**A new theory of knowing and known : with some speculations on the border-land of psychology and physiology / by John Cunningham.**

# A NEW THEORY

OF

# KNOWING AND KNOWN

WITH

## SOME SPECULATIONS ON THE BORDER-LAND OF PSYCHOLOGY AND PHYSIOLOGY.

BY

JOHN CUNNINGHAM, D.D.,

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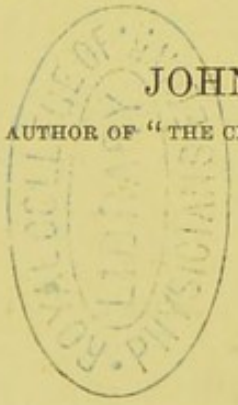

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# PREFACE.

I HAVE called the theory of knowing and known, explained in this book, "new," and yet it is not entirely new, to at least some readers. More than ten years ago I wrote for the *Westminster Review* (July 1862) an article on "Sir William Hamilton's Doctrines of Perception and Judgment," in which I foreshadowed my present opinions. But I did not then clearly perceive the truth myself in all its bearings, and I accordingly spoke hesitatingly, and, on some points, inconsistently. In an article in the *Edinburgh Review* (July 1866), on "Mr J. S. Mill's Examination of Sir William Hamilton's Philosophy," I was able to write with a clearer perception of the whole truth; and that article contains the outlines of the theory which occupies the main portion of the following treatise. But in writing that article I was confronted with a difficulty. The modern Idealists deny the existence of ideas as independent objective entities, and yet

maintain that the mind is conscious of ideas. It appeared to me that these two propositions could not both be held in their literal meaning, as the one is destructive of the other, and that, therefore, the one or the other must be held in a less or more figurative sense. It was plain that the first proposition could not be surrendered; and therefore, in my dilemma, I assumed, to some extent, that the modern Idealists could not hold the second in the strict meaning of the terms. It seems that in this I was wrong. I had the honour of receiving a letter regarding the article from Mr Mill—so esteemed in his life, so lamented in his death—in which, after some courteous introductory sentences, he said—

"I do not understand on what grounds you say that, in my opinion, and in that of Sir William Hamilton, the mind is not conscious of its own affections, understanding by its affections our sensations, thoughts, and volitions. Neither I nor Sir William Hamilton, as I understand him, nor any metaphysician, as far as I know, previous to yourself, ever held that the mind is not conscious of them.

"It has been thought that all the possible theories respecting the direct object of our consciousness had

been exhausted, but your theory seems to me to be new. The association doctrine resolves perception into sensation, but yours resolves sensation into perception; so that, if I understand you rightly, pleasure and pain are perceptions of something external to the mind. If I were to take the same liberties of language with your doctrine which you and many others use with the Idealistic theory, I should say that in your opinion pleasure and pain are in the outward object, and not in us. You say, indeed, that sensations are states of our mind. But the state of the mind, when we have a sweet taste, I understand to be, according to you, merely the state of perceiving something external and sweet. You have still to explain what we mean by calling anything sweet, unless that it gives us that particular sensation. And again, what do we mean by saying that sweetness is pleasant?" &c., &c.

I greatly value this criticism, for Mr Mill had a marvellous power of detecting the weakest points of any theory hostile to his own. I have kept it steadily before me in writing the following pages, and I have endeavoured to fortify most strongly the lines of defence which he regarded as most open to assault.

With the declaration of the great leader of modern Idealism before me, I have, of course, proceeded on the assumption that the Idealists of the present day hold, in the strictest and most literal meaning of the words, that the mind is conscious of its own sensations and ideas, although this seems to be in the teeth of their other teaching.

It is a small thing for a theory to be new; it is better if it be true. On this point, all I can say, in regard to the one I have here developed, is, that it has been the subject of my thoughts for many years, and is now the expression of my own firmest convictions. Here I must stop, and leave my reader to be my judge. I am aware I am attacking a system of philosophical belief which is almost as old as the world. I know the hazard, and scarcely venture to anticipate the result.

It may be found that I have occasionally employed phraseology not strictly in accordance with my beliefs; but it was difficult to avoid this, as almost the whole philosophical vocabulary is based upon the doctrine of ideas. There are several paragraphs, especially in Chapters IV. and V., taken almost *verbatim* from the articles above alluded to.

It was with hesitation, and even some degree of dread, that I ventured upon the borderland of physiology, as a land in a great measure unknown to me; but I have kept as far as possible upon the psychological side of the line, as there I felt my footing was surest; and when I have crossed it, as I could not help sometimes doing, it was always in company with a guide. It is quite certain that upon this debatable ground important discoveries are yet to be made. Phenomena which are at present perplexing every one may yet throw a new light upon a region which is at present lost in Egyptian darkness.

J. C.

Manse of Crieff,
1*st January* 1874.

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# THEORY

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## CHAPTER I.

### *INTRODUCTORY.*

THE Philosophy of Mind has engaged the attention of the ablest thinkers the world has produced; it is, moreover, no new philosophy; it has been a subject of earnest speculation for nearly three thousand years; and yet no one can honestly congratulate himself upon the progress it has made or the results it has accomplished. I do not refer merely to its having been barren of all practical utility. Unlike the physical sciences, it has not helped us to build our ships, or construct our machines, or dye our stuffs, or carry our messages; but I refer much more to the conclusions to which it has led—conclusions which are not only contradictory of the universally-held opinions of mankind, but amount to a negation of all existing things. It is not merely sceptical, it is dogmatically nihilist. And in truth this is the end toward which all such speculation has been irresistibly tending since the days of Pyrrho. The consequence is, that outside the schools of philosophy no one believes the doctrines which are taught there even by the greatest masters. They may be

very curious logical puzzles—like Zeno's proof of the impossibility of motion, or the demonstration that the swift-footed Achilles could never overtake a slow-footed tortoise, if the tortoise had a start of but ten yards of him—they can be nothing more. There must be a fallacy somewhere, though it may be difficult to detect it. Thus almost all philosophers, ancient and modern together, have shown convincingly (but who has believed them?) that nothing exists in the universe but—nothing. And this metaphysical dogma has recently been modified by another, equally well demonstrated, that something and nothing, existence and non-existence, are precisely the same; and thus our universe has been restored to us, or at least left in the limbo which forms the debatable land between somethingness and nothingness.

I venture to think there must be something radically wrong with a philosophy which has led to such conclusions, for philosophy should simply be the expression of the highest reason, and all reason revolts at these results. No man but a metaphysician believes the doctrines which metaphysicians have proved, and it may be doubted whether metaphysicians believe them themselves. And while it may be said, and has been said, that the metaphysician alone is the proper judge of such matters, every man will nevertheless presume to think for himself in regard to his own existence and the existence of the world around him. He cannot help having certain thoughts and beliefs in regard to such matters; and when the metaphysician finds himself in conflict with all mankind, this should lead him, at any rate, to reconsider both his premises and his conclusion, if not to reflect that he has placed himself in antagonism to the universal consciousness, which must be the ultimate arbiter of truth.

It is true the common herd may err through ignorance, or prejudice, or passion, but the most learned are not altogether exempt from these failings of humanity, and it is just possible

they may be wrong and the world right; for when an error has been consecrated by antiquity, and repeated by successive generations of the wise, when it has intertwined itself with the language of the learned among all nations, and become a part of their inheritance of thought, there is some danger of its being mistaken for a truth even by the inquiring philosopher. The fact is, the uninitiated are often nearer the truth than the learned, just because they are happily unacquainted with the traditions of learning. Every thinker knows how science as well as religion is apt to accumulate such traditions—some of them true, some of them false—and how frequently these are, without much inquiry, accepted as gospel.

From what has been said it must not be understood that I wish in matters of metaphysic to make an appeal from learning to ignorance, from thoughtfulness to thoughtlessness; but I think that when any opinion violently contradicts the deepest convictions of almost all mankind, and when mankind cannot be got to believe it, there is some reason to suspect its credibility, and when a thing is incredible, it can hardly be true. The physical sciences have flashed many strange truths upon the world, and the world was at first startled by them, but the world has come gradually to believe them. It was hard for the sixteenth century to believe that the sun was fixed immovably in the centre of the heavens, and that the earth was whirling unceasingly around it; but science produced its proofs, and the century believed. It was hard for the nineteenth century to believe that human words could be transmitted along a copper wire through the depths of the ocean and round the whole circuit of the globe, and in a time which may be said to be less than no time at all; but the thing was done, and the world believed. The cabman and the street-porter believed it almost as soon as the electrician. It was hard for any century to believe that there could be a people existing at our antipodes, living, moving, with their

feet towards ours, like flies on the ceiling in relation to the flies on the floor above ; but the thing is nevertheless accepted as a fact, even though it is difficult to realise it as a fancy. The conclusions of mental philosophy have fared differently. Berkeley and Hume, Fichte and Hegel, Hamilton and Mill, have reasoned even more powerfully than Copernicus, Galileo, Newton, Faraday, and Thomson, but their demonstrations have found no acceptance beyond the little circle of their own disciples. The world will not believe them—I suspect cannot believe them. In truth, it is only by a surrender of the laws of thought that we can receive the philosophy of thought. It is a pity that solemn doctrines should come to us in the guise of absurdities : no marvel they are generally turned at the door.

In the following chapters I am presumptuous enough to maintain that our whole mental philosophy is based upon a blunder ; and that it must be reconstructed from its very foundations. False in its first beginnings, it has been false through its whole history, and will be false to the end unless it retrace its footsteps, and start from different principles and on an entirely opposite track. More especially I venture to maintain that the whole doctrine of ideas is wrong—not only in its latest, but in its very earliest developments—and out of this has grown almost all the incredibilities of our modern metaphysic. One of the earliest lessons of philosophy was, that we are conscious of our own sensations and ideas. This doctrine has never been fairly challenged, and it is now universally accepted as a fundamental and almost self-evident truth. The last lesson of philosophy is, that we are conscious only of our own sensations and ideas, and have therefore no reason for believing in the existence of anything else. The latter of these doctrines has been logically deduced from the former : if the one be granted, the other must be granted also. Such is the short history of psychological speculation ; the one step

from faith to unbelief, from Realism to Nihilism. In opposition to these doctrines of the schools, I shall endeavour to show in the following pages, that in all consciousness the mind is never conscious of its own acts, affections, or modifications, but only of that which is not itself. I am aware that in enunciating a proposition so contradictory of all previous philosophical opinion, and apparently so paradoxical, I must not only crave the indulgence, but even beg the pardon of all philosophers; but still I hope before I have done to show that the proposition I have stated must be the basis of the philosophy of the future; and in the meantime I console myself with thinking that though all philosophers may be against me, the remaining portion of the world is already with me.

## CHAPTER II.

### *OLD THEORIES AND NEW.*

It is, as I have already said, a very ancient belief, that the mind is conscious only of what passes within itself, but this belief has assumed a great many different forms. Many of the old thinkers seem to have had a difficulty in understanding how the mind came into contact with external objects ; for they appear very early to have discerned what is now recognised as a truth, that there must have been some kind of contact before the one could be affected by the other. The Epicureans had their theory that all objects were incessantly throwing off filmy images of themselves, and that these *simulacra rerum*, floating about everywhere in the air, entered the mind, and gave it its pictorial knowledge of externality. The Peripatetics had their analogous doctrine of sensible and intelligible species, which were continually darting off from outward objects striking upon the passive intellect, and thus holding up to the mind, as it were, the mirror of nature. According to these theories, the mind in consciousness was not conscious of itself, neither was it conscious of an external world, but of a *tertium quid*—a something half spiritual, half material, which insinuated itself through the senses as a representation of the outside world. Des Cartes appears to have been the first to use the word idea to express the object of the mind in thinking ; but both he and his disciple Malebranche, and after them, in our own country, Locke and even Berkeley, appear to have regarded these ideas as something distinct

from the mind, and as forming the mind's object in thought. By these writers the use of this term received an authoritative sanction, while as yet the nature of ideas was not very clearly understood,* and very soon the idealistic philosophy developed itself. It is instructive to trace its progress. Bishop Berkeley argued that the ideas in the mind must be totally different from the properties of matter, and that therefore we could have no knowledge of a material world. Hume carried out this argument to its legitimate length, and proceeding on the assumption of Berkeley, that ideas are entities distinct from the mind, maintained that since we are conscious only of ideas and impressions, we can have no knowledge of mind any more than of matter; and why should we believe in the existence of that of which we can have no knowledge? This complete nihilism at which philosophy had arrived set Emmanuel Kant a thinking, and he elaborated the system contained in his "Kritik der Reinen Vernunft," by which he thought he would save the universe; but in that system there were the germs of the idealism which has since been developed in his country—an idealism more destructive of everything both in heaven and earth than anything which had been dreamed of by the Scotch philosopher. Kant held that we know only phenomena, and not noumena—appearances and not things—and even these only after they have been subjected to the forms of the sensibility. He believed in the external world, not because he was conscious of it, but only because he was forced to do so by the laws of his mind. This was enough for Fichte: he seized upon the fatal concession, and elaborated out of it his subjective idealism. In perception, he argues, there is indeed

* "Not knowing," says Locke with much *naïveté*, "how the ideas of our minds are framed, of what materials they are made, whence they have their light, and how they come to make their appearances." —*Inquiry*, p. 113.

present a perceiving ego and a perceived thing; but the ego only is known to consciousness, and the thing is a mere fiction created by the activity of the ego. Kant believed a non-ego, though he did not know it, because he was forced to do so by his mental constitution. Fichte argued, that as the non-ego was the result of mental law, the ego in effect created the non-ego. The ego and the non-ego were, in fact, identical. Man contained the universe in himself, and created it out of the depths of his own consciousness. Hence a philosophy of the absolute became possible—became, indeed, the only true philosophy. Hegel, following in the footsteps of Schelling, endeavoured to find a something higher than either the ego or the non-ego, higher than either thought or being, in which both might be reconciled; and he thought he had found it in what he called the idea. This idea is the God of Hegel, the source of all things created and uncreated. It comprehends everything, and yet is nothing. It is not an existence, but only a process, a becoming; without beginning or ending; without properties; a thing in which all contradictories are reconciled; the absolute, and yet not the absolute in itself, for it constitutes itself only in springing from itself, and returning to itself after having been other than itself. Such is the last and highest development of idealism in Germany. It is a philosophy which passes all understanding, and so far as it can be understood, it seems to the non-Hegelian mind to be simply absurd—a meaningless jargon of words, and an unwarranted assumption of principles, which are not, and cannot be proved. But this condemnation of a system must not be understood as detracting from the majestic though mystic genius of Hegel, who is undoubtedly one of the giants of the metaphysical world. It is grand to see the fine streaks of light which break through the thick darkness in which he usually envelops himself; to mark the great rugged truths which occasionally stand out amid his

mysticism as the solid everlasting hills stand out from the stupendous but evanishing ranges of cloud-mountains behind them.

The recent philosophy of our own country, which is based upon the doctrine of ideas, has been almost equally paradoxical as that of Germany. Sir William Hamilton, indeed, made an effort to escape from conclusions which he felt were nonsensical, but he was unable to free himself from an idealism which, like the seed of the thistle, sticks to his mantle and refuses to be brushed off; and he has multiplied contradictions instead of removing them. He taught, or seemed to teach, that in perception we are conscious of the outer world, and this was a step in the right direction; but he maintained that in the same act we are conscious also of the percipient mind, which is not only contrary to experience, but is the very error which is the source of all other errors, and must be rooted out before philosophy can be right. And if Hamilton has made a feeble effort to emancipate himself from idealism in his doctrine of perception, in his doctrine of memory he has entirely resigned himself to it. Unlike Hamilton, Mr John Stuart Mill has no desire to rid himself of idealism, he glories in it as the only true philosophy, and is happy in believing that there is no matter, no mind—in short, nothing; and his only concern as a philosopher is to explain how all the world see that which they do not see, and touch that which they do not touch, and believe in the existence of that which does not exist, and he does this by his theory of the Permanent Possibility of Sensations and Ideas. The only true universe is this Permanent Possibility —this shadow of a shade—this abstract word signifying nothing.

