism of *John Stuart Mill's Pure Idealism*, and an attempt to shew that if logically carried out it is pure nihilism; confined to one subject—M. P. Proctor Alexander, *The Examination of Mr J. Stuart Mill's Doctrine of Causation in relation to Moral Freedom*; and we may add a work not noticed by Mr Mill, *Mr J. S. Mill's Psychological Theory, by a Philosophical Conservative* (Mr Bleek).

I do not intend to comment on these articles and treatises. I would advise book collectors to get hold of them as long as they are to be had. They constitute a unique portion of the literature of the last two or three years. I have only one remark to make on them. I am not satisfied that Hamilton's pupils and disciples have given a defence of him, such as might have been expected of them. True, on one point, the philosophy of the conditioned, Dr Mansel has furnished a full reply, and those who wish to know Hamilton's philosophy, will always resort to these articles. But, otherwise, and on other points, the defence of Hamilton has been meagre and unsatisfactory. It is well known, indeed, to those who take an interest in these discussions, that I look on some of Hamilton's principal positions as untenable. I am convinced that he never did nor could reconcile what he took from Kant, with

what he retained from Reid ; that there was an utter incongruity between Kant's forms and Reid's common sense, though both were received by him ; that his doctrine of realism was not consistent with his doctrine of relativity ; and that he erred in identifying the *phenomena* of Kant with the *qualities* of the Scottish school. I am not satisfied that he has brought out all that is in the mind's idea and conviction in regard to the infinite ; I predicted that his doctrine of the relativity of knowledge would issue logically in a philosophy of nescience ; I hold that his constant appeals to consciousness are loose and illegitimate ; that he threw us back on an undefined faith in an unsatisfactory manner ; that his view of the relations which the mind can discover is narrow ; that he never understood what is the precise nature of what he calls the regulative faculty ; and that his theory of unconscious mental operations cannot stand a sifting investigation. Still, I do not believe that Hamilton has been guilty of all the monstrous inconsistencies and contradictions which have been attributed to him by his unsparing opponent. I cherish the hope that there will appear some pupil who feels it to be a sacred duty to defend his master, not alive to fight for himself, from charges which I am convinced could be met by one who has entered thoroughly into the spirit of his philosophy.

But I am in this article to restrict myself to a defined field. In the third edition of his work, Mr Mill replies to his critics. Dr Mansel has lately furnished a counter reply in the *Contemporary*. I am obliged to the editor of the *British and Foreign Evangelical Review*, for opening his pages to my defence. It is hoped that it may not be without its interest in the eyes of those who have a taste for such discussions, or who know how important the issues involved, and are aware that the new philosophy is to be met, not by empty declamation, but by argument. The combatants are now brought to very close quarters. We now see clearly what are the questions at issue. This article may thus form a sort of *resumé* of the whole controversy, not so far as it relates to Hamilton, but so far as it bears on what is more important, the fundamental truth which Mr Mill has assailed.

I require before entering on the discussion, to refer to one or two personal matters, these fortunately not involving any offensive personal feeling. I had spoken of Hobbes, Hartley, Hume, and Brown as Mr Mill's philosophic ancestors, and of Mr James Mill and M. Comte as having had influence on the young thinker, and of M. Comte as having led him to regard it as "impossible for the mind to rise to first or final causes, or to know the nature of things" (*Examination of Mill's Philosophy*, p. 8). I did so, because M. Comte, the great defender of that

doctrine, had expounded his views before Mr Mill had published anything. But Mr Mill tells us: "The larger half of my *System of Logic*, including all its fundamental doctrines, was written before I had seen the 'Le Cours de Philosophie Positive.' That work was indebted to M. Comte for many valuable thoughts, but a short list would exhaust the chapters, and even the pages which contain them" (p. 267). I suppose he means to include not merely his *System of Logic*, but the fuller exposition which we have in some of his other works, in which he has expounded doctrines identical with those held by M. Comte, and usually fathered upon him. He assures us, however, in regard to the general doctrine of Nescience, as I call it, he was familiar with it "before I was out of my boyhood, from the teachings of my father. Ever since the days of Hume that doctrine has been the general property of the philosophic world. From the time of Brown it has entered into popular philosophy." This statement does not differ essentially from mine, only it ascribes less to M. Comte and more to Mr James Mill, who is represented as teaching the doctrine to his son from boyhood. I leave this statement without comment, except that I must protest against representing Brown, who argued for the existence of God from the traces of design, as discarding either first or final causes.

Mr Mill admits (p. 319) "Dr M'Cosh's work is unimpeachable in respect of candour and fairness." I accept the compliment. I did intend to act fairly towards my distinguished opponent; and carefully abstained from quibbling and captiousness, when strongly tempted to indulge in it by what seemed the severe criticism of Mr Hamilton. Esteeming moral higher than intellectual qualities (so deified by Buckle and others of the school), I value this testimony higher than I would have done a laudation of my abilities. But the compliment is followed by a charge, that "he cannot be relied on for correctly apprehending the maxims and tendencies of a philosophy different from his own," and he complains that "he has not been able, even a little way, into the mode of thought he is combating" (p. 250). All I have to say here is, that if I have not been able to do so, it must be owing to some hebetude of intellect; for I was reared in favourable circumstances for understanding the system and its tendencies. Albeit some years younger than Mr Mill, I was brought up intellectually in a position not so widely different from those in which he was trained. The first professor of mental science who impressed me favourably, which he did by his cool intellectual power, was Mr James Mylne, of Glasgow University, who, following Destutt de Tracye, derived all our ideas from sensation, memory, and judgment. The first metaphysical work I read with

admiration, was the *Lectures* of Thomas Brown. At a prematurely early age, I had perused the philosophic works of Hume. I read James Mill's *Analysis* at the time it came out, and also Sir James Mackintosh's *Dissertation*, in which he attempts to resolve conscience into the association of ideas. I all along, indeed, had a suspicion that the refined analysis of these writers was far too subtle, and that they must be overlooking some of the deepest and most characteristic phenomena of the mind. Still, these were the men for whom, in my juvenile years, I had an admiration, rather than towards Reid, or even Stewart or Locke; and I believe I entered a good way into their modes of thought and their systems. But on mature and independent reflection, I had found my way out of their subtleties, and this before I knew anything of Hamilton, who turned the tide in public sentiment. At a time when the *Philosophie Positive* was known to few in this country, I read it with care, and I saw at once that it would come to be a power in this century, quite equal to Hobbes in the seventeenth and of Hume in the eighteenth centuries; and I noticed it in my first published work (*Method of Divine Government*, B. II. c. ii., Note D). On my first reading Mill's *Logic*, which was not for some time after its publication, I saw that the philosophy in which I had been brought up was involved throughout. The literary work on which I was engaged at the time when Mill's *Examination of Hamilton* came out, was an expository and critical account of Hume's philosophy for this *Review*, and intended to find a place in a contemplated work on the Scottish philosophy; and the book came out in time to enable me to bring out in a set of footnotes, the curious correspondence between the philosophy of Hume and that of Mill. I mention these things, to shew that I should be quite prepared to enter a considerable way into Mr Mill's mode of thought. But by painful cogitation I had wrought myself out of it, and believed I had discovered the fundamental fallacies of the whole philosophy. The one qualification which I possessed for the task of examining Mr Mill, lay in my having been trained in much the same school, and having risen above it; and I thought it right to give to the world, with an application to the very able work which appeared, the arguments which had convinced myself, and which I had expounded for years to my college classes.