The Positive Philosophy, though it pretends to be based, above all other philosophies, upon what is positive and real, has yet received into its system idealism in its purest forms.

In truth, it must be told that the whole philosophical world is now as entirely given over to ideas as the whole religious world was once given over to idols; and the result is, that nothing but ideas has been left in the universe. The new gods, like the ancient ones, have dethroned their parents, and they now reign solitary and supreme. There was something fitting in Hegel identifying his "idea" with divinity.

"Ideas," says Dr Reid, "seem to have something in their nature unfriendly to other existences. They were first introduced into philosophy in the humble character of images or representatives of things; and in this character they seemed not only to be inoffensive, but to serve admirably well for explaining the operations of the human understanding. But since men began to reason clearly and distinctly about them, they have by degrees supplanted their constituents, and undermined the existence of everything but themselves. First they discarded all secondary qualities of bodies; and it was found out by their means that fire is not hot, nor snow cold, nor honey sweet, and, in a word, that heat and cold, sound, colour, taste, and smell, are nothing but ideas or impressions. Bishop Berkeley advanced them a step higher, and found out, by just reasoning from the same principles, that extension, solidity, space, figure, and body are ideas, and that there is nothing in nature but ideas and spirits. But the triumph of ideas was completed by the 'Treatise of Human Nature,' which discards spirits also, and leaves ideas and impressions as the sole existences in the universe. What if at last, having nothing else to contend with, they should fall foul of one another, and leave no existence in nature at all?" *

Strange to say, it has been actually so! The ideas of the philosophers, like the cats of Kilkenny, have wholly devoured one another, and now there is left only their Permanent Possibilities.

* Inquiry, chap. ii. sec. 6.

## CHAPTER III.

### *CONSCIOUSNESS AND ITS OBJECT.*

From the rapid sketch which I have given of idealism, it will have been observed that till a recent period it was the common if not universal opinion that the mind's object in thought was something different from the mind itself. The species, phantasms, and images of the ancient world were independent entities, quite distinct from the thinking mind. The ideas of Des Cartes, Malebranche, Locke, and Berkeley were entities too—somewhat more spiritual, perhaps, than their ancestral phantasms—but distinct from the mind in which they were supposed to reside. Hume's argument for the non-existence of mind, in his "Treatise of Human Nature," proceeds upon the same assumption; for unless he had assumed that the mind, when conscious of ideas and impressions, was not conscious of itself, he could not have maintained that we have no proof of the mind's existence. If we are conscious of the mind, we have the evidence of consciousness that the mind exists. But all psychologists are now agreed that this belief was false and unfounded. Sensations and ideas are nothing but modifications or states of mind; or still more correctly, they are nothing but the mind in certain states or moods. What we call the sensation of sight is nothing but the mind seeing; what we call the idea of colour is simply the mind remembering some shade of light. There is no such thing as a sensation or an idea apart from the mind which perceives or thinks; these abstract terms assume reality only when they are referred to the concrete mind. This is

not only clearly true, but it has been clearly seen to be true by all the writers of this century—Brown, the two Mills, Hamilton, Bain, and a host of others. "An idea," says Brown, "is nothing more than the mind affected in a certain manner, or, which is the same thing, the mind existing in a certain state. The idea is not distinct from the mind, or separable from it in any sense, but is truly the mind itself." "When I smell a rose—that is to say, when certain odorous particles act on my organ of sense—a certain state of mind is produced, which constitutes the sensation of that particular fragrance."* "There is not the sensation of colour in addition to the mind, nor the sensation of fragrance in addition to the mind; but the sensation of colour is the mind existing in a certain state, and the sensation of fragrance is the mind existing in a different state."† "Consciousness," says Sir William Hamilton, "is the recognition by the mind or ego of its own acts or affections," ‡ and under these mental acts or affections he includes sensations and ideas. We may therefore now register it as the universal opinion of philosophers that, properly speaking, there is no such existence as a sensation or an idea. All that we mean when we use these words is, that the mind exists in a certain state, or is affected in a particular manner when an object of sense is presented to it, or, by memory, recalled to it. We must keep this fact steadily before us in all our future reasonings, for we shall soon have abundant occasion to remark that while philosophers have openly denied, disowned, and denounced sensations and ideas as independent existences, they have nevertheless proceeded upon the assumption that they are independent existences in almost all their reasonings. Having got rid of ideas, we should have got rid of idealism; but, curiously enough, we have now a race of idealists who do not believe in the existence of ideas.

* Lecture xxv. † Lecture xxiv. ‡ Lecture xi.

Another doctrine akin to that which I have mentioned, and equally to be had in remembrance, is that all thought—every sensation, idea, feeling — implies consciousness. Thought without consciousness is a contradiction in terms. Thought is consciousness. It is curious that Reid, notwithstanding his usual sagacity and good sense, did not see this clearly. Both he and his disciple Dugald Stewart speak of consciousness as a separate faculty of the mind, of which the mind's acts and affections were the objects, just as light is the object of vision. "It is an operation of the understanding," says he, "of its own kind, and cannot be defined. The objects of it are our present pains, our pleasures, our hopes, our fears, our desires, our doubts, our thoughts of every kind; in a word, all the passions and all the actions and affections of our own minds, while they are present."* In this there is a double blunder. In the first place, he virtually surrenders his own doctrine of external perception, by asserting that consciousness extends only to the internal feelings and affections of the mind, for how can we know the outer world if we do not consciously know it? and in the second place, he does not understand that thought is just a form of consciousness, and therefore does not require a separate faculty to make it what it already is. "Sensation," says Dr Brown, who is undoubtedly one of our best mental analysts, "is not the object of consciousness different from itself, but a particular sensation is the consciousness of the moment; as a particular hope, or fear, or grief, or resentment, or simple remembrance, may be the actual consciousness of the next moment."† "To say I feel a sensation," argues Mr James Mill, "is merely to say I feel a feeling, which is an impropriety of speech. And to say that I am conscious of a feeling, is merely to say that I feel it. To have a feeling is to be conscious, and to be

* Essay vi. chap. v. † Lecture xi.

conscious is to have a feeling." * "Consciousness," says Hamilton, "is the fundamental form, the general condition of all thinking. Consciousness is not to be regarded as aught different from the mental modes or movements themselves." † In truth, to make the mind's affections the objects of consciousness is to double the mind, and to make one part of it the object of the other's observation. We have thus identified —1st, sensations and ideas with the mind ; 2d, consciousness with sensations and ideas. We must ever keep these two conclusions steadily before us.

And now comes the question—In consciousness of what are we conscious ? in other words, What are the objects of our consciousness ? The uniform answer to this question is, That the mind is conscious of its own acts and affections ; that consciousness has for its objects, sensations, ideas, emotions, desires. But, in the face of the conclusions we have arrived at, how can this be ? We have seen that consciousness is identical with thought ; how, then, can we speak of the *one* as being the object of *the other*. We have seen, moreover, that there is no such things as sensations and ideas, properly speaking—that these words only indicate the existence of the mind in certain moods ; how, then, can the mind be said to be conscious of the mind, and of nothing but the mind ? But as we have now reached the real point at issue, we must look at it in all its aspects.

The mind, it is said, is conscious of its own acts and affections. Now, by a mental act or affection is simply meant the mind acting or affected in some particular way. When it is said, then, that the mind is conscious of its own acts and affections, it is affirmed that the mind is conscious of the mind.‡ Are we so conscious ? Is our own mind the imme-

* Analysis of the Human Mind, i. 170–2.

† Discussions on Reid. Lecture xii.

‡ Professor Calderwood clearly sees this. Referring to Sir William

diate object of all our knowledge? The general belief is, that the mind mysteriously veils itself from view and eludes all observation. We see objects around us on every side, but the mind is unseen, unfelt—I might almost say unknown. Spirit escapes all cognition, so that we cannot form even any conception of what spirit is. How is this? If the mind be the direct object of knowledge, we should know all about it; but, in truth, we know nothing. We dissect the brain, and find nothing but grey matter and white. We scrutinise consciousness, and find nothing but outward things—tables, chairs, books, trees, mountains, and much other miscellaneous furniture of a like kind. Our senses do not reach the soul, for no one would say it is the object of sight, or touch, or any other sense; and besides these and memory there is no other form of consciousness. Like the ancient divinities, it sits in the innermost recesses of the sanctuary, amid impenetrable and everlasting darkness.

But it may be said, though we are not conscious of the mind itself, we may be conscious of its varying moods. But to that the easy answer is, that a mental mood is nothing but the mind in a particular mood, and that therefore to be conscious of a mental mood is to be conscious of the mind. If it be argued that we may be conscious of a mental mood without being conscious of the mind itself, just as we may be cognisant of the properties of matter without being cognisant of matter itself, I deny the possibility of such knowledge either in the one case or the other. It is true almost all metaphysicians have spoken as if we could know, and in fact did know, the properties of matter without knowing matter itself, but this is little better than a contradiction in terms. For the properties of matter are nothing different from the matter itself.

Hamilton's definition, and correcting it, he says, "Rather it is the recognition by the thinking subject of *itself*, and its own acts and affections."—*Handbook of Moral Philosophy*, p. 4.

Matter may be known to us under a great variety of modes and limitations, and these we call its properties, but in every case it is the matter itself so conditioned and limited which we know. This simple but forgotten truth will be more fully exhibited and proved afterwards; at present I merely assert that the illustration drawn from matter does not help the idealist out of his difficulty when he asserts that we may be conscious of the mind's moods and movements without being conscious of the mind itself. A mood, a movement, is nothing apart from the substance in which it exists. If we are conscious of a mental mood or movement, we must be conscious of the mind.

The difficulty of believing that in all consciousness the mind is simply conscious of itself, is increased by the fact that in such a case the act of consciousness must be identical with the object of consciousness. The perceiving is the same as the being perceived, which is a contradiction in terms. In the one indivisible act of knowledge the ego both knows and is known, and the knowing is the being known. According to this theory, and in contradiction of our deepest convictions, in every act of perception the mind simply perceives itself so perceiving. Subject and object are thus confounded, and all the ordinary meanings attached to words are overturned.

But the theory of consciousness upon which I have been commenting virtually amounts to a division of the mind into two parts, one part taking cognisance of the other. It implies a second act of consciousness to take note of the first; for the identification of the knowing and the being known implies a contradiction and an incredibility. Both Sir William Hamilton and Mr John Stuart Mill appear to have had some dim perception of this, and they try to guard against it. "From the definition of consciousness," says Mr Mill, "as the recognition by the mind or ego of its own acts or affec-

tions, our author" (Sir William Hamilton) "might be supposed to think (as has actually been thought by many philosophers) that consciousness is not the fact itself of knowing or feeling, but a subsequent operation by which we become aware of that fact. This, however, is not his opinion. By the mind's recognition of its acts and affections he does not mean anything different from the acts and affections themselves."* But the question here arises, How can the recognition of acts and affections be the same as the acts and affections which are recognised? how can things which are essentially different be made identical? It is, indeed, easy to say that they are identical, as is done by both Hamilton and Mill, as it is easy for Hegel to say that contradictories are identical; but it is not so easy to show how this can be; and neither Hamilton nor Mill has attempted it. In fact, as the object known must be different from the knowing of it, the older idealists were driven to the hypothesis of ideas being something different from the mind. When Reid abandoned this hypothesis, he was obliged to resort to the other one, that consciousness was a specific faculty, taking cognisance of all mental affections. When Brown, in his turn, refuted this hypothesis, and showed that the mind must be one and indivisible in all its acts, he in fact demonstrated that in consciousness the mind cannot be cognisant of its own moods—that it cannot in the same indivisible state be at once the knower and the known, the subject and the object of knowledge.†

* Examination of Sir William Hamilton's Philosophy, chap. viii.

† I am almost ashamed to confess that it was not till the spring of 1873, after the whole of the text was written, that I read for the first time Mr Herbert Spencer's "Principles of Psychology," and was delighted to find there an argument upon this point almost identical with that here used. "That which thinks can never be the object of direct contemplation, seeing that, to be this, it must become that which is thought of, not that which thinks. It is impossible to be at the same time that which regards and that which is regarded." This is very well put, but he spoils it by saying, "It is impossible for any one

His language is worth quoting, for, as I have already said, few metaphysicians have exhibited greater powers of analysis

to know he has a sensation without self-consciousness becoming an element of his thought. Self-consciousness, however, can never be known immediately, but only by recollection. No one can be conscious of what he is, but only of what he was a moment since." In answer to this it is enough to say, that if self can never be known, it can never be remembered, for we remember only what we formerly knew. But elsewhere he argues again convincingly for the truth I have stated in the text: "Let him contemplate an object—this book, for instance. Resolutely refraining from theorising, let him now say what he finds. He finds that his consciousness is filled with the existence of the book. Does there enter into this state of his consciousness any notion about sensation? No. . . . So long as he refuses to translate the facts into any hypothesis, he feels that he is conscious of the book, and not of an impression of the book—of an objective thing, and not of a subjective thing. He feels that the sole contents of his consciousness is the book considered as an external reality. He feels that the recognition of the book as an external reality is a simple indivisible act. . . . A yet stronger reason for asserting that the subject is not postulated in perceiving an object is that the subject can itself become known only as an object. By his division of our perceptions into those of the object-object and those of the subject-object, Sir William Hamilton himself implies that all the things perceived by consciousness must be relatively objective; and that hence self-consciousness is possible only by regarding self objectively. This must be admitted whichever view be espoused respecting the nature of the ego. . . . Hence, to say that consciousness of subject and object is simultaneous, is to say that in perceiving one object we necessarily perceive another." Again, "No one can form any conception of the representative hypothesis without abandoning his first centre of consciousness, in which he is simply percipient, and taking up another position from which to inspect the act of percipience. A spectator gazing at a fire is simply conscious of the fire. If you tell him he cannot know the fire, but merely his impression of a fire, he can value your meaning only by regarding both the fire and himself as objects, and observing how the one affects the other." (Chapter iii.) All this is excellent, and shows that Mr Spencer had in his hand the key by which he might have opened the door of the well where the truth lay hid. But his system led him away from the recognition that the mind never is, and never can be, conscious of itself. He has used what is really a most precious stone simply as a common brick in the structure of his edifice; or rather as a brickbat to break the head of Berkeley and Hume.

than Brown, though many may have reasoned with greater learning and force.

"When we say, I am conscious of a particular feeling, we are apt to separate the sentient I and the feeling, . . . as so radically different as to justify our classing the feeling in the relation of an object to that sentient principle which we call I, and an object not in retrospect only, as when the feeling is remembered, or when it is viewed in relation to other remembered feelings, but in the very moment of the primary sensation itself; as if there could truly be two distinct states of the same mind at the same moment, one of which states is to be termed sensation, and the other different state of the same mind to be termed consciousness." * "It would be manifestly absurd to suppose the same indivisible mind to exist at the very same moment in two separate states, one of sensation and one of consciousness."†

If this be true—and most people will agree that it is—sensation, being identical with consciousness, cannot be its object; in other words, we cannot be conscious of sensation. When he protests that we must not separate the sentient I from the conscious feeling, as if they were subject and object, he unwittingly yields up the point at issue; for, according to the usual meaning of words, we know a thing only when it is the object of our knowledge. Thus, in refuting Reid, Brown has refuted himself, and in demonstrating the identity of consciousness and ideas, shown that to speak of the one taking cognisance of the other is a contradiction in terms.

But it is right that Dr Brown should be allowed to state for himself what he conceives takes place in the act of consciousness. "I am conscious of a certain feeling," says he, "really means no more than this: I feel in a certain manner, or, in other words, my mind exists in that state which constitutes a certain feeling." ‡ Here the opinion of the

* Lecture xi. † Lecture xii. ‡ Lecture xi.

school to which he belongs is very clearly and skilfully put. "I am conscious of a certain feeling, simply means I feel in a certain manner." But can we feel in a certain manner without feeling something? and if we do not feel the feeling, what do we feel? To feel nothing is to have no feeling. "My mind exists in that state which constitutes a certain feeling." But is a feeling possible where nothing is felt? If we feel, we must feel something; and as that something cannot be the mind, since the mind is simply the feeler, it must be something outside of it.

The web of delusion in which even the ablest thinkers have entangled themselves in regard to this matter has been in a great measure created by the tendency which we have to separate ourselves from our own minds, with all their varying moods and activities, and to regard the one as contemplating the other. "I am conscious of a feeling." Here it is the "I" which is conscious, and the "consciousness" is the "feeling;" so that the "I," the "consciousness," and the "feeling" are identically the same thing; and therefore, in such a proposition, nothing is told; there is a subject without an object; in fact, when it is nicely analysed, it is no better than an absurdity. "All which we know, or can be supposed to know, of the mind, indeed," says Dr Brown, "is a certain series of those states or feelings that have succeeded each other, more or less rapidly, since life began—the sensation, thought, emotion of the moment being one of those states, and the supposed consciousness of the state being only the state itself."* Here our philosopher is at great pains to explain to us that the consciousness of the state is just the state itself; but in the very same breath he speaks of "us" as knowing these "states," thus unwittingly splitting them asunder, and regarding them as knower and known, though the state of the moment is just the ego of the moment (or at least a con-

* Lecture xii.

stituent part of it), and therefore it is absurd to speak of the one knowing the other.

But while Brown, Hamilton, and Mill concur in declaring that our mental states, and our consciousness of them, are the same fact, they all endeavour to qualify this by saying they are the same fact viewed in different relations. Considered in themselves as acts or feelings, or in relation to their external object, they are not termed consciousness. It is when they are referred to a subject or ego, that they are so designated,—consciousness being "the self-affirmation that certain modifications are known by me, and that these modifications are mine." In this self-affirmation, however, we are told, no additional fact is introduced. "It is not to be viewed as anything different from the modifications themselves. There is but one mental phenomenon, the act of feeling; but as this implies an acting or feeling self, we give it a name which connotes its relation to the self, and that name is consciousness."*

Though these distinctions were well founded, they would not affect the conclusions to which I have come; but to me they seem to be simply distinctions without a difference. I understand it is allowed on all hands that our mental states, both when considered in themselves, and with reference to their objects, *are* forms of consciousness; and why then should they not be so *called?* According to the usual philosophical vocabulary, they often are so denominated, and most certainly ought to be so. It is only when they are referred to an ego, we are told, that they are termed consciousness—consciousness being the self-affirmation that these states are ours, and recognised as such. I can honestly say that in all my life I never made such a reference or self-affirmation when I saw, or heard, or tasted, or remembered anything. In truth, such a self-affirmation is not only unnecessary, but

* Mill's Examination, chap. viii.

impossible. The mental modification in question, it must be remembered, is the ego of the moment, for a mental modification is just the mind modified; and therefore, to say that the ego recognises a modification, and affirms it to be its own, is just to say that the ego recognises the ego, and affirms itself to be itself, a very roundabout and meaningless, if not altogether self-contradictory, process. But it is affirmed that in all this "no new fact is introduced." Now it appears to me that, if words have meaning at all, a new fact is introduced. The primary fact is simply the sensation, or the mind in a state of sentiency; but to this there is now added that the sentient mind must identify itself with itself, in order to consciousness properly so called. "I see a book." I must make the self-assertion that the I which sees is, so to speak, my I, or myself, before I have any proper right to say that I am conscious.

But this self-contradictoriness is forced upon all believers in the old dogma that the mind is conscious of its own modifications. They cannot escape from it. They virtually endow every man with a double mind, as he has a double brain, of which the duty of the one is to be conscious of what passes in the other, and to make sure by self-affirmations and otherwise that our thoughts are really our own, and that we are conscious of them. "In an act of knowledge," says Sir William Hamilton, "my attention may be principally attracted either to the object known, or to myself as the subject knowing; and in the latter case, although no new element be added to the act, the condition involved in it—*I know that I know*, becomes the primary and permanent matter of consideration."* Here, as I apprehend, there is added not merely a new element, but a new consciousness, by which we are made acquainted with the old and antiquated one. It is too absurd. We do not know that we know—we simply know;—that

* Lecture xi.

expresses the whole fact. We might as well say—We know that we know that we know. We are not conscious that we are conscious, for consciousness does not take cognisance of consciousness, and therefore, no more can we be said to know that we know. We know, we feel, we are conscious—that is the whole mental part of the fact, and beyond that there is only the object which we know or feel.

In addition to these arguments, I might repeat all the arguments which have been urged against idealism in its full development, for idealism is the inevitable outcome of the belief that we are or can be conscious of an idea. According to the testimony of consciousness, as interpreted by every one who is not a philosopher, we are conscious not of internal ideas and sensations, but of an external world.

Let us see what is the consciousness of the unsophisticated man. Shutting out memory in the meantime, his consciousness, as I shall afterwards show, is entirely sensational. He sees, he hears, he smells, he tastes, he touches, and each sense has its own object; and no one will say that the object of any sense is the mind. He does not see, nor touch, nor taste his own soul, nor any of its modifications; and yet sensation is just consciousness specialised in the senses; and accordingly, if he is not thus sentient of his soul, he cannot be conscious of it. But he sees houses, he hears the hum of a thousand voices, he smells the Eau-de-Cologne with which his handkerchief has been sprinkled. Thus seeing, hearing, smelling, he is conscious of the things which he sees, hears, smells; for sensation is, as I have said, specialised consciousness. Or let us take a particular case. Mr Mill has taken an orange by which to destroy the universe; let us take an apple whereby to save it. We see it as green and round; we touch it, and feel it to be smooth and hard; we smell it, we taste it. That we see, touch, taste, smell, is granted; for sensations have been carefully preserved by the most annihilating idealists. Inso-

much, then, as we are sentient of it, we are conscious of it. Even Mr Mill would hardly say that in all this we see our mind as green and round, that we feel it to be smooth and hard, that we smell it and taste it, and find it to have a pomarian fragrance and flavour. It is the apple which is the object of our senses, and therefore of our consciousness.

Sir William Hamilton is generally regarded as having believed and taught that we are conscious in some sense of outside objects. But there is great hesitancy and dubiety in his utterances, and he frequently contradicts himself. With all other philosophers, he believes the mind is conscious of its own acts and affections, and so far therefore he is an idealist. He declares, however, that perception is "the consciousness of external objects;" and here he has a glimpse of the true light. But when he defines consciousness as "the recognition by the mind of its own acts and affections," we are left to wonder how, in that case, it can include external objects; and from other utterances of his, we are led to think that it does include external objects only in so far as they are contained or involved in the mind's acts and affections, which, after all, are the only objects of the mind's cognition.

"It is palpably impossible," says Sir William Hamilton, "that we can be conscious of an act without being conscious of the object to which that act is relative. This, however, is what Dr Reid and Mr Stewart maintain. They maintain that I can know *that* I know, without knowing *what* I know—or that I can know the knowledge without knowing what the knowledge is about: for example, that I am conscious of perceiving a book without being conscious of the book perceived—that I am conscious of remembering its contents without being conscious of these contents remembered—and so forth." "An act of knowledge existing and being what it is only by relation to its object, it is manifest that the act can be known only through the object; and Reid's supposition that an

operation can be known in consciousness to the exclusion of its object is impossible. For example, I see the inkstand. How can I be conscious that my present modification exists—that it is a perception, and not another mental state—that it is a perception of sight to the exclusion of every other sense? and finally, that it is a perception of the inkstand, and of the inkstand only, unless my own consciousness comprehend within its sphere the object, which at once determines the existence of the act, qualifies its kind, and distinguishes its individuality? Annihilate the inkstand, and you annihilate the perception; annihilate the consciousness of the object, and you annihilate the consciousness of the operation." *

Mr Mill elaborately answers this argument by showing that if consciousness of the act implies consciousness of the object in perception, it must do so also in belief and memory, and that Sir William Hamilton's doctrine of belief and memory is opposed to this, and that therefore he is inconsistent with himself. But to prove Sir William Hamilton to be inconsistent is not to prove his present proposition to be untrue. That it is true I think certain, inasmuch as it amounts to little more than this, that we do not see an inkstand unless we see it, or the seeing of an inkstand involves the seeing of an inkstand. But what I am at present chiefly concerned about is to show that Sir William Hamilton here seems to teach that we see the object only in so far as it is involved in the perception; that material things are embraced by the consciousness only after they have been transmuted by some secret alchemy into mental moods. If this be his meaning, he is still in the gall of bitterness and the bondage of iniquity.

Sir William Hamilton elsewhere draws a distinction between the *fact* and the *veracity* of consciousness, which seems to point to the same conclusion, that he held consciousness, strictly speaking, reached no further than the states of the mind.

* Lecture xiii.

"The facts of consciousness," says he, "are to be considered in two points of view—either as evidencing their own ideal or phenomenal existence, or as evidencing the objective existence of something else beyond them. A belief in the former is not identical with a belief in the latter. The one cannot, the other may possibly be refused. In the case of a common witness, we cannot doubt the fact of his personal reality, nor the fact of his testimony as emitted, but we can always doubt the truth of that which his testimony avers. So it is with consciousness. Wecann ot possibly refuse the fact of its evidence as given, but we may hesitate to admit that beyond itself of which it assures us. I shall explain by taking an example. In the act of external perception, consciousness gives as a conjunct fact the existence of me or self as perceiving, and the existence of something different from me or self as perceived. Now the reality of this as a subjective datum—as an ideal phenomenon—it is absolutely impossible to doubt without doubting the existence of consciousness, for consciousness is itself this fact; and to doubt the existence of consciousness is absolutely impossible; for as such a doubt could not arise except in and through consciousness, it would consequently annihilate itself. We should doubt that we doubted. As contained—as given—in an act of consciousness, the contrast of mind knowing and matter known cannot be denied. But the whole phenomenon as given in consciousness may be admitted, and yet its inference disputed. It may be said consciousness gives the mental subject, as perceiving an external object, contradistinguished from it as perceived; all this we do not and cannot deny. But consciousness is only a phenomenon; the contrast between the subject and the object may be only apparent, not real; the object given as an external reality may only be a mental representation, which the mind is, by an unknown law, determined unconsciously to produce, and to mistake for

something different from itself. All this may be said and believed without self-contradiction—nay, all this has by the immense majority of modern philosophers been actually said and believed." * "In the act of perception, consciousness gives as a conjunct fact an ego or mind and a non-ego or matter, known together and contradistinguished from each other. Now, as a present phenomenon, this double fact cannot possibly be denied. I cannot, therefore, refuse the fact that in perception I am conscious of a phenomenon which I am compelled to regard as the attribute of something different from my mind or self. This I must perforce admit, or run into self-contradiction. But admitting this, may I not without self-contradiction maintain that what I am compelled to view as the phenomenon of something different from me is nevertheless (unknown to me) only a modification of my mind? In this I admit the fact of the testimony of consciousness as given, but deny the truth of its report." † Having made this distinction, Sir William Hamilton argues that we have not to establish the reality of the consciousness, but its veracity, when it testifies of matters beyond itself.

This distinction has been admitted and applauded by Mr Mill,‡ who generally admits and applauds as little as he can in the philosophy of Hamilton; but notwithstanding this, I cannot help thinking it is entirely baseless, and only shows that Sir William Hamilton was a pure idealist. Of course, every one admits the reality of consciousness, for we must make this our starting-point in the search after truth. No consciousness, no knowledge. But what Hamilton declares to be a fact of consciousness which it is absolutely impossible to doubt, viz., that in external perception consciousness gives as a conjunct fact the existence of me as perceiving, and the existence of something different from me as perceived, I not

* Lecture xv. † Lecture xv.

‡ Examination, chap. ix.

only doubt, but absolutely deny. In every act of consciousness there is indeed implied the dualism referred to, the ego and the non-ego; but the ego in perceiving never perceives itself, but only the non-ego. But apart from this, the question which I wish to urge here is, In what sense did Sir William Hamilton hold that we are conscious of the non-ego? Do we perceive the non-ego immediately, directly, or only in and through the ego, that is, only as a mode of mind? In the passage I have quoted, he clearly maintains that we are conscious only of "the mental subject, as perceiving an external object." This, then, is the whole outcome of the Hamiltonian philosophy: we perceive the mind perceiving, and in the perception recognise its object. The immediate consciousness of an external world is thus abandoned—consciousness extends only to the perception of it. This is made more certain by his speaking in the same passage of our being conscious of the non-ego only as a "subjective datum," and as "contained or given in an act of consciousness." We are conscious of the "mental subject as perceiving an external object." Here we have the old absurdity of the mind conscious of the mind. But it is said the mind is conscious of the mind as perceiving an external world. In thus perceiving an external world, I ask, Does it consciously perceive it? If so, we are conscious of it directly and at once; if not, we perceive that of which we are not conscious (believe it who can). But Sir William Hamilton says that the conjunct fact of an ego and non-ego is "contained" or "given" in the percipient act of consciousness. What is meant by being contained or given in this act of consciousness? Does it mean simply that we are conscious of it—conscious of mind—conscious of matter—standing in contrast to one another. If so, there is at least a half truth here. But does it not rather mean that all we are strictly conscious of is a mental state which seems to reflect the external world, and *may* after all

be merely representative of it? If this be Hamilton's opinion, and there can be little doubt that it is, he has not advanced one footstep beyond Brown or Fichte; for even Fichte held that in every perception there are present an ego and a thing; but as he held, like Hamilton, that we are not conscious of the thing, he argued that it must be evolved out of our inner consciousness by some law of our being; whereas Hamilton, less logical, maintains that we are conscious of the outer world, perceived or seemingly perceived, because we are conscious of the purely mental act of perception. It is impossible. By being conscious of the inner world we can never be conscious of the outer world. Before we can know the outer world we must be conscious of it, as knowledge comes only through consciousness. An oyster could sooner escape from its shell than a mind conscious only of itself could emerge from its skull, and gain a knowledge of the outside world.

We have thus seen that Hamilton was truly an idealist after all. At the same time it is right to mention that there are passages in his lectures which appear to point to an opposite conclusion, or at least to show that he believed we had a double consciousness, a consciousness of self and of non-self conjoined. "We are immediately conscious in perception," says he, "of an ego and a non-ego, known together and known in contrast to each other. This is the fact of the duality of consciousness." And again, "We may therefore lay it down as an undisputed truth, that consciousness gives, as an ultimate fact, a primitive duality—a knowledge of the ego in relation and contrast to the non-ego."* Here it is asserted in plain terms that we are immediately conscious of the non-ego as well as of the ego; and in this assertion there is undoubtedly an honest though impotent effort to

* Lecture xvi.

break through a tight-laced idealism. But half measures seldom succeed, especially when the case is desperate; and Hamilton's doctrine of a dual consciousness — a two-faced but one-eyed Janus-consciousness looking in and looking out at the same moment—has only created new difficulties without removing the old. Sir William Hamilton maintains that in perception we are conscious of a dualism—of the mind perceiving and of the object perceived; and he emphatically declares that to doubt this is impossible. Now, I ask, is any one really conscious of such a dualism? When we look at a horse, we see the horse, and the horse only; certainly not also our own mind in the act of looking at the horse. There is the fullest consciousness of the horse; there is, and can be, no consciousness of the perception, for the consciousness is the perception, and therefore the one cannot be the object of the other.