Mr Mill is often alleging against those who oppose him, that they are not able to place themselves "at the point of view of a theory different" from their own. But has Mr Mill never put to himself the question, "May I not have fallen into the sin I have laid to the charge of my opponents? Have I ever thoroughly entered into and sympathised with that high-



souled philosophy which was introduced by Plato, which was continued by men like Augustine, Anselm, Descartes, Cudworth, Leibnitz, Jacobi, and Kant, and Cousin; and in a lower key, by Aristotle, Buffier, Reid, Stewart, and Hamilton?" I admire greatly the ability, dialectic and deductive, of Mr Mill. It is peculiarly a clear, a penetrating understanding; but it is not distinguished by wide sympathies and philosophic comprehensiveness. He does admire Plato and Coleridge; but it is because the former had so much of the search-spirit and the undermining dialectic; and because the latter was dissolving the old philosophy and theology of Britain. I am convinced that he has seen so many contradictions in Hamilton, because he could not always take into view the full sweep of his massive, but at times ill-constructed system. When he commends an opponent, as he does Hamilton often and Mansel at times, it is when he sees they are travelling towards the point which he himself has reached. It is surely conceivable that he may have been so filled with his own system, inherited from a beloved father, and cherished resolutely at the time when the tide was all against him, and that it may now bulk largely before his eyes, as to make him to some extent incapable of appreciating, or even thoroughly comprehending, those who look on things from a different point of view.

I do believe that because of my philosophic experience, I am able, at least, to look at both sides of the question. I claim to understand the "maxims" of this philosophy—except, indeed that I confess to a difficulty in apprehending how on his principles, he reaches the idea of extension, or a reasonable conviction of the existence of his fellow men. Possibly I may be able to judge of the "tendencies" of it as coolly and unpartially as those who have constructed it. He has himself characterised the Sensational philosophy of France, as "the shallowest set of doctrines which were ever passed off upon a cultivated age as a complete psychological system, the ideology of Condillac and his school; a system which affected to resolve all the phenomena of the human mind into sensation, by a process which essentially consisted in merely *calling* all states of mind however heterogeneous by that name" (*Discuss.* Vol. I. p. 410). But Condillac, as a philosophic thinker, a scholar, and a writer, was equal to Mr Mill, and was quite as acute in arguing against Descartes and Malebranche, as Mill is against Whewell and Hamilton, and had much the same kind of influence in France a hundred years ago, that Mr Mill is now exercising in England. I am convinced that Condillac had no idea that any evil consequences would follow from his philosophic theories. Most of his works were written for the purpose of training a prince of Parma; he believes that there is a God; "that the

laws which reason prescribes to us are the laws which God has imposed on us: and that it is here that the morality of actions is completed. There is, therefore, a natural law; that is to say, a law which has its foundation on the will of God" (*Traité des Animeux*, c. vii). I admit that the two systems, that of Condillac and that of Mill, are not the same; but it could be shewn that they have a much closer correspondence in themselves, and in their logical and practical consequences, than Mr Mill will be disposed to allow. Both derive our ideas from sensation, but Mr Mill takes credit for adding association, and says we get our ideas from sensation by association. But it can be shown that Condillac had not overlooked association. I find Dugald Stewart remarking, "Condillac's earliest work appeared three years before the publication of 'Hartley's Theory.' It is entitled, '*Essai sur l'Origine des Connaissances Humaine, Ouvrage où l'on réduit à une seul principe tout ce qui concerne l'entendement humain.*' This *seul principe* is the association of ideas. The account which both authors give of the transformation of sensations into ideas is substantially the same" (*Dissert.*, P. ii., S. 6). But the truth is, both had been anticipated by Hutcheson, who had expounded the general doctrine, and by Hume, who had used the doctrine of associations to account for beliefs supposed to be innate. Certain it is, that Condillac speaks of association of ideas which are the effect of a foreign impression, "Celles-la sont souvent si bien cimentées, qu'il nous est impossible de les détruire." "En général les impressions que nous éprouvons dans différentes circonstances nous font lier des idées que nous ne sommes plus maîtres de séparer." Mr Mill, will, I believe, be astonished to find here his father's law of Inseparable Association. Not only so, but he accounts by this law, like Mr Mill, for what is supposed to be *inné ou naturel* (see "Connaissances Hum.," c. ix). I doubt much whether Mr Mill is entitled to assume such airs in denouncing the sensational school of France. His ideas, generated out of sensation by association, do not differ so widely after all from the "transformed sensations" of Condillac. Both philosophies, when we trace them sufficiently far down, are found to rest on nothing more solid than sensations with their associations,—only Mr Mill is driven at times to bring in something inexplicable, of which nothing can be known. Let Mr Mill's philosophy have as long time to work as that of Condillac had, from the middle of last century to the French Revolution, and through the imperial sway of Bonaparte, and I believe that "sensation plus association" will not be found to have any more elevating effect on prevailing thought and sentiment than "transformed sensations" had—only I cherish the hope that in this country the tendency will

be counteracted by the higher philosophy and theology still abiding among us.

It falls in with the order of my examination to begin with his account of mind, which he had resolved into "a series of feelings with a back-ground of possibilities of feeling," requiring the farther statement that it is "a series aware of itself as past and future." He had acknowledged that this "reduces us to the alternative of believing that the Mind, or Ego, is something different from any series of feelings or possibilities of them, or of accepting the paradox that something which, *ex hypothesi*, is but a series of feelings, can be aware of itself as a series;" that his theory on this subject has "intrinsic difficulties, and that he is here face to face with a final inexplicability." He has told us (*Logic*, III. iv. 1), that "the question, What are the laws of nature? may be stated thus:—what are the fewest and simplest assumptions which, being granted, the whole existing order of nature would result?" Now I believe that the single and simple assumption to be made on this subject is, that in every conscious act there is a knowledge of self as acting, and in every remembrance of a past experience of self, as having had the experience. Here we are face to face with a final fact, which needs no explicability. But Mr Mill will not state it thus, and he is fitting round and round the point without alighting on it. He affirms that there "is no ground for believing that the Ego is an original presentation of consciousness." Now I admit that an abstract Ego is not given in self-consciousness; but the concrete Ego is—that is, the Ego as thinking, feeling, or in some other act. He allows, in his new edition, that he does not profess to have adequately accounted for the belief in mind." Let us see how he seeks to bear up his theory in the Appendix which he has added:—

"The fact of recognising a sensation, of being reminded of it, and, as we say, remembering that it has been felt before, is the simplest and most elementary fact of memory; and the inexplicable tie or law, the organic union (as Professor Masson calls it), which connects the present consciousness with the past one, of which it reminds me, is as near, I think, as we can get to a positive conception of Self. That there is something real in this tie, real as the sensations themselves, and not a mere product of the laws of thought, without any fact corresponding to it, I hold to be undubitable." "Whether we are directly conscious of it in the act of remembrance, as we are of succession in the fact of having successive sensations, or whether, according to the opinion of Kant, we are not conscious of self at all, but are compelled to assume it as a necessary condition of memory, I do not undertake to decide. But this original element, which has no community of nature with any of the things answering to our names, and to which we cannot give any name but its own peculiar one without implying

some false or ungrounded theory, is the Ego or Self. As such, I ascribe a reality to the Ego—to my own mind—different from that real existence as a Permanent Possibility, which is the only reality I acknowledge in matter." "We are forced to apprehend every part of the series as linked with the other parts by something in common, which is not the feelings themselves, any more than the succession of the feelings is the feelings themselves; and as that which is the same in the first as in the second, in the second as in the third, in the third as in the fourth, and so on, must be the same in the first and in the fiftieth, this common element is a permanent element. But beyond this, we can affirm nothing of it except the states of consciousness themselves."—(Pp. 256, 257.)