It is curious that Reid, whom Hamilton reveres as his master, anticipated this doctrine as a necessary outcome of idealism, and does his best to ridicule it. "When I think of Alexander," says he, "I am told there is an image or idea of Alexander in my mind which is the immediate object of this thought. The necessary consequence of this seems to be that there are two objects of this thought—the idea which is in the mind, and the person represented by that idea; the first, the immediate object of the thought; the last, the object of the same thought, but not the immediate object. This is a hard saying, for it makes every thought of things external to have a double object. Every man is conscious of his thoughts, and yet upon attentive reflection he perceives no such duplicity in the object he thinks about. Sometimes men see objects double, but they always know when they do so," *—

* Essay ii. chap. viii. In another passage Reid anticipates the doctrine of Hamilton, but only to cast it aside as too ridiculous to be held by any one. "I do not find clearly explained," he says, "whether

unless, I may add, they be very drunk. Here the master laughs at the doctrine (as yet unbelieved in) which was afterwards to be regarded as the great discovery of the disciple, and the little change which has come over the word "duplicity" since his day increases the flavour of his jest.

Thus, let us look at the philosophy of Hamilton as we will, it gives us no loophole of escape from the difficulties of idealism. It is certain the great baronet fretted against the conclusions of idealism, and even beat his head against its bars like a caged bird impatient to escape; but it was in vain:—they were too strong for him. He had the old hereditary belief that the mind is conscious of its own moods; and so long as this belief is held in any form or to any extent, emancipation from idealism is impossible. Hold this opinion, and a clever logician will easily push you to the wildest conclusions of Berkeley or Fichte or Hegel: renounce this opinion, and you are free.

Is there, then, no sense in which we can be conscious of ourselves? There is. We are compound beings, made up of body and soul, most intimately blended together. Our body is as truly as our mind part of ourselves, and of that body we are unceasingly conscious. We cannot for one instant divest ourselves of the self-consciousness which interlaces itself more or less closely with every feeling and perception of the mind. The mind—that wondrous principle—so keenly

they suit their language to popular opinion, and mean that we perceive external objects in that figurative sense in which we say we perceive an absent friend when we look on his picture, or whether they mean that really and without a figure we perceive both the external object and its idea in the mind. If the last be their meaning, it would follow that in every instance of perception there is a double object perceived; that I perceive, for instance, one sun in the heavens, and another in my own mind. But I do not find that they (the idealists) affirm this; and as it contradicts the experience of all mankind, I will not impute it to them." (Essay ii. chap. vii.)

susceptible of all other feelings, can never be conscious of itself, any more than the eye ever looking out into the wide world can ever see itself, but it is evermore conscious of the living mantle in which it is clothed. It is even wrong, in some respects, to speak of the body as being aught separate from the soul—of the one being the vesture in which the other is robed : they constitute one being, and that being may be said to be conscious of itself. Nay, more, as all our sensations reach us through our organs of sense—as there is always a bodily impression before a mental one—it may even be affirmed that all our consciousness is a consciousness of self. Our corporeal organism must at least limit, and to some extent modify, our sensational knowledge, and may therefore be said to mingle with it. But this is very different from saying that the mind is conscious of sensation. Is not sensation itself simply specialised consciousness ? Why, then, speak of our being conscious of consciousness? It is the metaphysician, in his blindness, bringing forth a new lamp that we may see the light of that old magic lamp which nature has already placed within us.

But there is another circumstance to be taken into account, and which helps to explain how so many metaphysicians have fallen into the error of supposing that the mind is only conscious of its own moods. The mind, though one and indivisible, is yet capable of having many different sensations at once. It cannot be otherwise, for objects of sense are constantly pressing upon us from all sides, through all our organs of sense. Moreover, sensations and memories are always more or less mingled together in our mind. We probably never have any sensation of the present without having at the same moment some recollection of the past. Now this conjunction and contrast of the present and the past in consciousness is the basis upon which some philosophers have built their doctrine of personal identity, and others their conception

of concrete, enduring individuality—the ego in opposition to the transient feeling. And they are right; for there is a composite state of consciousness, the result of all our external and internal sensations, and of any reminiscences we may have; and this, though changing, is permanent, and makes us what we are. In truth, no object of sense ever comes before our consciousness all alone. There is always a kind of background of memories and sensations coming from every part of our frame, and so we are prone to deceive ourselves and think that in all consciousness we are conscious only of self. It is these memories of the past that chiefly cheat us, as I shall afterwards show; our minds are continually crowded with them, and so they appear to us to be like chambers of imagery.

## CHAPTER IV.

### *THE KNOWER AND THE KNOWN.*

HAVING thus seen that all the theories of mind-conscious-of-mind are self-contradictory and incredible, we are driven, whether we will or not, to the opposite theory of mind-conscious-of-matter. Let us see what it means, and how far it is accordant with the universal convictions of men.

The mind is that which knows, or that which is conscious. If we admit any other element, we destroy the true conception of mind: it is simply the knower, the feeler. To know and to be conscious are the same thing. All philosophers appeal to consciousness as witnessing to their respective systems, and they are well entitled to do so, indeed, must do so; but after all, their appeal can only mean that they know what they know. Consciousness gives no information of a higher or more authoritative kind than that to which the phrase "direct knowledge" can be applied; and I use the epithet "direct" only to exclude such knowledge as we get from inference, or testimony to which "conscious" cannot be strictly applied. What we are conscious of we know directly: what we know directly we are conscious of.

At the same time it must be noted, that the term "consciousness" is frequently used in a somewhat loose fashion. Such phrases as the following are not uncommon:—"I am conscious I am right;" "I am conscious of imperfection;" "I am conscious of my powers;" "I am conscious of past error." None of these phrases is philosophically correct, though they may

all be so construed as to show that they are not absolutely wrong, inasmuch as there can be no knowledge without consciousness. But consciousness applies properly only to that which is immediately present to the mind. What we presently see, or hear, or feel, or remember, we are conscious of.

Knowledge is a relative term, and implies a knower and a thing known. In all knowledge there must be this dualism. Knowledge without a knower is a contradiction in terms: knowledge without a thing known is equally a contradiction in terms. The identification of the two terms in the ideal systems destroys the relation, and knowledge becomes an impossibility. There can be no relation where there is only one term,—no knowledge where there is no longer any contrast of knower and known.

But it may be said that I have all along taken it for granted that there is an ego which knows—though I have maintained that it is unknown and unknowable—beyond the limits of consciousness and even of conception. If it be unknown, what proof have we of its existence? The easy answer to this is, that the existence of knowledge proves the existence of a knower. If there be things known, there must be a mind which knows them. It may even be said that in every act of knowledge there is revealed not only the thing known but the knower; but the knowledge of the knower is only a relative knowledge, and, strictly speaking, relative knowledge is not knowledge at all. We know the knower in the thing known. We know—what deeper foundation for existence can be laid than this?—it is Des Cartes' *Cogito ergo sum;* but the *we* in all knowing knows something else than itself, and here there is laid the groundwork of the contrast and relation implied in all knowledge between the ego and the non-ego—the knower and the known. Abolish either of these, and knowledge becomes impossible.

We know—what do we know? We think—what do we

think about? I have shown that we cannot be conscious of our mental states; that the knowing and the being known cannot be confounded. Of what, then, are we conscious? for we cannot be conscious without being conscious of something, we cannot know without knowing something. Now, as the ego and the non-ego exhaust the universe, and as the former cannot be the object of consciousness, the latter only remains. In all consciousness, then, we are conscious of what is external to us, call we it what we please—the non-ego, matter, outside object, the world. The universal convictions of mankind give testimony to this. All thinking is objective. Whatever we think of is thought of as outside the mind. We have a thought, but that thought is not the object of consciousness; the thing thought of is the object. We see a tree, that tree, and nothing else, is the object of our conscious vision. We handle a knife, the knife, and no intermediate sensation, is the object of our conscious touch. We remember a friend, our very friend, and no counterfeit representative image of him is the object of our conscious remembrance. Thus in every case of sentiency and of memory, the mind and its object are different from one another, but they ever stand face to face, without any intervening sensation or recollection.

So deeply ingrained is this conviction in the universal consciousness of mankind, that the language of all systems, even the most sceptical, is based upon it. Hume believed in neither matter nor mind, but he believed in what he called ideas and impressions. What is a mental impression? In itself, strictly speaking, it is nothing, but it implies two things—a something impressed, and a something which impresses it; in other words, that which we call mind, and that which we call matter—the very things Hume spent his strength in denying. Now what is meant by the mind being impressed by surrounding objects, if it be not that it is conscious of them? And we must not imagine that there is

first the impression, and then the consciousness of that impression: the impression is the consciousness; for we cannot conceive of outside objects impressing us unless by making us conscious of themselves. Brown preferred to speak of the mind being affected rather than impressed, and of mental affections rather than of mental impressions. But the same inference is irresistibly deducible from his language. How can there be a mental affection unless there be a mind affected, and a something affecting it? and what is meant by an affection but a consciousness of something? for all the mind's moods are moods of consciousness. To be affected by anything is simply to be conscious of it. The term "sensation," which is used by all psychologists, implies the same two factors, the sentient mind and the sensible object. Sensation is an abstract term; you give it meaning and existence only by referring it to a sentient mind; and the mind cannot be sentient without being sentient of something. A sensation of colour can mean only that the mind is conscious of colour. In truth, it is impossible to frame a language which does not proceed upon the supposition that there is a dualism in knowledge—the knower and the known; and hence the idealists have their best refutation in their own necessary forms of speech. Knowledge without such a dualism is inconceivable, and therefore unutterable.

The common language of all people bears the most decisive testimony to the same truth. I see the house, I hear the bell, I touch the table, indicate as clearly as words can indicate it, that we are sensible of these things, or, which is the same thing, that we, through our senses, are conscious of them; and to say that it is not so, and that we are only conscious of certain sensations, is to violate the meaning of words, as the sensations are themselves the consciousness of the sensible things. To be conscious of that which is itself the consciousness is nonsensical. But it may be affirmed

that this theory confounds sensation and perception. I quite allow it, I see no difference between the two. In truth, as the idealistic theories reduce perception to sensation, the realistic theory, which I am now explaining, reduces sensation to perception, or rather reduces both to unity. Let us see the grounds upon which the distinction between sensation and perception is made.

Till last century "perception" was used with a very wide and indeterminate signification. Reid, so far as I know, was the first to give it a restricted and technical meaning. He discriminates it from sensation, and sets the two before us at once in conjunction and in contrast. "When I smell a rose," says he, "there is in this operation both sensation and perception. The agreeable odour I feel, considered by itself, without relation to any external object, is merely a sensation. . . . Perception has always an external object, and the object of my perception in this case is that quality in the rose which I discern by the sense of smell." "Sensation taken by itself implies neither the conception nor belief of any external objects. . . . Perception implies an immediate conviction and belief of something external—something different both from the mind that perceives and from the act of perception."* "Perception proper," says Sir William Hamilton, "is the consciousness through the senses of the qualities of an object known, as different from self; sensation proper is the consciousness of the subjective affection of pleasure or pain which accompanies that act of knowledge. Perception is thus the objective element in the complex state, the elementary cognition; sensation is the subjective element, the element of feeling." †

I shall take the definitions here given by Sir William Hamilton, as they are the most clear and specific, and inquire if the contrast which is presented in them has any

* Essay ii. chap. xvi. † Lecture xxiv.

real foundation in fact. At the outset it will not be impertinent to remark, that hitherto our senses were regarded as the channels by which we obtained our knowledge of the outer world. It was supposed they were given us for this very purpose; that by our eyes we obtained a knowledge of colours, by our ears of sounds, by our nostrils of smells. In the language alike of the philosophical and of the vulgar world, the impressions produced on our minds through the agency of the senses were appropriately called sensations. But now it is discovered that in sensation is no knowledge; that all the impressions we receive of the external world through eyes and ears give us no information of it; and a new faculty is invented to do what the old senses have left undone. "God has not been so sparing to men," says Locke, "as to make them barely two-legged animals, and left it to Aristotle to make them rational." Neither, we may imagine, has He given us eyes which do not see, and ears which do not hear, and left it to modern philosophers to provide another gateway of knowledge. Perception, it is said, is the consciousness through the senses of the qualities of objects. This, in my apprehension, is the best definition which could be given of sensation. It is the knowledge of sensible objects got through the senses. Not at all, say Reid and Hamilton and Mansel; sensation is only a subjective feeling of pleasure or pain, affording no knowledge whatever of external things. It is perception that makes us acquainted with sights and sounds, with tastes and odours, with hardness and shape. If it be so, it is obvious that our senses have been given us in vain—that they are not as we had supposed them to be, the windows by which the soul looked out at the world—that we attributed to them functions which did not belong to them—and that, if not without them, at least without the sensations they give, we might have had all our present knowledge of external nature only purified from all alloy of pleasure or pain.

Sensation, we are told, is merely feeling—a feeling of pleasure or pain. It is a question among psychologists whether all our sensations are either pleasurable or painful, or whether the greater bulk of them are entirely indifferent. When I read a book, I have sensations from every word and letter on the printed page, and in these sensations it is difficult to discover either pleasure or pain; and yet, according to the theory I am considering, it is in the pleasure or pain that the whole sensation consists. But it may be said that nothing can be purely and perfectly indifferent, that there must be either pleasure or pain, however infinitesimal, in everything mental. Be it so. But neither pleasure nor pain is an entity which the mind can feel. I am not here teaching that the mind is unsusceptible of pleasure and of pain, though I would that it were so in regard to the latter; but I am affirming that pleasure and pain are states of mind—of consciousness—generally speaking, of sensation—and therefore it is not correct to speak of them as the objects of sensation. Our sensations may be pleasurable or painful; in other words, our minds may be pleasurably or painfully affected; but the pleasure or pain being the sensation itself, or rather an element in it, cannot be its object. These feelings, like all others, must have an outside object and cause. It has already, I hope, been sufficiently demonstrated that we are not conscious of any of the mind's affections; we cannot therefore, according to Hamilton's definition of sensation, be conscious of the subjective affection of pleasure or of pain, but we may be conscious of many outside things which pleasurably or painfully affect us. But it may be asked, Is not this the very same truth differently expressed? I answer—No; under the distinction lies the line of separation between the most opposite philosophies possible. Here is the watershed of a continent, where the raindrops, as they fall, may find their way either into the Atlantic or the Pacific Sea.

Let us look at the matter closely. Let it be granted that most sensations, if not all, involve either pleasure or pain, although in the majority of cases only in a very slight degree. We see a colour; in doing so, we not only discern the shade of light, but are less or more agreeably affected by it. We taste a drug and feel it to be nauseous; in this case we do not feel the feeling of nauseousness; we are not conscious, as Sir William Hamilton would have it, of the subjective sensation of nauseousness; but we feel, we are conscious of, that objective quality in the drug which is the object and the cause of the nauseous taste. The word "nauseous," like many others of its class, it will at once be seen, is ambiguous, and is applied sometimes to the material quality and sometimes to the mental feeling which that quality excites. Now, in the first case above given, we generally discriminate between the knowledge and the feeling given in the sensation of colour; in the second case, we do not; but in the one as well as the other the two elements co-exist, for we both discern the particular flavour of the drug, and feel it to be disagreeable.

Let us take another case. I press my hand gently upon the table, and feel it, and the touch is rather pleasant than otherwise. I hit my hand hard upon the same table, and now, while I still feel the table, the sensation is decidedly painful. As the outside object, in both instances, is the same, the difference must result from the shock which in the latter case is given to the organ. It is irritated or inflamed, and the mind is painfully affected by it, just as it would be by any other pain-causing affection of the body. Indeed, this instance seems to suggest the probability of the pleasantness or painfulness of all or most sensations depending upon the manner in which the object acts upon the organ. Upon the same circumstance, or rather upon the difference in nervous organisation, may depend the fact that the same objects of sense have different effects upon different individuals,—that

the odour which is pleasant to one person is the cause of nausea and even of fainting to another,—that what is food to one is poison to another. But what I am anxious should be observed is, that in every case the pleasure or pain is part and parcel of the sensation; and as the sensation is itself a mood of consciousness, we cannot be said to be conscious of it. We are pleased or pained, but the pleasure or pain is always mental, and can never be an object of our consciousness. To feel pain is to feel a feeling, which is not only tautological but absurd.

Sensation, therefore, is not what Hamilton would make it —the consciousness of the subjective affection of pleasure or pain which accompanies the act of knowledge. It is essentially what he defines perception to be—the consciousness through the senses of the qualities of objects. Every sensation involves knowledge. A blade of grass is presented to us, and we see it to be green; the sensation we have is a sensation of its greenness, and that is our knowledge of it too. The clock strikes, and we hear its stroke, and in the sensation is our only knowledge of its sound. The knowledge and the sensation are one. If objects of sense are not known in sensation, how else are they known? What other inlets to the mind have we besides our senses? and is not the knowledge we derive from our senses what we call sensation? If colours, smells, tastes, sounds be sensations, what is the knowledge which perception gives? We know nothing of these except as sensations. The hearing of sounds, the seeing of sights, is a simple indivisible act; and the sound being heard, the sight being seen, nothing else remains to be done—all the knowledge is got that can be got. Perception, then, is not different from sensation.

But it is said that perception and sensation, though always co-existing, are always in the inverse ratio of one another; that when sensation is weak, perception is strong, and that

when sensation is strong, perception is weak; and that we have thus a decisive proof of a real difference between them.* When thrown into this solvent, they separate from one another. Let us see if it be so. If the law holds, the minimum of sensation will be the maximum of perception. We shall perceive colours best in the faintest possible light. We shall discriminate perfumes most distinctly when the slightest possible odour reaches our nostrils. Is it so? Undoubtedly not. But it is said that the law holds good only within certain limits. Now, without urging the remark that this is a virtual abandonment of the law, I ask what are these limits? I think it is in accordance with the experience of most men that, within all ordinary limits, as light increases, our perceptions of surrounding objects increase in vividness—that as sounds grow louder we hear them more distinctly. It is true that light may be so brilliant as to dazzle our eyesight—that sound may be so loud as to stun our ears; but in explanation of that it can be said that it happens only when the light or the sound is in excess of what our organs are fitted to receive, or rather are accustomed to receive; and further, that even in such cases it is universally true, the more vivid the light, the more vivid our perception of it—the louder the noise, the louder do we hear it. A flash of lightning reveals to us for the moment everything in the clearest light, though it leaves us the next in such darkness that we feel as struck blind.

But it has been argued that the senses which give most information give the least sensational pleasure or pain; and that those which give the least information give the most sensational pleasure or pain. Sight, it is said, presents to us a greater variety of objects and qualities than any other of the senses. In this sense, therefore, the objective element—

* See Hamilton's 24th Lecture, where the subject is discussed at considerable length.

perception—is at its maximum, and the subjective element—sensation—at its minimum, as we experience little organic pleasure from colours. In hearing, taste, smell, there is less information, but more feeling. Now, I think that no one after reflection will agree with these propositions. Sight may be the noblest of our senses, and may have the widest range; but every other sense gives as clear and full information of its own objects as sight gives of its. The palate can be taught to discriminate tastes with the most marvellous accuracy; but as language unfortunately has no names for one hundredth part of these, the tongue feels much which it cannot tell. The nose is as trustworthy as either the eyes or the ears, especially if it be equally well trained. How miraculously discriminating is the nose of some animals! It is true that a man might be deprived of his pituitary membrane, and his consequent capability of enjoying perfumes, with less inconvenience than his eyesight, for vision is conversant with objects the most necessary for man to know, and besides, has been trained to do much other work besides its own; but acquaintance with a new perfume is as truly knowledge as acquaintance with a new shade of light.

As sight and hearing do not give us more perfect information within their sphere than taste or smell within theirs, neither is their sensational pleasure less. Are colours less pleasant to the eye than tastes to the palate? Are sounds less delightful than smells? None but gluttons and wine-bibbers will say so. I acknowledge, however, that keener pain, and more that is disgusting and disagreeable, may reach us through touch, taste, and smell, than through sight or hearing. But that seems to prove only that these pains are organic. Light, that heavenly element, can scarcely ever offend the eye, which is, moreover, so delicately constructed as to temper the too fierce ray. But heavy blows may bruise the body, abominable stuff may find its way into the mouth, and disgust the careful

sentry of the stomach who keeps watch and ward there. But this does not prove that sensation has a subjective as well as an objective function, for sensible objects coming to us from our body or our bodily organs are objective to the sentient mind. But it is farther said, that in those cases in which sensation predominates, and the pleasure is most intense, the feeling soon palls upon us, whereas in those in which perception predominates, and intelligence is most concerned, there is a more enduring gratification. Thus it is argued, how soon are we cloyed with the pleasures of the palate compared with those of the eye! and among the objects of the former, the viands that please the most become soonest objects of disgust. Now, so far as this is true, I apprehend the cause of it is physical rather than spiritual, and to be sought for in a stomach liable to disorder, rather than in a mind raised above such a weakness.

But it is still further argued in defence of the law that perception and sensation, though co-existent, are always found in an inverse ratio to each other, that in painting, the sensational pleasure derived from brilliant colouring is far inferior to that intellectual pleasure which flows from the skilful grouping of the figures. Let this be granted, and it proves nothing. The pure sensation of brilliant colouring is undoubtedly agreeable, and some of the enjoyment we draw from painting comes from this source; but the chief pleasure we derive from harmonious grouping is not connected with sense or perception at all, but is dependent upon those associations of ideas in the mind upon which almost all the beauty and sublimity of the external world depend. Every person with healthy organs perceives the picture alike—has the same perceptions of its colouring, grouping, drawing—but all do not feel its beauty alike. The child and the savage are most enchanted with the gaudiest hues, the connoisseur with the

happiest combinations; the perceptions of both are the same, but their mental associations are widely different.

But I have hitherto said almost nothing of the sense of touch; and it is thought to afford the most striking evidence of the law which regulates sensation and perception. In those parts of the body, it is affirmed, where sensation predominates, perception is feeble; in those where perception is vigorous, sensation is obtuse. In the points of the fingers tactile perception is at its height, but in every other part of the body, sensation is more acute. In answer to this, I think it sufficient to remark, that if the finger-points have more discrimination than other parts of the body, they owe it in a great measure to their training for this peculiar kind of work. In cases in which the fingers have been diseased or amputated, other parts of the body, the toes, the lips, have been disciplined to do their work, and have done it well, acquiring as great delicacy of touch as the tips of the fingers. But besides this, it is very questionable if the fingers, which from their prehensile power and training have such a nice perception of shape and size, have less sensation than other parts of the body. Physiologists tell us that a number of nerve-peripheral end organs, commonly called touch-bodies, are gathered there, and these are generally supposed to have something to do with tactile sensibility. If the skin be anywhere abraded or tender, the touch at that spot will border more on the painful than at the finger-tips, where the skin is thick and strong; but that by no means proves that sensation is keener in the one place than the other. But beyond this the old question still remains, what are these perceptions of hardness and softness, of shape and size, but sensations?

We have thus seen that the law enunciated by Hamilton does not hold, and that sensation and perception are not in the inverse ratio of one another. We have seen, in truth, that they are not separable in the one indivisible mental act.

In that act there is not both a subjective and an objective element, unless in so far as there is the subject knowing or feeling, and the object known or felt. What is defined as perception embraces the whole facts of the case; but I prefer calling it not perception, but sensation—the good old name—because it is by our senses that the knowledge referred to is obtained.

Throughout these speculations I have differed very widely from Sir William Hamilton, and yet there is no master in philosophy, whom I more revere. All in all, he is the greatest metaphysician whom Scotland has produced. He had not so much insight as Dr Reid, or so much analytic power as Dr Brown, but he had more learning, more comprehensiveness, more method, more argumentative power. He was the first to reduce the grand but chaotic thoughts of the Scotch Philosophy into a kosmos. His massive head, on which, as I remember him, the black hair was beginning to be sprinkled with white, the large dark eyes, the firm-set mouth, the whole expression, in which high intelligence and kindly feeling shone out, revealed the true king in one of the great spiritual kingdoms of the world. Gentle as a lamb in conversation, and apparently more anxious to hear the opinions of others than to state his own, he was yet bold as a lion when sitting in the professorial chair. The humble inquirer suddenly became the fierce dogmatist; and oh! how his eyes sparkled as he tore up the tenets of rival philosophies with a kind of savage joy, and almost seemed to trample on the slain. His enthusiasm was infectious. He was a revival preacher in philosophy; and there are now hundreds in every part of the world who are proud to tell how they sat at his feet, and caught from him their first love for metaphysics, and their earliest glimpses into the marvellous mechanism of the human mind.

# CHAPTER V.

## *JUDGMENT.*

BEFORE testing the doctrine I have here developed in the crucible of our different faculties, it is necessary I should first inquire what are the original and elementary faculties of the mind?

The mind in its intellectual phase has, by a kind of common consent, been divided into sensation, memory, and judgment. By sensation, it is said, we receive our knowledge; by memory we retain it, and by judgment we discover its differences and agreements. Some psychologists have added to these faculties others—as perception, imagination, attention, abstraction; but almost never, at least in our own country, has a serious effort been made to diminish them. Sir William Hamilton has altered their names, but he has not reduced their number. The belief in a trinity of faculties has formed a main article of our philosophical creed for at least a thousand years. I venture in this also to be heretical, and to think that we have only two elementary faculties—sensation and memory—judgment being easily reducible to these.

In the beginning of last century, the celebrated French philosopher Condillac, following in the footsteps of his master, Locke, and advancing beyond him, attempted to show, not merely that all our knowledge is derived from sense, but that all our faculties are derived from sensation.* By an

* See his "Traité des Sensations."

ingenious analysis he endeavoured to prove that memory and judgment, that even affection, feeling, and desire, are but different forms of sensation, and may be distinctly traced back to their original. The only element he calls to his assistance is attention, but even attention, he declares, is but a certain degree of sensation—the primary mental state out of which all the others are generated. A sensation, he says, is attention if it be alone present to the mind, or if it be more vivid than any others which happen to be present too. In other words, a sensation which is so strong as to concentrate the mind upon itself is attention. Attention being thus elicited from sensation, all the faculties and feelings of the mind are shown to be compounds of these two, as the most varied substances are found by the chemist to be made up of elements more simple than themselves, combined in different proportions. Our sensations, he says, are of two kinds, those which we have, and those which we have had. In common phrase, the former are called sensations, the latter memories; but there is no radical difference between them. Memory is only sensation transformed. Again, we are able to attend to two objects at once; but to attend to two objects at once is to compare them, and to compare them is to discern their agreement or difference, in short, to judge of them. Thus judgment comes into being. It is not a primary faculty, but only a form of that form of sensation which we call attention. But still further, our sensations are either agreeable or disagreeable, either pleasant or painful—none of them are absolutely indifferent; and of this is born desire. To desire is simply to judge that the agreeable is necessary to us. From desire, as from a first parent in the realm of feeling, are descended all the passions—love, hatred, hope, fear. All these, then, are but transmuted sensations. Though in some respects changed in the course of successive generations, as a remote posterity differs in form and feature from its original parentage, their pedi-

gree is certain, and can be followed up to the rudimental form of all thought and feeling—the simple cell of the mental world.

Condillac has, with admirable art, illustrated his theory by supposing a statue, internally organised like ourselves, with capabilities of thought and feeling, but in the meantime shut out from the external world by its envelope of marble—unconscious but capable of consciousness, inanimate but ready to spring into life. He then removes part after part of the envelope, lets the outer world stream in upon the organisation within, and invites us to behold how knowledge and passion are generated, as we are enabled by means of an anatomical Venus or Apollo to behold how the heart pumps out its blood, how the sinews bind together the bones, and how the whole nervous system communicates with the brain. But notwithstanding the ingenuity, and even the beauty, with which Condillac has developed his theory, he has failed to found an enduring school of psychology. He had followers among his own countrymen, but his system can scarcely be said to have penetrated either into Germany or Britain, and even in France it may now be regarded as almost extinct. He attempted too much, and he accomplished nothing. Only too solicitous to discover unity in the midst of complexity, he has confounded things which are different. Among other errors, he is frequently guilty of confounding a mood of mind with a faculty of mind. Thus it may be that the ideas recalled by memory are but revivified sensations, and yet the mind's capability of recalling the past be something quite distinct from its capability of being impressed by the present. Though ideas and sensations be rudimentally the same, that does not prove that sensation and memory are identical. Condillac assumes that it does. He has been misled by words. Both in the French language and our own the mood and the faculty are frequently designated by the same term; and hence he has been led to confound the one with the other.

But is a mental mood really different from a mental faculty? It clearly is, and that whether we regard the mind as active or passive. The one is evanescent, the other is permanent. The one is a temporary modification, the other is an enduring attribute. An act of sight is not the eye which sees, neither is an act of sensation the mental faculty by which we are sentient. Holding this as certain, I think it is equally certain that, looking only to the intellectual side of the mind, we can discriminate two original faculties, clearly different the one from the other—sensation and memory—a faculty of the present and a faculty of the past; the faculty by which we receive our knowledge, and the faculty by which we retain and recall it. Judgment, as I have already said, when reduced to its ultimate elements, is not different from these, and may therefore be reduced to them.

In an inquiry like this it is necessary that we should accurately define our terms. Sensation is the mind's capability of being affected by external things through the channel of the senses; memory is the power of recalling past experiences; judgment is the faculty by which we perceive relations—in other words, by which we discern the agreement and disagreement of things. Whenever we predicate one thing of another, we judge; so that judgment is necessary to the forming of even the simplest proposition. Let us then take some such simple proposition, and see if there be anything more implied in it than is furnished by sensation. Let us take, for example, the proposition, "Snow is white." Now to me it appears very evident that when we say "snow is white," we only embody in words the sensation we have when snow is presented to our organs of sight. When snow is presented to our senses, we have not first a sensation of its whiteness, and then a judgment of its whiteness; in other words, we do not first see it to be white and then judge it to be white, for this were to give the mind double work, making it do the same thing

twice over. Nor will it be denied that sensation gives us the knowledge of whiteness without the aid of judgment; for it is by sensation, and sensation alone, that we learn the qualities of objects, and by the sense of sight, and the sense of sight alone, that we become acquainted with the various colours of external nature. It can only be, then, from the information we receive from sight that we can affirm that snow is white; and if by means of this sense we have this knowledge, and are consequently able to embody it in a proposition, there is no need of conjuring into existence another faculty to do for us what has been done already without it.

It may be argued that when we say "snow is white," we distinguish the colour of snow from any other colour, and that therefore there must have been a mental process not implied in sensation to make the distinction. But a little reflection will convince every one that though there were nothing but snow in existence, the mind would have the same sensation from it as it now has. There might not be a word invented to signify its whiteness, for that would be unnecessary; but when presented to the senses, it would produce precisely the same sensation in the mind, so that if it were not said that snow is white, it would be sensationally felt that snow is white, which for the purpose of my argument is the same thing. When, therefore, a piece of snow is presented to our organs of sense, and we say that it is white, we merely state in words the sensation which we have at the time; when, again, we say that snow is white, although it be not at the time present to our senses, we merely mention a quality which we *remember* it to have had when it was present to our mind as a sensation. In other words, when we enunciate any simple proposition, such as "ice is cold," "grass is green," "honey is sweet," we merely state in words the sensation which we have or which we remember.

Let us take another instance, in which the operation of a distinct and independent faculty of comparison may be supposed to be necessary. Let us suppose that two objects are presented to our organs of sense, one of which is red, the other blue. In such a case, vision at once conveys to our mind a knowledge of these two colours, and therefore we immediately know the one to be red and the other blue, without the intervention of any other faculty. If it be so, where shall room be found for judgment, what is its vocation, what its work, what can it do which has not been done already? It may be said, and often has been said, that it tells us there is *a difference* between the two objects of sense; that to discover agreements and disagreements is its proper function. But it is manifest that if we already know the one object to be red and the other blue, we also know they are different. If it should be argued that we may know the one to be red and the other blue, and yet not compare them so as to know that they are different, I reply that this is contradictory and impossible; that it implies, we may know them to be different and yet not know them to be different. In truth, in the case supposed, comparison does not require to be superadded to what has already been done. In virtue of sensation we already know the one to be red and the other blue, and therefore different, and all further processes are unnecessary.