There are plenty of assumptions and admissions in this passage, far more than the defender of intuitive psychology is obliged to make. There is an "original element," to which he ascribes a "reality," and a real existence; a "permanent element," something common to the feelings, "which is not the feelings themselves"; the same in the first and fiftieth state of consciousness, and to which we can give no other name than the Ego, or Self. Now what is this but the permanent mind or Ego of the metaphysicians, with its various modifications, revealed by consciousness? I certainly do not stand up for the doctrine of Kant, according to whom we are not conscious of self, but are required to assume it as a condition. I prefer a much simpler doctrine,—that we are conscious of self in every mental act, conscious of self grieving in every feeling of grief, of self remembering in every act of memory. Admit this clearly and frankly, and I am satisfied. But I am satisfied because in this we have two great truths—that man knows, and that he knows real existence, that is, self, as existing. But the disciple of the doctrine of Nescience—that is, of the doctrine that we can know nothing of the nature of things—ever draws back from such a plain statement, as inconsistent with his favourite theory; and he talks instead of an "inexplicable tie," or "law," or "organic union," or "link to connect the facts,"—language which is metaphorical at the best, and never does express the fact, which is a very simple one, though full of meaning.

We are here at the place where Mr Mill is in greatest difficulties, and feels himself to be so. He tells us that "the one fact which the Psychological Theory cannot explain, is the fact of Memory (for Expectation I hold to be, psychologically and logically, a consequence of Memory)." I have shewn, I think, that he is for ever assuming, without perceiving it, other primordial facts; and that there are other facts equally entitled to be regarded as primordial, and, on the same ground, "no reason can be given for it which does not presuppose the belief, and assume it to be well-grounded." But let us specially in-

quire, What is involved in the assumption of memory? I had objected that Mr Mill was not able to give an account of the genesis of the idea which, as consciousness attests, we have of Time. Let us look at the account he now gives of the idea (p. 247), and then we shall be prepared to look at the way in which he generates it. He tells us that by Time is to be "understood an indefinite succession of successions." This does not make the matter clearer; the more so, as he has no things to succeed each other except sensations, which are only for the moment. "The only ultimate facts or primitive elements in Time are Before and After, which (the knowledge of opposites being one) involve the notion of Neither before nor after—i.e., simultaneous." I do not look on this account as a correct one of the facts of our experience. We get the idea of Time as a primitive fact in memory: we remember every event as happening in time past, and can then abstract the time from the event. I certainly do not give in to the principle that "the knowledge of opposites is one," for I hold that the knowledge of opposites is the knowledge of opposites—that is, of things opposed; and I do not allow that Before and After are opposites—they are rather continuous. But we are more interested to inquire, What account does he give of our idea and conviction as to this infinite Succession of Successions—this Before, and After, and Simultaneous? His answering is hesitating, and it is unsatisfactory. It brings out the weak points of the theory, and the awkwardness of the attempt made to bolster it up. He admits, "I have never pretended to account by association for the idea of Time." "Neither do I decide whether that inseparable attribute of our sensations is annexed to them by the laws of the mind or given in the sensations; nor whether, at this great height of abstraction, the distinction does not disappear." He admits that Time is the inseparable attribute of our sensations. He admits that we have the idea. We ask, Whence it comes? Let us look at the alternatives between which he hesitates. Our idea of Time "may be given in the sensations themselves." Observe how he is giving to the sensations a new and a totally diverse element, in the very manner of the school of Condillac. An idea implying indefinite successiveness—a Before and an After—all given in sensations, which we thought were confined to the present!! Surely this beats anything found in the "shallowest set of doctrines ever passed off upon a cultivated age," and "which consisted in merely *calling* all states of mind, however heterogeneous, by that name,"—that is, the name of sensations. If he take the other alternative, then he is giving to the mind the power of generating in the course of its exercise, a totally new idea—a view utterly inconsistent with his own empirical theory, and the very view of Leibnitz, who makes *intellectus ipse* a

source of ideas. No wonder that he seems unwilling to be fixed on either horn, and would fain mount up into some height of abstraction, where the distinction may disappear. But the facts do not lie in any great height of abstraction, but in the low level of our every-day consciousness, and can be expressed only by giving sensation its proper place, and time its proper place, both being equally primordial facts.

I now come to a more perplexing subject, in which I admit there is room for difference of opinion, though no room for that of Mr Mill—that is, the idea and the conviction which we have in regard to Body. As the conclusion of his subtle disquisitions, he had defined Matter as the Permanent Possibility of Sensation. In the added Appendix, he declares clearly that there is no proof that we perceive it by our senses, or that the notion and belief of it come to us by an original law of our nature; and that “all we are conscious of, may be accounted for without supposing that we perceive Matter by our senses, and that the notion and belief may have come to us by the laws of our constitution, without being a revelation of any objective reality.”

He admits (p. 245) that his opponents have referred his theory to the right test, in aiming to shew that “its attempt to account for the belief in matter implies or requires that the belief should always exist as a condition of its own production. The objection is true if conclusive.” But he adds, “they are not very particular about the proof of its truth; they one and all think their case made out, if I employ in any part of the exposition the language of common life.” I deny for myself that I have tried to make out my case by such an argument. I have indeed expressed a wish that he would “employ language consistent with his theory, and we should then be in a position to judge whether he is building it up fairly. I believe that any plausibility possessed by it is derived from his expressing it in common language, which enables him to introduce, surreptitiously and unconsciously, the ideas wrapt up in it. When he and Mr Bain speak of “a sweep of the arm,” and “a movement of the eye,” it is difficult for others, perhaps even for themselves, to think of the arm and the eye as a mere momentary sensations, as unextended, and as not moving in space. I was convinced that if the theory were only expressed in language not implying extension in the original sensation, its insufficiency would at once be seen. He has now, in a long appendix, laboured to construct his theory in language consistent with it, and the baldness of it at once appears.

My objection proceeded on a far deeper principle than the language employed by Mr Mill. I appealed to consciousness, not as Hamilton would have done, to settle the whole question

at once, but to testify to a matter of fact, which Mr Mill would admit to fall immediately under its cognisance. Consciousness declares that we have now an idea of something extended—extended on three dimensions, length, breadth, and depth, and, I may add, of extended objects moving in space. It is admitted, then, that we have this idea, and I defy Mr Mill to revolve this idea into any element allowed by him, in fact into any element not involving extension. He tells us that the whole variety of the facts of nature, as we know it, is given in the mere existence of our sensations, and in the laws or order of their succession. But from which of these does he get extension? Surely not from mere sensation, which, as not being extended, cannot give what it does not possess. As certainly not from laws or order in successive sensations, which, as they do not possess it individually, cannot have it in their cumulation, any more than an addition of zeros could give us a positive number. We have one more primordial fact, not only not accounted for by his theory, but utterly inconsistent with it.

We must examine his account of matter a little more narrowly. It is a possibility of sensations. Whence this dark background of possibilities which he cannot get rid of, which he cannot get behind, to which, indeed, he cannot get up? To account for the phenomena, he says, they come in groups, and by rigid laws of causation. Whence these co-existing groups and unvariable successions? Do they come in obedience to mental laws, say, to the laws of association? These laws are represented by him as being contiguity and resemblance. Do these create the groups and successions? I scarcely think that Mr Mill will assert that they do. I remember when travelling in the midst of a group of sensations called the Alps, thinking only of my wretchedly wet condition, I was suddenly startled by a group and succession of sensations such as I had never experienced before, and which I referred to an avalanche falling a mile off. Whence this effect? It was not produced by any volition of mine. Surely Mr Mill will not argue that it was produced by contiguity or resemblance, or any of the known laws of association. Whence, then? If he says something within me, then I say we have here a set of laws of a very curious and complex character, unnoticed by the theorist. But it can be shewn that the facts cannot be explained by laws within me. The law of cause and effect is, that the same co-existing agencies are followed by the same consequences. But I might be under the same group of sensations as I was when the avalanche fell, without the sounds which I heard following. Does not this require us to posit something out of the series of sensations to account

for the phenomena in the series; and this something obeying laws independent altogether of our sensations and associations. If we once posit such an external, extra serial, agency, we cannot withdraw it when it becomes inconvenient; we must go on with it, we must inquire into all that is involved in it by the laws of induction. This was the argument that convinced Brown—who, however, called in to guarantee it an intuitive conviction of cause and effect—that there must be an external world. Whether the argument is convincing, on the supposition that the belief in causation is not intuitive, I will not take it upon myself to say. I am not sure that the infant mind could arrive, in the midst of such complications, at a knowledge of the law of cause and effect. Finding many sensations not following from any law in the mind, it could not, I believe, reach a law of invariable succession. But then, it is said, it would refer them to something out of the mind. But with an experience only of something *in the mind*, how could it argue anything *out of the mind*, of which outness it has as yet no idea in the sensations or order of sensations? Would it not, in fact, be shut up in the shell of the Ego, and find in that Ego most of its sensations without a cause? Or rather would not an infant mind, endowed with only the powers allowed by Mr Mill, speedily become extinguished? But if it could live, and discover the law of cause and effect. As Mr Mill thinks, that law seems to require us to believe in an external something, obeying laws of co-existence and succession independent of the series of sensations, and we should have to take this with all its logical consequences. This gives us Matter not as a possibility of sensations, but an external something obeying laws of co-existence and succession, and the cause of sensations in us.

The theory would, after all, be utterly inadequate, for it would not account for the most prominent thing in our conception of matter, namely, that it is extended, which we could never argue, or apprehend, or even imagine, if we knew it merely as the cause of unextended sensations. I therefore reject it entirely. But the consequences I have sketched in last paragraph follow, if we adopt the theory. Under this view, I was entitled to point out an oversight in Mr Mill's account of the properties of matter, which he represents as being resistance, extension, and figure, thus omitting, I said, those powers mentioned by Locke, by which one body operates upon another. "Thus the sun has a power to make wax white, and fire to make lead fluid." When I said so I had entered a good way, notwithstanding his insinuation to the contrary, into the cloud of Mr Mill's mode of thought, farther, perhaps, than I was welcome. He now in replying to me (p. 248), is obliged to talk



of one group of possibilities of sensations, "destroying or modifying another such group;" and this certainly not by laws of sensation or association, but by laws acting independently of any discoverable cause in the series which constitutes mind. We have now got, by logical consequence, from Mr Mill's theory, a considerably complicated view of Matter, as a group of causes obeying laws of co-existence and unconditional succession, and one group influencing another, or destroying it, and all independent of any volitions of mine, or laws in my mind. The idea is, after all, inadequate, as it does not include extension, but it is certainly utterly inconsistent with his theory, that the notion and belief of Matter "may have come unto us by the laws of our constitution, without being a revelation of any objective reality."

This is confirmed by the language he uses in answering Mr O. Hanlon. He admits "that there is a sphere beyond my consciousness;" and "the laws which obtain in my consciousness, also obtain in the sphere beyond it." This, of course, refers to our conviction as to there being other minds as well as our own (p. 253). I am not sure that his argument for the existence of such minds is conclusive. "I am aware, by experience, of a group of Permanent Possibilities of Sensation which I call my body, and which my experience shews to be an universal condition of every part of my thread of consciousness. I am also aware of a great number of other groups, resembling the one that I call my body, but which have no connection, such as that has, with the remainder of my thread of consciousness. This disposes me to draw an inductive inference, that those other groups are connected with other threads of consciousness, as mine is with my own. If the evidence stopped here, the inference would be but an hypothesis, reaching only to the inferior degree of inductive evidence called Analogy. The evidence, however, does not stop here; for, having made the supposition that real feelings, though not experienced by myself, lie behind these phenomena of my own consciousness, which, from the resemblance to my body, I call other human bodies, I find that my subsequent consciousness presents those very sensations, of speech heard, of movements, and other outward demeanour seen, and so forth, which, being the effects or consequents of actual feelings in my own case, I should expect to follow upon those other hypothetical feelings, if they really exist: and thus the hypothesis is verified. It is thus proved inductively, that there is a sphere beyond my consciousness: i.e., that there are other consciousnesses beyond it; for there exists no parallel evidence in regard to matter." Now, I am not sure that an infant mind, with only the furniture allowed by Mr Mill, and without a knowledge

direct or by legitimate inference of body, and apart from an intuitive law of cause and effect, could conduct such a process. The actual attainments of every mature mind shew, by a legitimate inference, that there must be more capacities and inlets of ideas than Mr Mill supposes. But, passing this, let us examine the legitimacy of the process. There is first the difficulty, already urged, of getting out of the sensations which have no outness, to the conception of an "outer sphere." Then, is it not conceivable that the notion and belief in regard to other people's mind may have come to us by the laws of our constitution, without implying any objective reality? And if so, are we not by the law of parcimony shut up to a solitary egoism as the more philosophical theory? that is, I may look on myself as a series of sensations aware of itself, with possibilities of sensation in groups and successions, among which I place, what would be called, in the language I employ, my fellow creatures. No doubt, another hypothesis may be made, and seems to have its verifications; but the simple hypothesis, which explains all by the laws of my constitution, is to be preferred, if it explains the phenomena of other people's minds, as I believe it to do quite as satisfactorily as it does our notion of and belief in Matter. If we draw back from this, and stand upon the hypothesis and verification, then I urge that a like process requires me to postulate, that these groups of possibilities in my body and beyond it have an objective reality independent of me, and obeying laws of their own, and not laws of my constitution. Of the conceivable conclusions reached, Mr Mill's seem to me the most hesitating and incongruous. He must, I suspect, either logically remain for ever within the sphere of the Ego, with possibilities he knows not what; or, if he once go beyond it, he must include not only other minds, but material objects following laws independent of our subjective constitution or perceptions.

We have now to look at the attempts which Mr Mill has made to turn aside the force of the reported experimental cases which I had urged against him. To prove that the eye is immediately cognisant, not merely of colour, but of surface, I had adduced the case reported by Dr Franz of Leipsic, which Mr Mill seems never to have heard of before, though it was given in the Transactions of the Royal Society for 1841. A youth born blind had his sight restored at the age of seventeen; and when a sheet of paper, on which two strong black lines had been drawn, the one horizontal and the other vertical, was placed before him at the distance of about three feet, on opening his eye, "after attentive examination, he called the lines by their right denominations." What? asks Mr Mill. It is clear he called them horizontal and vertical, having got the