It will be observed that I have assumed, in the instance above given, that both objects are present to the mind at the same instant of time; in other words, that the mind is conscious of them both at once. It is conscious that the one is blue at the same instant that it is conscious that the other is red, and therefore it is conscious that there is a difference between them. In taking it for granted that two or more objects may be present to the mind at once, I am not making an unwarranted assumption; for besides the cir-

cumstance that this is allowed by almost all psychologists, those who hold judgment to be an independent faculty are obliged to assume the same thing; for how could the mind judge of the relations of two objects if only one of them were present to it? Relation implies plurality.

In commenting upon the proposition "gold is yellow," Mr J. S. Mill remarks: "We must have the idea of gold and the idea of yellow, and these two ideas must be brought together in our mind. But, in the first place, it is evident that this is only a part of what takes place, for we may put two ideas together without any act of belief; as when we merely imagine something, such as a golden mountain, or when we actually disbelieve. . . . To determine what it is that happens in the case of assent or dissent, besides putting two ideas together, is one of the most intricate of metaphysical problems."* According to my way of thinking nothing more happens, and metaphysicians need not puzzle themselves in vain regarding intricacies of their own creation. When we see that gold is yellow—and we cannot see gold without seeing this—we can say it, and cannot help believing it. Here is the beginning and end of the matter.

According to Sir William Hamilton, the recognition of agreements and differences is a much more operose process of mind. "As a judgment," says he, "supposes a relation, it necessarily implies a plurality of thoughts, but conversely a plurality of thoughts does not necessarily imply a judgment. . . . The thoughts *water*, *iron*, and *rusting* may follow each other in the mental train; they may even be viewed together in a simultaneous act of consciousness, and this without ever considering them in an act of comparison, and without therefore conjoining or disjoining them in an act of judgment. But when two or more thoughts are given in consciousness, there is in general an endeavour on our part to discover in

* Logic, vol. i. p. 97.

them and to develop a relation of congruence or confliction; that is, we endeavour to find out whether these thoughts will or will not coincide, may or may not be blended into one. If they coincide, we judge, we enounce their congruence or compatibility; if they do not coincide, we judge, we enounce their confliction or incompatibility. Thus, if we compare the thoughts *water*, *iron*, and *rusting*—find them congruent, and connect them in a single thought, thus—*water rusts iron* —in that case we form a judgment." *

From this exposition of the mental process employed in judgment I venture to dissent. With almost every statement contained in it I am forced to disagree. Judgment does not get to its conclusions by such roundabout roads. A plurality of thoughts, it seems to me, does necessarily imply a judgment, for there could not be a discerned plurality unless the one were discriminated from the other. Water, iron, rusting, cannot be viewed together in a simultaneous act of consciousness, without our considering them in an act of comparison, without conjoining or disjoining them in an act of judgment. For in order consciously to conceive water as water, iron as iron, rust as rust, we must consciously discriminate these ideas from one another, and from every other idea present to our mind; and this implies comparison and disjunction in an act of judgment. But it is said that when two or more thoughts enter the mind there is in general an endeavour on our part to discover their agreement or disagreement. The ordinary consciousness does not bear witness to this mental struggle. Every thought which enters the mind is at once recognised through its object as having an individuality of its own, which separates it from all other thoughts. But supposing the reality of this incessant hunt after relations, it is said that if we discover our thoughts to coincide or not to coincide, we judge accordingly. But what is the need of judging accord-

* Lectures on Metaphysics and Logic, vol. iii. pp. 226, 227.

ingly, seeing that judgment has been passed already, inasmuch as we have, according to the supposition, perceived the coincidence or otherwise of our thoughts? The example of a judgment given by Sir William Hamilton does not mend matters—it rather makes them worse. "If we compare," says he, "the thoughts *water*, *iron*, *rusting*—find them congruent, and connect them into a single thought, thus—*water rusts iron*—in that case we form a judgment." Now, it appears to me that we never could by any mere mental comparison evolve out of the three thoughts water, iron, rust, the one thought "water rusts iron," and that when we do form this thought, we do so either on account of what we have seen or what we have heard. In either case the thought is the issue of memory, and not of any separate and independent power.

From what has been said, it will be seen that memory as well as sensation is often robbed of the good works which it does, to have them attributed to the artificial faculty called judgment. In truth, very many of those mental acts which we call acts of the judgment are altogether acts of the memory. It is generally so in regard to numbers. Thus when we say six times twelve are seventy-two, we do not feel a necessary agreement between six times twelve and seventy-two: we only remember that seventy-two is marked in our multiplication-table as the result of six multiplied by twelve. Not one in a thousand goes over the steps necessary to verify the table, and to show that there is an identity between six times twelve and seventy-two. If $6 \times 12 = 73$ were marked in our multiplication-tables, we should not necessarily and at once perceive the disagreement of the factors and their product: in fact, all but the most expert arithmeticians occasionally do make blunders in their arithmetic without perceiving any necessary incongruity. If it should be said that the science of numbers is not founded upon sensation, and would

be true though there were not an object of sense in the universe; that though there were not seventy-two, twelve, or even six atoms in existence, still six times twelve would be seventy-two—the answer is easy. The science of numbers has an abstract and universal truth, because it is founded upon definition, and is in all its results simply an expression of identities. What is four? twice two. At the same time I must add, that I cannot comprehend how there could be *numbers*, unless there were *things*.

But we must now look at some of the arguments which have been urged against the views I have been advocating, and in support of judgment as an independent and rudimental faculty of mind. Dr Thomas Brown has taken up arms in this case: let us see with what success. "Innumerable objects," says he, "may be and are continually present to us at once, so as to produce one complex affection of mind—fields, groves, mountains, streams; but the mere co-existence of these so as to form in our thought one scene, involves no feeling of comparison; and if the mind had not been susceptible of other affections than those of sense, or of mere remembrance of the past objects of sense, either in whole or in part, it might, when such a scene was presented, have continued for ever in the state which forms the complex perception of the scene, without the slightest notion of the relation of its parts to the whole or to each other." * Now it will be observed there is here only an affirmation, without even the shadow of an argument to support it; and I must say it is to me inconceivable that we should observe at the same time fields, groves, mountains, and streams, without perceiving them to be different. If we recognise the fields as fields, and the groves as groves, we recognise their dissimilarity. It is impossible for a man to see two different objects, or to have two differing sensations, without consciously knowing them

* Lecture xxxiii.

to be different. Different objects must affect the mind differently, which is equivalent to saying that the mind is conscious of their difference.

Again, "We may see, and often do see, objects together," says Dr Brown, "without forming uniformly the same comparison; which could not be the case if the mere co-existence of the two perceptions constituted or involved the comparison itself. In the case of a horse and a sheep, for example, though these, in the sensations which they excite, cannot at different times be very different, we compare at different times their colours, their forms, their magnitudes, their functions, and the uses to which we put them, and we consider them as related in various ways."* In answer to this, it is sufficient to say that if a number of different qualities in two or more objects affect the mind at the same instant of time, the mind must know them to be different; though it is very possible its attention, for some reason or other, may be directed to some of these more than to the others. Thus, in the example given, when we perceive a horse and a sheep at the same time, we always perceive them both to agree and disagree, and that in as many particulars as our organs of sense comprehend. Thus, if we perceive their colour, as we generally or always do, we perceive that in that respect they differ to a less or greater extent; if we perceive their magnitude, we see that in that also they differ; and so in respect of their shape or any other property to which our attention happens to be turned. I believe we never see these two animals together without perceiving them to differ in all these respects and in others besides, in addition to our recognition of many points of resemblance; for the mind is more rapid, sweeping, and comprehensive in its comparisons than we ourselves suspect. It is true, as Dr Brown says, that we may judge differently of them at different times; but that arises

* Lecture xxxiii.

from our attention being more directed, or our senses more fixed, at one time than another upon some particular point. In regard to the functions and uses of the horse and sheep referred to by Dr Brown, it will readily occur to every one that these are not the objects of sense, and accordingly that we may see the animals without these occurring to the mind; but if they should occur, we shall as readily, by the help of memory, recognise them to differ in these respects as in those mentioned before.

The only other argument urged by Dr Brown is the following:—"Were we to show to a peasant, absolutely unacquainted with the very elements of geometry, diagrams representing two right angles and a plane triangle, he might certainly, though he could not give them names, perceive these figures as clearly as the most expert mathematician. Everything which mere sensation could do in this case would be the same in both, and nothing could be added to the primary sensation, since everything is said to be actually involved in the sensation itself. Yet, with all his accurate perception of the figures, however clear and varied and lasting, the peasant would not find in this immediate perception the equality of the two right angles taken together to the three angles of the triangle, or any other geometrical relation. The comparison, then, and the belief of a universal truth of proportion which results from that comparison, are certainly something more than the mere sensation."* This argument, though it looks formidable, does not really touch the point at issue. Judgment may be resolved into its original elements of sensation and memory, and yet a peasant, with good eyesight, may not be able to demonstrate every possible mathematical proposition. Though all knowledge be traceable to sense, and comparison be involved in the mind's consciousness of different objects as different, it does not follow that we shall, by

* Lecture xxxiii.

simply looking at any object, instantly discover all its properties and relations. Let us turn the point of Dr Brown's argument against himself. Let us suppose his peasant to be gifted with a faculty of judgment as clear and penetrating as that of the mathematician : though thus gifted, he does not at once discover the equality of the three angles of a triangle to two right angles. An ingenious and intricate process of reasoning is necessary to the discovery. Yet the failure of the peasant does not prove that reason is a faculty different from judgment ; and neither does his failure in the other case prove that judgment is different from sensation.

But let us examine the argument still more minutely. The equality of the three angles of a triangle to two right angles, may be considered either as true only with reference to the figures present to the senses, or as universally true. In the former case, the senses alone are adequate to the discovery. A very simple series of material, visual comparisons will reveal the truth. Comparison may be assisted by collocation ; for in many cases where either resemblances or differences are not very apparent, the senses require to be thus assisted. But if the senses, by any method and with any appliances, can discover—I do not say demonstrate—the equality referred to, there is no room for another and higher faculty to do what has been done already.

In the latter case, it must be remembered that the mathemathics are not a science of real truth, but merely of consistency. They are not based upon asserted sensible facts, but upon certain axioms and definitions which are taken for granted. The axioms and definitions being held as true, all the problems and theorems are shown to be consistent with them. The axioms and definitions being universal, the conclusions deduced from them are shown to be universal too. The source of the universal truth of every mathematical demonstration is to be found in the axioms and definitions

from which it flows, and these are not proved, but assumed. Every mathematical demonstration, even the most lengthened and intricate, is only a consecutive series of simple comparisons resting upon primary assumptions. These comparisons are not of sensations, but of ideas furnished by memory ; for memory plays a conspicuous part in mathematical demonstration. But as with sensations so with ideas ; when they differ, the mind necessarily knows them to differ in the very act of consciousness. In every step of a rigid demonstration there is a reference to some axiom, some definition, or some proposition already proved; in other words, there is an appeal to memory. The meaning of the appeal is—You have granted the truth of this already, you will grant it again. AB and CD are each of them equal to EF, and therefore (Ax. I.) they are equal to one another. In short, in mathematical reasoning there is an incessant mental measurement of things to be proved with things which have been proved, and the consciousness, taking both in its grasp, necessarily perceives their equality or inequality.

This explication may in fact be deemed superfluous, for mathematical reasoning is not different in kind from logical reasoning, and psychologists are now united in regarding reason as reducible to judgment. "Reasoning," says Dr Brown, "is found, when analysed, to be nothing more than a series of judgments." "In regard to the act of reasoning," says Sir William Hamilton, "nothing can be more erroneous than the ordinary distinction of this process, as the operation of a faculty different in kind from those of judgment and conception. Conception, judgment, and reasoning are in reality only various applications of the same simple faculty—that of comparison or judgment." These great masters in metaphysics have thus cleared the ground for me, and made the way to my conclusion open and easy. I have already shown that simple comparison is involved in the most rudi-

mental act of consciousness—that when the mind is possessed of two differing or two resembling ideas, it is necessarily conscious of their difference or resemblance; and Brown and Hamilton, though disagreeing in almost everything else, have agreed in declaring that by a series of the most simple comparisons we may arrive at the most profound conclusions. They have reduced reason into judgment; I have reduced judgment into its simpler elements of sensation and memory.

The conclusion to which we have come does not infringe upon man's power of reasoning and judgment—does not deny the reality of these acts of the mind. Such a conclusion were in the face of fact. It were an absurd philosophical fulfilment of Anthony's declamation over the dead body of Cæsar—

> "O judgment! thou art fled to brutish beasts,
> And men have lost their reason."

The existence of reason and judgment is not denied; it is only denied that they are the produce of a special faculty. They are involved in sensation and memory. These two simple faculties are competent to the most elaborate processes of argumentation, and it is useless to evoke another faculty to perform functions which are performed without it. In the obvious proposition that different objects must affect the mind differently, a deathblow is struck at the old orthodox doctrine, for here is comparison without the interposition of a faculty of judgment.

# CHAPTER VI.

## *THE SENSES.*

I HAVE now cleared the way for considering the different mental faculties and affections in the light of the new theory of knowledge which I have explained. And first, sensation. Sensation is our knowledge obtained through the senses. It is a state of consciousness, and, as such, a state of knowledge; and the thing which we know or are conscious of is always something distinguishable from the knowing or conscious mind. I have already alluded to the opinions of Reid and Sir William Hamilton. They regard sensation simply as a feeling, as contradistinguished from the knowledge which they say is got in perception. I regard the feeling as the knowledge. We know nothing but what we feel or are conscious of. Brown defines our sensations as "those mental affections which are immediately successive to certain organic affections, produced by the action of external things."* There is nothing expressly wrong in this definition, but it looks at the matter in a too purely mechanical aspect, and one would never learn from it that it involved consciousness or knowledge, which is the vital idea involved in anything mental. Dr Bennet, in his "Text-Book of Physiology," says, "sensation may be defined to be the consciousness of an impression." By this Dr Bennet means that sensation is the consciousness of a bodily or organic impression, the influence of which is carried to the brain by the sensory nerves. It must be noted, however, that an impression is not an entity which can

* Lecture xviii.

in itself be known or consciously felt: it is simply the relation between the impresser and the impressed. Dr Bennet must, therefore, hold that in sensation we are conscious only of our organs of sense impressed; that in sight we simply see our own pictured retina; that in smelling we simply smell our own olfactory nerves in a state of excitement; or that we are conscious of the objects which impress our organs of sense; in which case he has the true doctrine. The term sensation applies to every state of consciousness which comes through a bodily organ. It is in every case a knowledge of something outside the knowing mind. But it is not always a knowledge of something outside ourselves, as compound beings made up of soul and body. Our most definite sensations come to us through the five senses, and they come chiefly from the external world; but besides these, we have myriads of sensations from the physiological functions, and pathological conditions of our own bodies, and the true ego comprehends body as well as soul.

Let us first examine, one by one, the five special organs of sense.

*Smell.*—The organ of smell is placed in the cavity of the nose, more especially in the upper part of it. The membrane spread over this part is called the pituitary or schneiderian membrane, and the nerves which connect it with the brain are called the olfactory, and these, springing from a remarkable ganglion called the olfactory bulb, are supposed to terminate in peculiar cells, called the olfactory, which are intermixed with the proper epithelial cells of this membrane. Odours reach us through the medium of the air, and mixed with it, and from the organ being placed in the nostrils, through which we are constantly inhaling the atmosphere for the supply of the lungs, we snuff up every odorous particle that comes within reach. Such is the apparatus; let us see how it acts. When an odorous body is presented to me, I smell it.