terms by his mathematical education, and knowing what were the things by the sense of touch. Mr Mill allows (pp. 287-290) that this case, if fairly reported, would require a considerable modification of his doctrine, and that it looks like an experimental proof, that something which admits of being called extension, "may be perceived by sight at the very first use of the eyes." But he tries to throw doubts on the accuracy of the report, evidently because it runs counter to his theory. It is a suspicious circumstance, he says, that the youth knew a cube and a sphere placed before him not to be drawings, of which he would have no idea—as if he could not have had some idea of what persons seeing meant by drawings, through the descriptions which they had given. And if there be any truth in the case at all, it is clear that the youth perceived at once vertical and horizontal lines, squares, circles, triangles, and the difference between the cube and the sphere. Mr Nunneley's case proves the same thing, the boy could at once perceive "the differences in the shape of objects," though he could not tell as to the cube and the sphere, which was which. It appears that in this case, it was some time before the boy could identify his perceptions of touch with those of sight. This is in accordance with what I have stated. The youth in Dr Franz's case could do it more rapidly than the boy in Nunneley's case, because the former had a mathematical training; but even he required examination and consideration, so that the two cases exactly correspond. There is nothing odd in the circumstance that Franz's youth could not form, from what he saw, "the idea of a square and disc, until he perceived a sensation of what he saw in the points of his fingers, as if he really touched the object;" for it was thus he identified the perceptions which he was now receiving with those which he formerly had. Mr Mill will only admit after all, that though the youth is reported as seeing lines, circles, triangles, yet this "does not prove that we perceive extension by sight, but only that we have discriminative sensations of sight corresponding to all the diversities of superficial extension;"—as if Hamilton had not demonstrated that discriminate sensations of colour imply the perception of bounding lines, and therefore of figure. I do not know if the history of speculative philosophy affords a more startling case of the determination of a theorist, not to found his theory on facts, but to twist the facts to suit his theory, which he is determined to adhere to at all hazards.

This may be the proper place for referring to the now famous case of Platner, which both Hamilton and Mill have been using, but which in fact helps neither, and perplexes both. Platner, without giving a detail of the facts, comes to the conclusion that "touch is altogether incompetent to afford us the

representation of extension and space, and is not even cognisant of local exteriority," and that a person born blind, could have no idea of extension. These observations do not agree with those of any other person I am acquainted with. Mr Mill was obliged to say, that Platner "had put a false colour on the matter, when he says his patient had no perception of extension." He now tells us that he does not agree with Platner that "the notions of figure and distance come originally from sight" (p. 280). But if Platner's case does not prove this, it proves nothing. I believe it does prove nothing. It is quite inconsistent with the simple experiments, which, with the aid of Mr Kinghan, I wrought on young children born blind. I have an idea that Platner was led astray by not distinguishing between the idea of extension, which is original both to sight and touch, with the power of measuring it, which is acquired. Mr Mill admits all that I claim, and all that Platner denies, "that a person born blind can acquire, by a mere gradual process, all that is in our notion of space, except the visible picture," that is, the colour in the picture.

To shew that we intuitively know our bodily frame as extended by the sense of touch, I had quoted at length from the cases adduced by Müller. According to that illustrious physiologist, we localise our affections received by the senses; and the law of our nature is, that in touch or feeling, we place the sensation at the spot where the nerve normally terminates. It is thus, I believe, that we acquire a knowledge of our frame as having one part out of another, and as extended. All this I hold to be original and intuitive, so strongly so, that persons who have their limbs cut off, have, ten or twenty years after, a sense of the integrity of the limb. Mr Mill says he can explain this by association of ideas. I deny that he can, for surely such a length of time was sufficient to destroy the old association, which had nothing to keep it alive, and to create a new one. He tells me that, according to my theory, the pain should have been felt in the stump. I believe, on the contrary, that after so long an experience without a limb, this should have been the case, according to Mr Mill's theory. My theory—no, not my theory, but Müller's—is, that there is an original law which leads us to localise the affection at the spot where the nerve in its healthy and proper action terminates. When, in the restoration of a nose, a flap of skin is turned down from the forehead, and made to unite with the stump of the nose, the new nose thus formed has, as long as the isthmus of skin, by which it maintains its connections, remains undivided, the same sensations as if it were still in the forehead. This, Mr Mill says, should not be, according to my theory, and there is a good deal of self-complacent chuckling over me, as if my

facts overthrew my theory. This implies a misunderstanding of the facts. According to the law, as I have expounded it, as long as the nerve is imbedded in the isthmus of skin taken from the forehead, it should be felt in the forehead. Mr Mill takes care not to quote the further fact, that is, "when the communication of the nervous fibres of the new nose with those of the forehead is cut off by the division of the isthmus of skin, the sensations are of course no longer referred to the forehead; the sensibility of the nose is at first absent, but is gradually developed." According to the association theory, the affection should have been felt in the forehead, not till the isthmus was cut, but till the old association was gone, and this, according to Mr Mill, might not have been for twenty years. Be it observed, that when the flesh is cut off from the forehead, and the nerve comes to have its normal position in the nose, the sensation is felt there. My theory is thus simply the expression of the facts. But whatever doubt there may be about these phenomena, there can be none about other facts which I have adduced. Whatever dispute there may be as to cases in which there has been an association formed between a limb once existing but now lost, there can be none as to persons who never had the limb, and in whose case the association could not have been formed, but who are reported as having a sense of it. Professor Valentin mentions cases which I have quoted, which shew, "that individuals who are the subjects of congenital imperfection, or the absence of the extremities, have, nevertheless, the internal sensations of such limbs in their perfect state." It is curious that Mr Mill has taken no notice of these decisive cases which I have adduced as setting the whole question at rest.

Mr Mill dilates on two cases, to which I have referred without attaching much importance to them. The shrinking of the frame when boiling liquid is poured down the throat, seems to shew that we localise the pain at a spot of which we cannot know the site by touch or experience. Mr Mill thinks the action purely automatic (p. 303). Now I am disposed to think that there may be an action of the will directed to the seat of sensation. I believe that at a very early age, and long before they have any acquired perceptions of locality, they will indicate vaguely the seat of the pain. My instance may not be the best, it is rather negative: "if a child is wounded in the arm, it will not hold out the foot." This should not be construed as meaning that the infant will systematically hold out its foot; for this would suppose that it has much more knowledge than it can yet have of mother or doctor watching it. But at an early age, there are apparently voluntary movements which enable the mother and doctor to discover the seat of the pain.

I agree with Mr Mill, "there are some difficulties, not yet completely resolved, respecting the localisation of our internal pains, for the solution of which we need more careful and intelligent observation of infants." The question is set at rest, not by such a case, which I am prepared to abandon, if disproven, without the least injury to my argument, but by the fact reported by Professor Valentin, which Mr Mill has declined to notice.\*

Mr Mill thinks that the eye originally gives us only colour and not extension. He does not allow—though the cases now adduced seem to prove it—that we have original perceptions of our bodily frame as affected. How, then, according to him, do we get the idea of extension? Following Dr Brown, he thinks that we get it by the sweep of the arm in space; and he quotes, with approbation, Professor Bain's method of working out this hypothesis. In my *Examination of Mill*, I endeavoured to meet this by psychological considerations, and shewed that a sweep of the arm or leg, considered merely as a group of sensations without extension, could not give us the idea of extension. I was not aware then that a German metaphysician, in examining the theory of Brown, had entirely disproved it by an experimental case. According to this theory, a person born without arms or legs could have no idea of space; but Schopenhauer has brought forward the case of Eva Lauk, an Esthonian girl, fourteen years old, born without arms or legs, but who, according to her mother, had developed herself intellectually quite as rapidly as her brothers and sisters, and without the use of limbs had reached a correct judgment concerning the magnitude and distance of visible