That is the whole fact. There are the two factors—the I smelling, and the odorous body smelt. Between these two there is no third thing called the sensation of smell. It may be said we do not smell the odorous body—say the rose—but the fragrance which comes from it and strikes the olfactory cells. Be it so; still, as the fragrance comes from the rose, through it we smell the rose itself. It may be said the mental feeling can have no possible analogy to the material particles which enter our nostrils. I reply, there is no such thing as a mental feeling; there is only the I smelling and the odorous particles smelt. The I—the smeller—is of course quite different and distinct from the particles smelt.

When we smell an odour, we know it; our smell is our knowledge of it, and our only possible knowledge; for we never can acquire a knowledge of the objects of sense but in the way provided by nature, to wit, by the senses. If asked how all this is brought about, we must hold down our head and confess our ignorance. All we know is, that the fragrant particles touch the sensitive organ, and the sensational consciousness is awakened.

There is an infinite variety of smells, but they have never been classified, and no language contains a vocabulary of them. We generally call them after the bodies in which they inhere—the smell of a rose, of wallflower, of paint, of turpentine, of a musty or a putrid body. Some are pleasant, others disagreeable, others sickening. Here, it may be said, there is a new fact: in such sensations there is not only the knowledge of the odour, but the pleasant, or unpleasant, or sickening feeling. I accept of the statement, if by it is simply meant that we not only discern the peculiar quality of every odour, but feel it as affecting us pleasantly or otherwise. Properly, we cannot be said to feel pleasure or pain or sickness; for pleasure, pain, sickness are themselves feelings; but we may be pleasantly or painfully affected; or, in other words, pleasure, pain, or

sickness may form part of our conscious state, when any odour comes into contact with our organ of smell." When sickness is felt, it generally arises not directly from the smell, but from some mental association connected with it; in other cases, perhaps, from some connection between the organ of smell and the stomach, which it belongs to the physiologist, and not to the psychologist, to trace.

*Taste.*—The sense of taste is spread over the greater part of the tongue and palate. As the organ of smell keeps watch and ward in the nostrils over every breath of air that goes to the lungs, the organ of taste is placed as a sentry at the narrow pass which commands the stomach, and challenges every morsel of food, every drop of liquid, that seeks to enter. When a sapid body comes into contact with the tongue or palate, we discern its taste, and in this is our knowledge of the taste, and our only possible knowledge. There is not first a sensation and then a consciousness of the sensation: the sensation and the consciousness are one; and the sensational consciousness or conscious sensation which we have is of the sapid property in the body. It is the material quality which causes the mental affection we call taste.

There is an infinite variety of tastes, but there is nothing in which our language is more deficient than in words to express them. The designations we have are generally similitudes, and some of them are sufficiently absurd. How ridiculous to speak of a wine as being dry! We have a few general predicates, as sweet, sour, bitter, descriptive of tastes; but ordinarily we are compelled to describe tastes by a reference to the substances in which they are found.

Professor Bennet remarks that "the pungent sensations of mustard, pepper, &c., are owing to the excitation of touch, and should be separated from those of taste."* I apprehend they are rather due to the excitation of the sense

* Text-Book of Physiology.

of taste, for there is always a discernible taste, however pungent; and such substances placed upon other parts of the body, however tender to the touch, will never produce such sensations. Some substances, however, may irritate the nerves both of touch and of taste, and so produce a compound sensation. In every case, the state of the organ or organs produces a co-ordinate state of mind; and between the two—the feeler and the thing felt, the taster and the tasted—there is nothing.

Taste and smell are more akin than any of the other special senses. We can roughly tell the taste of some things by their smell, and the smell of some things by their taste. It is not without reason that some wines are said to have a fine "bouquet;" in tasting them we seem to smell them: it is not without reason that the hungry boy hangs on about the door of the cook's shop, for if he does not dine on roast-beef, he can at least enjoy its flavour by feeling its smell. Smell, or at least the passage of air through the nostrils, seems to be almost essential to taste; for by closing the nostrils we almost destroy the sense of taste.

*Hearing.*—The organ of hearing is the ear, which is quite as wonderful in its structure, and even more complex in its arrangements, than the eye. The sonorous vibrations which are the object of the sense strike upon the membrana tympani; they are propagated along a chain of bones to the labyrinth or inner ear, whence they are carrried by membranes and lymphs till they reach the auditory nerve, by which the ear is connected with the brain. But while this is the usual course, these sonorous vibrations may reach the inner ear through the bones of the head, without passing through the outer ear at all, and, in fact, finer undulations are heard in this way than the other. The vibrations of a musical pitch-fork, though inaudible when it is placed close to the outer ear, can be heard when it is taken between the teeth. In this sense, as in the others, there are only the hearing ear and the sound heard.

There is not first the sonorous vibrations producing a sensation, and then the mind conscious of that sensation; the sensation is identical with the consciousness, the consciousness is identical with the mind; and thus we are reduced to the primitive dualism, the mind and the mind's object. We hear in very deed the voice of our friend, the notes of his flute, the ring of the bell, the report of the gun. It has been argued that the vibrations of the air are not sound; that sound is purely mental; and that as it is the sound we hear, we have in this instance the mind conscious of its own affections. In answer to this, I think it must be sufficiently clear, from what I have already said, that in this case, as in the others, there is nothing but the mind hearing and the sonorous vibrations heard. We may refuse if we please to call the sonorous vibrations sound, but nevertheless it is them we consciously feel or hear; we may apply that term to the mental affection, but the mental affection is only the mind hearing, and no one would say that the hearing mind is sound. If that which we hear is sound, sound is nothing different from the sonorous vibrations or undulations which cause the sensations. Misled by old habits of thought and speech, some may have a difficulty in believing that what they hear is undulating air; but it is not more unscientific to say that we hear the air vibrating, than that we hear our friend speaking or the wind blowing. There are the two things, and only the two—the knower and the known; and these, instead of being identical, are as far as the poles asunder.

Our sensation of sound is our knowledge of it, and this knowledge is immediate, and, so far as it goes, complete. In no other way can we gain a knowledge of sound but by the sense of sound. It must be noted, however, that the organ conveys to us simply the sound, and not the knowledge of whence it comes, or how it is caused. We hear a sound, and

hearing it, know it, but we do not know till we learn from experience that it is caused by the blowing of a horn. The sound, as it reaches the auditory nerve, is therefore the true object of hearing, and beyond this the sense gives us no information, but we gradually learn the different sources of sound, the direction in which it comes, the distance at which it is heard.

What is called a musical ear implies more than a mere sensational consciousness of sounds. The man who has not the gift hears the sounds as clearly as the man who has, perhaps more so; but he does not feel the musical relations of sounds; he cannot discriminate between chords and discords; keenly sensitive to the sounds themselves, he is deaf to their musical properties, and to all that constitutes melody and harmony. It is perhaps a higher development of the sense, by which we are percipient of qualities in sound which are unheard by the common ear, as the man with the perfect eye discerns gradations of shade and colour which are invisible to others. The ordinary ear hears the sounds, the musical ear discerns their musical properties.

*Sight.*—The eye is the organ of sight, and light is its object. This organism, which transcends all other optical instruments, consists of four different lenses, viz., the cornea, aqueous humour, cystalline lens, and vitreous humour, by which the light is transmitted to the retina or flattened termination of the optic nerve. There a minute inverted picture of all which comes within the range of the eye is painted, just as we see it in the dim glass of the camera obscura. At this point the physical fact, so far as we can trace it, ends, and there probably the psychical fact begins. There is light, and we see light. It is the light, by whatever media it is communicated, which makes the mental impression; and as "mental impression" can mean nothing but consciousness, we say properly that it is of the light we are conscious. There is nothing between the light and the seeing mind, not even the

organism, for the organism is only the channel of transmission.

It is by this sense we obtain our knowledge of colours, for colours are just reflected light. In no other way could we obtain this knowledge, and accordingly the blind can have no knowledge of colours, and, in fact, no conception of what colour is. The poor blind man, after getting an elaborate description of scarlet, thought it must be like the sound of a trumpet. The knowledge which we thus obtain is immediate, and when the organ is healthy, it is complete. There are many cases, however, of colour blindness. There are some persons who cannot discriminate one colour from another, as the musically deaf cannot discriminate one note from another. They see everything black and white, like the light and shade of an engraving. There are others who cannot discriminate neutral tints, as brown or grey ; and others who confound blue, red, and yellow with purple, green, and orange. Red, blue, and yellow, it is said, are never confounded, while red and green often are. This partial blindness must be owing to some imperfection in the organ, for the seeing mind sees its objects as they are given to it by its organ of vision.

When the organ is diseased, we see objects discoloured, distorted, or thrown out of their proper position. When the brain is diseased or unhealthily excited, we sometimes see spectres ; strange forms flit before our vision, and have apparently all the attributes of reality. In the first case, we see the objects as they are brought to the mind by the organ optically distorted ; just as with a healthy eye we might see them twisted by looking through a badly-ground lens. In the second case, we in reality see nothing, for there is nothing to see ; but our excited brain gives to thought the vividness of reality, and seems to project it upon the outside world, as is done in sleep and dreams. Spectre-seeing, therefore, is not

a case of sensation, unless in so far as there may sometimes be an excited state of the retina and optic nerve connected with the illusions.

We cannot even for a moment open our eyes without gathering a vast amount of knowledge which does not properly belong to the sense of sight. I have said colour is the only proper object of this sense, and yet we see, or seem to see, not only the colour, but the distance, size, and shape of the objects which surround us. But this is a happy delusion, and the knowledge which we thus get at a glance is not sensational, but the result of mental associations dependent upon experience. It is only the colour of the objects which we see, but the various shades of that colour suggest to the mind their distance, size, and shape. These shades become the signs by which we at once recognise many facts which are truly invisible, and in time we mistake the signs for the things signified, and imagine we see what we do not really see. We fancy we see that an object is spherical, whereas we only see a plane surface shaded in such a way as at once to suggest to the mind that it is a sphere. Berkeley and other philosophers have demonstrated this in such a way that it can hardly be doubted; and the illusions of the stereoscope, in which we see objects on a plane surface standing forward in relief, or shrinking back in perspective, give a pleasant illustration of the fact. Dean Swift has humorously said with reference to this, that vision is the art of seeing things which are invisible.

Does vision involve a knowledge of extension? Psychologists of the ideal school say no; but colour cannot exist except as extended, and we cannot even conceive it but as spread over some space. If colour necessarily involves extension, a knowledge of the one involves a knowledge of the other. If it can exist only as extended, we can know it only as extended. The whole theory I have explained involves the fact that we sensationally know things immediately—

directly—as they are; and therefore, if colour exists as an extended surface, we must know it as such. If a piece of white paper be brought close to the eye, we have a dull sense of colour, and perhaps as near an approach as may be to colour without extension. But even in such a case we see the colour as extended, though certainly not so sharply defined as in other cases, when we look at objects at a little distance, no one occupying the whole field of vision, but all in bold contrast to each other.

I have stated that metaphysicians and opticians have proved that in vision we see only colour variously shaded, and not the distance, shape, or magnitude, of objects. These we learn by experience. But it is very curious that the chicken has scarcely walked forth from its shell till it shows by its movements that it knows all about these things. How is this? Does it see what its eyes, according to all optical rules, cannot see? Does it understand a language of symbols which has never been explained to it? Has the creature innate ideas? It is not enough to say that it is guided by instinct, for what is instinct in such a case as this? It is not enough to say, as Dr Carpenter has said, that it may have inherited the information from its ancestry—stamped upon its brain. For it is plain the first chicken must have had this knowledge as well as the last, or it would have perished miserably in its chickenhood. And besides, while it is easy to understand transmitted capabilities and tendencies, it is not so easy to understand transmitted knowledge. If a certain gradation of colour at once suggests a round shape, it is more than our philosophy can explain.

*Touch.*—This sense is spread over the whole skin, which forms (with slight exceptions) the vesture of the entire body. Among the myriads of papillæ which project from the true into the scarf skin, there are some, in certain situations, which contain remarkable bodies called touch-bodies. They have

some resemblance to the form and spiral markings of a fir-cone. A nerve enters their base and passes into their interior, and it is understood they constitute the true organ of touch. The nerves of common sensibility connect them with the brain —the great central nerve force. But while sensibility to touch is thus spread over the whole body, in some places it is much more acute than others. From experiments which have been made, it appears to be most acute at the point of the third finger and the tip of the tongue, and least acute at the nape of the neck and the middle of the arm, back, and thigh. So many sensations reach us through this sense, and these so various—hardness, roughness, solidity, figure, extension—that psychologists have not been accustomed to group them all under one head. But we have seen that all the other senses have each its own specific object, and I think it is so with this sense too. By touch we become acquainted with the palpable. It may be said that this is merely a play on words, indicating only that by touch we know the touchable. But the same may be said of all the other senses and their objects, as indeed there must be a complete correspondence between the sense and its object. By taste we know tastes, by smell smells, by hearing the hearable, by sight sights, by touch the touchable. Hardness, roughness, solidity, figure, extension, &c., may all be grouped under the head of the palpable or tangible; and what we thus designate is quite different from the objects of all the other senses. Smelling, hearing, seeing, could never give us a knowledge of the palpable, as touch could never give us any information about smells, sounds, or sights. And as the knowledge which we get through this sense is peculiar, so it is, as far as it goes, perfect. We can never add to it—that is, to our knowledge of pure palpability—by the help of the other senses, for each sense keeps strictly within its own province; and reason never intrudes into the domain of the senses.

The subjective philosophers have been sorely exercised to account for our idea of extension. It is not got, they say, by sight, it is not got by touch; we have it, but how we have it is a puzzle. Their perplexity is the result of their system, and if their system be true, the riddle is certainly insolvable. When an extended substance—say a cube—is brought into contact with our hand, we have, they argue, a sensation; but that sensation is purely mental, and mind has no extension or configuration; a sensation cannot be square or round or triangular, and as it is of the sensation, and of the sensation only, we are conscious, we cannot possibly in this way obtain any knowledge of these material properties. The same argument can indeed be applied to all our other sensations. A sensation can have no smell, or taste, or sound, and as it is of our sensations only that we are conscious, we never can through our sensations be conscious of these things. But the argument is generally confined to what are called the primary qualities of matter. Our sensations are not extended, it is said; we are conscious only of our sensations, and therefore we cannot sensationally know extension. Reid urges this with as great vigour as Brown and the pure idealists. "It is true," he says, "we have feelings of touch, which every moment present extension to the mind; but how they come to do so is the question; for these feelings do no more resemble extension than they resemble justice or courage; nor can the existence of extended things be inferred from these feelings by any rules of reasoning; so that the feelings we have by touch can neither explain how we get the notion, nor how we come by the belief of extended things." *

And speaking of the feeling of hardness when a table is felt, he says, "The one is a sensation of the mind which can have no existence but in a sentient being, nor can it exist one moment longer than it is felt; the other is in the table,

* Inquiry into the Human Mind, chap. v. sect. 5.

and we conclude without any difficulty that it was in the table before it was felt, and continues after the feeling was over. The one implies no kind of extension, nor parts, nor cohesion; the other implies all these. Both indeed admit of degrees, and the feeling beyond a certain degree is a species of pain; but adamantine hardness does not imply the least pain. And as the feeling hath no similitude to hardness, so neither can our reason perceive the least tie or connection between them. Nor will the logician ever be able to show a reason why we should conclude hardness from this feeling rather than softness, or any other quality whatsoever." *

Poor honest Reid! with all the good-will in the world, he was utterly unable to free himself from the meshes of idealism, in which he is here hoplessly entangled.

Even Sir William Hamilton, confused by his belief that the mind is conscious only of its own affections, and bewildered by a case which he quotes from a German physician, Platner, doubts if we get our knowledge of extension by touch, and is inclined to attribute it entirely to vision.