\* In a foot-note I had uttered a sentence in regard to a case quoted by Mill from Hamilton, who gets it from Maine de Biran, who takes it from a report of Rey Regis, in regard to a patient, who, though he retained a sense of pain, had lost the power of localising the feeling. I pronounced the case "valueless, as evidently the functions of the nervous apparatus were deranged." Mr Mill allows that this single case is not conclusive (p. 295); and with this I would have been satisfied, had he not gone on to argue from it that "localisation does not depend on the same conditions with the sensations themselves." Be it so; in the normal state, the nerves localise the feeling. "The patient, as he gradually recovered the use of his limbs, gradually also recovered the power of localising his sensations." I do not attach much importance to the following reports of the experience of insane persons; but they are worthy of being mentioned, as shewing how intimately our abiding perception of our bodily frame is bound up with the *skin sense* and its localising tendency. "A woman," whose case Esquirol tells, "had complete anaesthesia of the surface of the skin: she believed that the devil had carried off her body. A soldier who was severely wounded at the battle of Austerlitz considered himself dead from that time; if he were asked how he was, he invariably replied, that 'Lambert no longer lives; a cannon ball carried him away at Austerlitz. What you see here is not Lambert, but a badly imitated machine,'—which he failed not to speak of as it. The sensibility of his skin was lost."—Maudsley, *Physiology and Pathology of the Mind*, p. 242.

objects quite as quickly as they.\* Such a fact as this undermines the theory of the mode in which we gain our idea of extension, and with it the whole philosophic superstructure which Mill and Bain have been rearing with such laboured and ill-spent ingenuity. The cases adduced by Müller, and that reported by Franz, shew how it is we get our idea of extension; we get it by the immediate perception of our bodily frame in feeling, and, by means of the eye perceiving the coloured and extended surface before it. There is an impression among many that somehow Mr Mill and Mr Bain have physiology on their side. I confidently affirm that their peculiar philosophy is not supported by a single reported case, and that most of the reported cases are entirely against them.

I now turn to the discussion of a point of perhaps greater importance than any other started by Mr Mill's philosophy. It relates to the power of association to generate new ideas, and to produce belief,—in fact, to take the place of judgment or the comparison of things. It is, perhaps, the most fatal of all the errors in Mr Mill's speculations. It was on this account I dwelt so much on it—more than any other of Mr Mill's critics.

The two principal elements out of which Mr Mill generates all our ideas, are sensation and association. I have found fault with him for never telling us what is involved in sensation. We have seen in this paper that he is not sure whether time may not be involved in it—a view which would entirely change its nature. He never sees what is really involved in sensation, which is never felt, except a sensation of self. But I have a still greater complaint against him for never telling us precisely what association can do, and what it cannot do. He everywhere ascribes to it, in language derived from material action, a *chemical* power: two ideas coming together may generate a third, different from either of the original ones. This is making association a source of new ideas. In other words, he gives to mere association a power which the *a priori* philosophers have given to the intellect; and surely with much more justice, for even on the supposition that association is the occasion of the new idea, the new idea must proceed from some mental capacity joined with association. Mr Mill does not render any account of the law, and the limit of this power, supposed to be in association. It is a chemical power, but then the chemist can tell us what is the nature and

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\* My attention was called to this case by Mr Bleock, in his *Mr J. S. Mill's Psychological Theory*. It is quoted by Schopenhauer in his *Die Welt als Wille*, vol. ii. c. 4, and is taken from *Froriep's Neue Notizen aus dem Gebiete r Natur*, July 1838.

the law of the chemical power ; he says, Put one proportion of oxygen and another proportion of hydrogen in a certain relation, and water is the product. But Mr Mill never ventures to express any such definite law ; he leaves everything vague and loose. He finds certain peculiar ideas in the mind, such as those we have in regard to beauty and moral good ; and he satisfies himself with saying that they are generated by sensations and ideas, which have in themselves no such qualities. I see no reason which he has for claiming for his system of generalising ideas out of sensation by associations, such a superiority over Condillac's "transformed sensations."

I have denied that association is ever a source of new ideas. I have admitted that as the issue of "long and repeated" conjunction, ideas, each it may be with its own peculiar feeling, succeed each other with incalculable rapidity, so that we cannot distinguish between them, and that they may coalesce in a result." "But in the agglomeration there seems to be nothing but the ideas, the feelings, and their appropriate impressions coalescing ; there is no new generation—no generation of an idea, nor in the separate parts of the collection." At this point, Mr Mill meets me (pp. 342-3). He is obliged to concede that "facts in the case of ideas cannot be appealed to, for they are the very matter disputed." It clears the ground very much to have this admission. It is implied that there are new ideas generated by the action of the mind ; and Mr Mill ascribes to association what our profounder philosophers have ascribed to the intellect,—making their case more parallel to that of the chemists, who give to their elements a chemical power quite different from the mechanical. Not able to get proof from ideas, he says, "There are abundant instances in sensation."

"I had thought," he says, "that such an experiment as that of the wheel with seven colours, in which seven sensations following one another very rapidly, become, or at least generate one sensation, and that one totally different from any of the seven, sufficiently proved the possibility of what Dr McCosh denies ; but he writes as if he had never heard of the experiment" ; and he refers to the ribbon of light produced by waving rapidly a luminous body. Now, it so happens that I had produced the ring when a boy, by a lighted piece of paper ; in my college days, I had seen the experiment of the seven colours ; and, in my mature life, I have seen a wheel in rapid motion appearing stationary when made visible by instantaneous electric light. But I looked on these as experiments, not in regard to mental states, but simply about light, and the way in which it affects our bodily organs. The wheel under electric light looks stationary, not



as the result of successive sensations of motion, for we have not been percipient of the motion, but because we see it only for the instant. In the ribbon of flaming colour, the impression produced by each of the rays lingers for a certain short time, till the impression produced by those that rapidly follow mixes with it, and the figure on the retina becomes a continuous circle. In the same way with the seven colours, the organic affections mingle and become one, and are transmitted as one to the mind, which ceases to have a sensation of the seven colours, and has the sensation of one. This is not a case of seven separate mental sensations generating a new one. As long as the wheel with the seven colours rotates slowly, so that there is time for the one set of rays to disappear from the retina before the other overtakes them, there are seven sensations, but no eighth generated by the seven. If the wheel is seen by instantaneous light, seven colours are seen, but no eighth. Mr Mill has stated the facts precisely in an analogous case furnished by the sense of hearing (p. 618): "When a number of sounds in perfect harmony strike the ear simultaneously, we have but a single impression,—we perceive but one mass of sound." Mr Mill was bound to produce a case of two or more separate mental affections producing a new one never before experienced; and he has produced simply a case of the blending of rays of light in retinal or nervous action. Again facts fail him, and he is left with a baseless hypothesis.

This brings us to the consideration of the now notorious examples which he adduces of the most certain principles of arithmetic and geometry being believable in other circumstances: that is, in the possibility of our believing that  $2 + 2$  may be 5; that parallel lines may meet; that any two right lines being produced will meet at two points; and that two or more bodies may exist in the same place. These cases are taken from *Essays by a Barrister*, who did not profess to be a metaphysician, who did not know what to make of them, except that he thought they were fitted to lessen our assurance of the certainty of objective truth. Mr Mill now makes the following singular addition to his statement of the two first of these cases: "Hardly any part of the present volume has been so maltreated by so great a number of critics, as the illustrations here quoted from an able and highly instructed contemporary thinker; which, as they were neither designed by their author, nor cited by me, as anything more than illustrations. I do not deem it necessary to take up space by defending. When a selection must be made, one is obliged to consider what one can best spare" (p. 87). This is surely far from satisfactory. Does, or does he not, give up the cases? If he does, he should

have said so in all honesty, and nobody would have thought the less of him. But he seems still inclined to retain them as illustrations, but does not think it necessary to defend them. I do hold that Mr Mill's principles do lead to these consequences, which have staggered so many, and made them review the principles which lead to such results—implying that man can reach no truth which might not be falsehood in other circumstances. But as Mr Mill does not care to defend them, I do not feel that I am called to continue my assault.

"The geometry of visibles has been noticed only by Dr M'Cosh, who rejects it as founded on the erroneous doctrine (as he considers it), that we cannot perceive by sight the third dimension of space." This is not a full statement of the ground of my rejection. My language is, "These inferences can be deduced only by denying to vision functions which belong to it, and ascribing to it others which are not intuitive or original." I hold it to be one of the functions of sight to give us a right line and a curved line. Such cases as those of Franz clearly shew that by sight alone we can perceive two straight lines; and having once seen them, we never could be made to believe that they could meet at two points and enclose a space; or that a straight line being continued could return itself again. Those who see colours must perceive the boundaries of colours, and these being often curved, would give us the idea of a curved line; and I am sure they would be obliged to look on a straight line returning into itself as a curve, and not a right line. So much for his denying to vision functions which belong to it, which was my main argument. But again, he ascribes to it functions which are not intuitive or original: for I hold that it is not the function of vision, but of touch, to reveal to us impenetrability; and a creature with sight, but not touch (even if it could live or reason at all), could argue nothing as to bodies either penetrating, or not penetrating, each other, or passing through each other, 'without having undergone any change by this penetration.'"

In looking at these acknowledged consequences, I had ventured to point out the dangerous tendency of a doctrine which strips man of the power of reaching positive truth, and of pronouncing judgment on the reality of things. Because I have done so, he represents me as "preaching"; but preaching to one who is "already converted," "an actual missionary of the same doctrine." I am here tempted to remark, that Mr Mill himself "preaches" at times, as in those passages in which he charges Dr Mansel's doctrines as being "simply the most morally pernicious doctrine now current," and hurls at him that tremendous passage, "I will call no being good who is not what I mean when I apply that epithet to my fellow creatures ;

and if such a being can sentence me to hell, for not so calling him, to hell I will go." My preaching on this occasion has evidently had some effect; it has hit a point in which Mr Mill seems to be sensitively tender. I am convinced that he has never seriously weighed the logical and practical tendency of his doctrine of nescience; it looks as if there are times when he is unwilling to look at the consequences. He tells us that in his *Logic* he has been instructing his readers to form their belief exclusively on evidence. But did he never hear a preacher waxing longest and loudest on the points of his doctrine which he felt to be the weakest and most vulnerable? In regard to ordinary mundane matters, Mr Mill is very careful to bid us look for evidence; but the evidence, in the last resort, is found to be baseless, thus rendering the whole superstructure insecure in the estimation of all who are bent on looking beneath the surface. He corrects Mr Grote when he seems to say, that truth is to every man what seems truth to him; but his own doctrine is equally unsatisfactory when we follow it to its foundation. "We grant," he says, "that, according to the philosophy which we hold in common with Mr Grote, the fact itself, if knowable to us, is relative to our perceptions, to our senses, or our internal consciousness; and our opinion about the fact is so too: but the truth of the opinion is a question of relation between these two relatives, one of which is an objective standard for the other" (*Dissert.* vol. ii., art. Grote's Plato). That is, we are to have witnesses, but our conviction, nay, truth itself, leans on the deposition of witnesses, each of which supports the other, but each of which may be a liar. The earnest and logical mind is made to feel that in all matters bearing on the depths of philosophy, and the heights of religion, and fitted to bear it up above this cold earth, it has nothing left on which to lean.

In my *Examination* I had been at great pains to point out the ambiguity in the word "conceive," and the paronymous words, "conception," "conceivable," and "inconceivable." It is of essential importance, if we would avoid senseless logomachy, to determine the meaning in which we employ the phrase when we use man's power of conception as a test of necessary truth, or his incapacity of conception as a test of error. I distinguished three senses of the word: (1.) image in the phantasy, as when we picture Mont Blanc; (2.) the generalised notion, as "mountain"; (3.) native cognition, belief, or judgment, in regard to objects; and I shewed that it is only when used in the third sense that it can be legitimately employed as a test of truth. I shewed that it was not in this sense that Antipodes were supposed by our fathers to be inconceivable, but because they seemed to be contrary to experience,—a pre-

possession which gave way before farther experience. I am not aware that any one ever objected to Antipodes on the ground of a native cognition, belief, or judgment. I charged Mr Mill with taking advantage, of course unconsciously, of the ambiguity of the phrase. Any apparent success which he may have had in explaining necessity of conception by association, arises solely from his shewing how one image suggests another,—how, for instance, darkness suggests ghosts, or a precipice the danger of falling. I was quite aware that Mr Mill, in answering Hamilton, had shewn that the phrase had several meanings; but then, I asserted, that he himself was led astray, and was leading astray his readers, by the ambiguity. As my work was passing through the press, I observed, that in the sixth edition of his *Logic* (I., pp. 303–306), lately published, he had charged Mr Spencer as deriving “no little advantage” from the ambiguity, and alleges that the popular use of the word “sometimes creeps in with its associations, and prevent him from maintaining a clear separation between the two.” I simply noticed this in a foot note, and added that Mr Mill “continues to take advantage of the ambiguity, which is greater than he yet sees.” Mr Mill thinks this “curious” (p. 88). The note was hastily written, and I admit my meaning was not so clear as I have now endeavoured to make it.

The only subject remaining to be discussed is his defence of his own logical views, and his criticism of mine. He is pleased to say (p. 388) that “the chapter of Dr M'Cosh, headed the ‘Logical Notion,’ contains much sound philosophy.” But he complains of “the persistent impression which the author keeps up that I do disagree with him.” Now, I believe that our views do disagree, and I was anxious to point out the mistakes in a work which is of such value and influence as Mr Mill's *Logic*. Mr Mill is a nominalist, and looks at the name, its denotation, and connotation, instead of the mental exercise; whereas, I am a conceptualist (though, certainly, not in the sense in which many are), and have laboured to bring out the process of mind involved in the notion, judgment, and reasoning.

We differ in regard to the General Notion, or Common Term. I hold that every such notion or term has both extension and comprehension, or intension,—that is, both objects and attributes,—whereas, he looks solely at the comprehension, or the attributes. I had said, that I think it desirable to have a phrase to denote the class of things comprised in the general notion, and that the best word I can think of is Concept. In opposition to this, he says the word “class” is sufficient. But the word class is rather significant of an objective arrangement, existing independent of my notice of it,—say, of the class *Rosaceæ*, which had an existence in nature before naturalists

had observed it, or given a name to it. He admits, that in order to belief, "a previous mental conception of the facts is an indispensable condition," and "that the real object of belief is the fact conceived." Now, the word Concept stands with me, not for the class, but for the class conceived, and is the best I can think of. He has a glimpse of the truth when he speaks of extension (p. 421) "as a name for the aggregate of objects possessing the attributes included in the concept." He tells us (p. 372) "that concepts cannot be thought as being universal, but only as being part of the thought of an individual. Here, again, conceive, or "think," used in the sense of image; whereas it should be employed in the sense of judge. A Concept is a notion of an indefinite number of objects (extension) possessing common properties (comprehension), the notion being such as to include all objects possessing the common properties. It is thus emphatically universal.

We differ, also, in regard to Abstract Notions. "It is evident that the existence of abstract ideas,—the conception of the class qualities by themselves, and not as embodied in an individual,—is effectually precluded by the law of inseparable association." I acknowledge, that in the sense of "imaging," we cannot have a conception of an attribute apart from a concrete object. But, in the sense of "think of," we can apprehend a part as a part,—an attribute as an attribute; and this is what I mean by abstraction. I think it of great moment to distinguish between the abstract and general notions, which the Kantian logicians, German and British,—departing from certain older logicians,—everywhere confound. "Rationality" is an abstract term, denoting an attribute, and is different from "man," which is a general notion connecting objects. By drawing this distinction, and carrying it out consequentially, we throw light on logical judgment, and settle some of the questions discussed in the present day. There are, I hold, judgments in which we compare mere abstracts, and in which there is no general notion involved. Such judgments are always convertible or substitutive (called equipollent by certain older logicians),—that is, we can turn the subject into the predicate, and the predicate into the subject, without any change, which we cannot do in comparing universal notions. Because "men are mortals," we cannot say, therefore, "mortals are men;" but if "honesty is the best policy," we can say, "the best policy is honesty," because both terms are abstract.

I have represented Numbers as Abstract Notions, and the judgments involving them, as being convertible in consequence. Thus,  $3 \times 3$  being 9, we can say,  $9$  is  $3 \times 3$ . But Mr Mill says that the terms are general. "The objects embraced in 9 are nine apples, nine marbles, nine hours, nine miles, and all the

other aggregations of which 9 can be predicated. Every numeral is the name of a class, and a most comprehensive class, consisting of things of all imaginable qualities." Now, it was a disadvantage under which I laboured in criticising Mr Mill's "Formal Logic," that I was not able to expound my own views with sufficient fulness. But I have all along explained to my college classes that the same phrase may stand for an abstract and a general notion. I hold that numerals, 1, 2, 3, are primarily abstract qualities of things—a quality of that one thing, of these two things, or three things. It is because they are so that the propositions comparing them are convertible. But, then, we very often turn abstract names into general ones (as we also do general ones into abstract ones), and we do speak of 1, 2, 3 as standing for a class. We so employ them when we say, " $3 \times 3$  make 9," which we can only convert by saying "some things making 9 are  $3 \times 3$ "—for  $6 + 3$  also make 9. There is surely a profound distinction here with far-reaching consequences, but this is not the place for the farther development of it.

As not seeing that Extension, as well as Comprehension, is involved in all our general notions, and so in all our judgments involving general notions, Mr Mill has not been able, to give a clear account of the Proposition. He says (p. 420) "all men," and the "class men," are "expressions which point to nothing but attributes; they cannot be interpreted except in comprehension." Now, I have admitted that in the greater number of propositions the uppermost thought and sense are in comprehension, and I am represented as "having partially just conceptions on the subject." But I hold that in all judgments of the kind he is speaking of, there is thought in extension, and that they can be interpreted in extension, and have a meaning in extension. When I say, "Gorillas are not men," I mean are not included in the class men; and in many other propositions the uppermost thought is in extension. Of course, as the one implies the other, the proposition has also a meaning in comprehension.

This is the proper place for correcting a misapprehension of Mr Mill's, as to what constitutes the principle of identity, which, he thinks, should be expressed thus (p. 466): "Whatever is true in one form of words, is true in every other form of words which convey the same meaning." He applies this to what "Kant terms Conclusions of the Understanding, and Dr M'Cosh, Implied or Transposed Judgments." "They are not conclusions, nor fresh acts of judgment, but the original expressed in other words." But this is not an adequate account. The law of identity requires that the relation of the things compared should be considered the same, not merely

under different expressions, but in different circumstances, positions, and forms. It being given us that "all men have a conscience," we are sure it cannot be true that "no man has a conscience," or that "some men have not a conscience." These are not the same propositions expressed in other words; they would be felt to be true and implied, though not expressed in words at all.

There is one other logical point in which Mr Mill and I differ theoretically. I hold that in reasoning there is always thought in Extension; always a general principle involved constituting the major premises when the argument is fully unfolded. In his own Formula, there is a major premiss: "Attribute A is a mark of attribute B," which means, when properly interpreted, "Whatever object possesses attribute A has also attribute B," clearly a proposition involving Extension, nay, actually, thought of in Extension. It is only when we have such a generalised maxim that the particular case constituting the minor premiss warrants the conclusion. "The gorilla cannot speak," this cannot give us the conclusion, "the gorilla is not a man," unless we proceed on the general principle that "all beings placed in the class man are possessed of speech." So far as our views bear on the practical evolution of logical formulæ, I believe Mr Mill and I are at one. We both think that the old logical formulæ, which are in Extension, may be allowed to keep the place which they have had for ages; and we both think that Sir W. Hamilton has done good service to logic by shewing us how, when any good purpose is to be served by it, we may turn reasoning in Extension into the form of reasoning in Comprehension. I cannot agree with him, however, when he gives as a reason for allowing the reasoning in Extension to remain, that "concrete language requiring for its formation a lower degree of abstraction was earliest formed, took possession of the field, and is still the most familiar" (p. 484). I am not sure that thought in Extension is more concrete than thought in Comprehension. I hold that reasoning is spontaneously in Extension, and that it is thus that the forms assumed this shape, took possession of the field, and are still most familiar. When we argue that "the Red Indians are responsible because they are human beings," we put the major in the form, "human beings are responsible," not because "responsible" is more concrete than "possessing responsibility," but because we must have a general law, and put "all human beings in the class of beings possessing responsibility." The premises as propositions may be thought of primarily in Comprehension—the Extension however, being always involved; but in reasoning, the Extension involved must be actually thought of in order to give us the major proposition. The formula in Extension, in the ordinary

sylogistic analysis, is thus the expression, not of artificial but of spontaneous reasoning.

I have now faced Mr Mill at all the points in which he has seen fit to meet me.\* But I cannot close the discussion without referring to the points at which he has not deigned to meet me. I had said a good deal about his mode of procedure, and criticised his "Psychological Method," shewing how it should be adopted only with important explanations and modifications; in particular, that we are at liberty to proceed on this method only on the condition that we carefully look at all that is in the idea, and that we explain it all by the theory. Again, I had shewn that Mr Mill, while seeming to explain all our ideas by sensation and association, had been obliged to call in as many assumed metaphysical principles as Reid and Hamilton. I had collected his admissions into heads; I had shewn that they are utterly inconsistent with his apparently association theory; and that if logically followed out, they must carry him much farther than he is disposed to go. On none of these points does he offer a word of explanation. I had criticised his doctrine of causation, shewing that what he explains by experience is not our conviction as to cause and effect, but in the uniformity of nature. I had reviewed with considerable care his very defective account of mathematical axioms and definitions, and of demonstration. I had examined his genesis of our idea of moral good, and his whole utilitarian theory. I had invited him to say whether he thinks a conclusive argument for the existence of God could be constructed on his principles. It is curious that while he has seen fit to meet me on other points, some of them in no way essential to my argument, he has not noticed these all-important criticisms. I am perhaps not justified in arguing that my positions must therefore be unassailable; but it will, at least, be allowed that since no attack has been made upon them by my acute opponent, I am not required, for the present, to offer any farther defence.

JAMES M' COSH.

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\* I am glad he has called attention (p. 76) to my complaint of the vagueness of the distinction between knowledge and faith. He acknowledges that the distinction, as drawn by me, agrees with the cases to which I have applied it, and says that every definition of belief must include these cases. But, then, he sees a difficulty in carrying it through the entire region of thought. I am satisfied, if it holds good in the region in which I have employed it, that is, in regard to primitive cognitions in which the objects are present, and primitive beliefs, in which we are convinced of their existence, though they are not present. But even in other regions, it calls attention to the circumstance that in our very scientific knowledge there is belief involved—always, however, with other mental exercises, such as judgment.