We have thus the human soul in its prison-house, shut out from space, incessantly revolving its own sensations, but unable to learn from these anything of the great unknown without. But notwithstanding its seclusion and darkness, it persists in having certain ideas of extension, and how are these to be accounted for? Here is work for the psychologists. Brown with much labour showed that it might have ideas of succession—ideas of time—and that out of these it spun its idea of space. Bain and Mill, adopting to a considerable extent the theory of Brown, and adding with immense ingenuity and pains certain theories of their own as to how the isolated soul may attain to a conception of motion, show how by time and motion extension may be begotten, as the ancient æons, according to the Gnostics, curiously propagated

* Inquiry into the Human Mind, chap. v. sect. 5.

one another. Now, I think it will at once occur to every one, that the notion of time, though obtained in the way described, could never help us to the notion of space, as the two notions are *toto cœlo* different from one another. And it will also occur still more readily to all who have ever thought of these subjects, that it is impossible for any one to have an idea of motion without having already an idea of space, as motion implies space in which to move.

Let philosophers labour as they please, if we are conscious only of our mental affections, we never can know material properties, and in truth can have no conception of them. Let it be granted that mind is different from matter; that our sensations are mental states, that we are conscious only of our sensations; and it follows, by the strictest logical sequence, that we never can know anything, or even conceive anything, of matter or its properties. There is nothing in the mental to suggest the material; there is nothing in the feelings of the one, as has been proved a thousand times over, which can have the faintest resemblance to the properties of the other. The solitary soul must be left to chew eternally the cud of its own sweet and bitter ideas, thinking, yet thinking of nothing, feeling, yet feeling nothing. But let us get rid, root and branch, of this absurd idealism, which has puzzled the world too long. Let the soul look out upon the world, and see it as it is, feel it as it is. Let the eye see the extended surface—let the hand feel it, and feeling it we shall know it.

The sensation we have when we touch an extended object, says Reid, is no more like extension than justice or courage. What is this sensation of touch? It is the I touching—nothing else. The I touching the extended object is of course unlike the extended object; but touching it, it knows it. Its touch is its knowledge. There is no sensation between the mind and its object; and therefore neither likeness nor unlikeness can be predicated of that which is not.

A sensation cannot possibly be extended, says Brown. This looks like a truism, but I am not sure that it is true. Before I am done I shall endeavour to prove that consciousness is spread over the whole nerves of sensibility, and if consciousness be thus diffused, so is sensation. But in the meantime, I have only to ask the reader to reserve his judgment till I discuss the subject at length.

Though touch gives us a knowledge which is peculiar, and in a way complete, it is not enough we should merely touch a thing to know at once all its tangible qualities. By handling it, feeling it on every side and in every way, applying our prehensile and tactile organs to its edges and surface, we gather more and more knowledge of it, by having more and more sensations of it. Thus we learn to know it in itself, and also to discriminate it from all other things—just as we learn to discriminate one taste from another, or the odour of a rose from that of a lily. The sense, moreover, can be trained to discern the nicest differences. This is conspicuously seen in the blind, with whom touch supplies, in a large measure, the place of sight. By the tips of their fingers they read the raised letters of their books, and pursue their intricate basket-work.

From what I have said it would appear that we gain a knowledge of extension both by sight and touch; but the knowledge is different, as seeing is different from feeling; in the one case we see colour extended, and in the other feel some palpable thing extended.

Our knowledge of a rough unequal surface would appear to be got primarily from touch, but we learn afterwards to distinguish such a surface by the eye, from the varieties of light and shade which it presents. These diverse knowledges which we thus derive from these two senses, though different, are yet closely allied. We cannot feel an extended surface without thinking of its visual appearance, nor look at it

without thinking less or more of its touch. Perhaps vision is the dominating sense, as it is it we generally use. But though the two senses are thus auxiliaries, each has its own province, out of which it cannot pass. Touch could never teach us anything of visual appearance; vision could never convey to us the most remote conception of tangibility. The blind man couched by Cheselden could not at first recognise by sight objects with which he was perfectly acquainted by touch. He did not even know the cat when he saw it. But he soon learned to know what sights corresponded with what touches, and henceforward the one sense became a helpmeet to the other.

The five special senses furnish us with our most definite sensations, and with almost all our knowledge of the external world. But they by no means exhaust our capabilities of sensation. We have myriads of sensations which come through no such channels, but which arise chiefly from certain conditions of our body. We have sensations of hunger and thirst, of heat and cold, of sickness, of weariness, of weight.

Some psychologists have endeavoured to resolve all these into the sense of touch, and, in a general way, they may be brought under this sense, as all the other special senses may, inasmuch as there always must be some kind of contact in order to sensation. But in all such sensations as those I have referred to, there is no perception of the palpable, which, as I have already said, is the true object of touch. The sense of cold or of hunger involves as little knowledge of the palpable as vision or smell. Other psychologists have assigned to each of these sensations a separate, special sense. And in one respect they are right, for not only is each of these sensations different from all others, but each is, in all probability, connected with a special nervous arrangement. But this may be remarked as common to them all, that they are cognitions not of outside objects, but of conditions of our own bodies. This statement, however, requires fuller illustration and discussion.

Hunger and thirst, heat and cold, weariness, sickness, are all mental states; being mental states, they are states of consciousness—in other words, states of knowledge. In such cases, being conscious, the question arises, of what are we conscious? Knowing, what do we know? feeling, what do we feel? It will not do to say that we feel hunger, thirst, cold, heat, for that would simply be saying that we feel these feelings. It is not only tautological, but nonsensical, to talk of feeling a feeling; it is equally so to talk of feeling hunger, which, as I have already said, is a mental feeling. Yet we constantly speak of feeling hunger, and it is certain that, being hungry, we feel something. What is this something; for in this case, as in all others, there must be the dualism—the feeler and the thing felt—the knower and the thing known. My answer is, that in all such cases as those I have alluded to, we know, we feel certain organs of our bodies in certain not easily defined conditions. We do not thus know their colour, for that is the function of vision; nor their smell, nor their configuration, nor their size, for that belongs to other senses; but we know them as existing in a vital state different from all this—in a state which is the special object of this special sensation. And it must be noted that body in a certain state is the object of every sense, and conversely that every sense has a certain specific state of body for its object. In all internal sensation, then, we are sensible of some organ or organs in specific conditions; or, I might say, of some specific conditions of our bodily organs.

But it may be said, that in the case of heat and cold, at any rate, the acting agent is entirely outside of ourselves, and that what we feel is the state of the atmosphere, and not merely the temperature of our bodies, or the condition of certain nerves dependent upon that temperature. It may be urged that the temperature of the air affects us as sensibly as the odour of plants and flowers, and that here we have a special

sensation, with a special outside object. The truth of this must be granted; but at the same time the following curious facts must be noted. The body in health manifests a uniform temperature of 98·2; but while this bodily temperature is thus steadily maintained, we may feel every degree of atmospheric temperature. When, in the height of a fever or in the collapse of cholera, the temperature of our body rises or falls, our sensations are entirely different from those arising from similar changes in the atmosphere; in the latter case, as well as the former, there is a feeling of oppression, though not of the same kind. Again, when we have a local inflammation, the slight increase of the temperature at the spot is accompanied by a violent feeling of heat; and in the cold stage of ague, the temperature in the axilla is said actually to increase, while the patient shivers and feels deadly chill. All these strange facts seem to prove that the temperature of our body has little or no influence upon the nerves of atmospheric temperature (supposing there be such); or if it has, that the mental feeling is different and often non-correspondent; and it seems further to prove that the atmospheric temperature affects these nerves only at their peripheral extremities spread over the surface of the body. This may be otherwise expressed by saying that the body, whatever its own temperature, feels over its whole surface the temperature of the surrounding air; and that there are two sets of sensations, one dependent upon the temperature of our body, and the other upon that of the atmosphere. The latter may be justly ranked under a sixth special sense, giving special information of the outside world.

Here I must bring into greater prominence a fact already hinted at—that according to the degree in which our senses are provoked, a feeling of pleasure or pain enters into the sensation. This is the case with all our senses—it is peculiarly so with touch. If I put my hand gently upon the table, I

feel it—that is all: if I knock my knuckles sharply against it, I am said to feel pain. Dr Reid says I truly feel pain, and not the table at all. I venture to affirm I feel the table as before, but I feel it painfully. My knuckles have been hurt by the contact, and their irritable condition enters into the sensation, and not only modifies it, but it may be almost entirely overlays the original impression. The consciousness of the irritated knuckles is stronger than of the hard table, and moreover, the former remains long after the latter is removed. Our muscles, veins, bones, these are themselves the objects of consciousness; but though every group of nerves probably receives different impressions, and therefore may be said to give a peculiar kind of knowledge, that knowledge is so indefinite and obscure—especially to those who are not always unhealthily studying these inner intimations—that all we conspicuously observe is a certain degree of pleasure or of pain. When pleasure or pain thus predominates in a sensation, we generally say that we feel rather than know, and the distinction is not without meaning; but we must ever insist upon our fundamental theses, that all consciousness implies an object other than itself, and that all consciousness is knowledge.

It is certain that myriads of sensations are continually crowding upon us from every part of our sensory system. They come from without—they come from within. They come trooping, like soft-footed ghosts, from every organ and along every nerve. It has, indeed, been remarked as curious that we have so little internal consciousness—that so many processes, mechanical, chemical, vital, are all going on within us, of which we have no perception. The heart is continually contracting and dilating, but in sound health we hardly feel it; the stomach is ever carrying on its analytic chemistry; every artery is conveying its current of blood through the frame; every gland, like a little laboratory, has its busy pro-

cesses of secretion actively going on, but it is all unnoticed and unknown by us. This is true poetically, but not philosophically. The machinery of life works with such marvellous smoothness that we hardly feel its motion, but feel it we do; and with such continuity that the strangely compounded sensation which comes from every part of our system, from birth to death, seems just a part of our being—a necessary element in that continuous self-consciousness which every man has. But let any wheel in the machinery stop or go wrong, and we instantly feel the difference. Let a single artery be surcharged with blood, let a single gland cease to secrete, let a single duct refuse to do its work, and we have a feeling of oppression, of uneasiness, of sickness—a feeling which is purely sensational, and which shows that the mind is sensitively alive to everything that goes on. Thus, then, on the pictured canvas of consciousness, besides the figures which occupy the foreground and come from without, there is ever a crowded background, duller and more indistinct, formed of sensations which come from within. These ever-present sensations constitute our self-consciousness; but this intelligible fact must not be mistaken for the unintelligible, inconceivable, and impossible dream of the philosophers, that the mind in feeling feels itself.*

* Mr Lewes, in his "Physiology of Common Life," calls these sensations systemic consciousness, in contradistinction to what he calls sense-consciousness and thought-consciousness, and remarks that our sense of existence very much depends upon it; and in this he is undoubtedly correct. In this division of the senses he entirely agrees with Kant, who classifies all our bodily senses under a vital sense (*Sensus Vagus*), and an organic sense (*Sensus Fixus*).

# CHAPTER VII.

## *THE SEAT OF SENTIENCY.*

Before we leave the subject of sensation, there is an important question which we must discuss—What is the true seat of sensation? The head is generally regarded as the seat of intelligence—"the dome of thought, the palace of the soul." Physiologists go further, and with an almost unanimous voice declare the cerebrum to be the organ of memory and reason; the sensory ganglia which lie along the base of the skull, to be the organ of sensation. Dr Carpenter, whose great name gives weight to everything he says, believes that while intellectual processes are elaborated in the cerebrum, they are consciously felt only in the sensorium. The almost universal opinion, then, of the learned, and also of many among the vulgar, is, that all consciousness is confined to the brain; that not only are all intellectual processes carried on there, but that all sensations are felt there. And yet, in defiance of this speculative opinion, every one, learned and unlearned, is conscious of having sensations, not in the head alone, but in every part of the body. When my foot is burned, I feel pain in my foot, and not in the base of my skull. When I turn over the leaves of a book, I feel their surface, not in my brain, but with the tips of my fingers. All language is moulded according to this belief. We say we have a sore hand or a sore leg; we speak of having tastes in our mouth and sounds in our ears. Even physiologists, forgetful of their theory, discuss which parts of the body are most sensitive. Is all such language founded on a mistake?

Have men universally deceived themselves in regard to a matter with which they are above everything else familiar? And are we to believe, in spite of ourselves, that every part of our body is insensible to pain, and that the head bears the sufferings and enjoys the pleasures of the whole frame.

The chief arguments for the opinion which prevails in the scientific world are—(1.) That all the nerves of special sense can be traced to the brain; (2.) That if one of these nerves be tied or cut, sensation is destroyed; and (3.) That after a hand or foot has been amputated, we still imagine ourselves to have sensations in the fingers or toes which have been removed. These facts may be allowed, but they do not prove that all sensation is seated in the brain. They have been burdened with a conclusion which they are not able to bear. In regard to the first, there no doubt are nervous fibres connecting the different organs of sense with the brain; but that is not a proof that the sensation is felt in the brain, and not in the organ. In regard to the second, it is certainly true that if the communication be interrupted, sensation is unfelt; but that proves no more than that there must be an uninterrupted communication between the organ and the brain in order to sensation, not that the sensation is in the one and not in the other. In regard to the third, it may be a fact that pain is seemingly felt in a hand after its amputation, but that is no evidence that all sensation is felt in the brain, and only a proof that in certain peculiar circumstances we may be deceived as to the seat of a sensation. For the sake of this one delusion are we to believe that all our sensations are delusive? It were as wise to believe that every object of sight is a spectre, because certain persons with inflamed eyes have been deceived by spectral appearances.

In considering this question, it must be remembered that the mind is one and indivisible; but though one and indivisible, there is nothing absurd in believing that it permeates the

whole body, giving sensibility to every sensory nerve, and that wherever an object is felt, it is the mind that feels it. The mind is in this respect like the life, which, though one and indivisible, is also diffused through the whole living frame. Every man is in truth a lump of consciousness, just as he is a lump of life. It must also be remembered that the whole nervous system, comprehending the fibres of special sense, of common sensibility, and the convoluted mass which constitutes the brain, forms but one organ—the organ of thought and feeling. There are influences issuing from the central brain through all the ramifications of the nerves, and other influences flowing through the nerves in upon the brain. The whole machine must be in order before it will work. It is not to be expected that sensibility will continue in a nerve which has been separated from the organism upon which sensibility depends. We might as reasonably expect that a galvanic shock would be felt in our hands though there were no communication between it and the battery.

But if we are deceived, it may still be urged, as to the seat of sensation in the case of an amputated leg—if we feel excruciating pain in toes which no longer exist, may we not be deceived in every other case, and fancy we have sensations in our hands and feet, when in reality they are in our head? Now, as already remarked, though we be deceived in regard to the locality of sensation in such cases, this is very far from being a proof—it is not even a presumption—that all sensations have their true seat in the brain. And what is the amount of the delusion? The stump is sore, but the nerves which are severed there formerly went to the foot, and had there their chief sensibility; inveterate habit and belief cannot be destroyed at once; we replace the leg, and seem to feel the pain in its old locality. The tendency to indulge in the delusion is moreover increased by the fact that all our nerves are most sensitive at their extremities, and probably the nerves

which go to the foot have ordinarily little feeling at the middle of the leg, and now when these same nerves suffer severely where they had never felt before, we are for a time deceived. It is to be remarked that when the leg is removed we do not then feel the pain in our head. We ought to do so ; in truth, according to the theory of the physiologists, all our pains are headaches.

If it be the case that sensations are really and originally felt in the brain, and not in all the parts of the body to which the nervous system extends, how are we to account for the universal belief that sensations are felt in hands, feet, eyes, everywhere ? How shall this singular delusion be explained? That it exists is undeniable, how could it arise ? Nay, more, how could the mind discover that sensations felt in the sensorium proceeded from the different parts of the body. If I am pricked, or pinched, or burned in any part of my body, I know the spot, and can at once remove the annoyance; how can this be if the pain be entirely in the head ? If it be the pain that directs us to the spot, we should go to the head, and not to the unindicated place where the wound has been made. It will not do to say that we learn this through education. The young of all animals have the knowledge almost immediately after their birth : by what process do they reach so rapidly to so erudite a truth ?

Throughout the last paragraph, following the ordinary phraseology, I have spoken of sensations being felt. But, as I have hitherto maintained, strictly speaking sensations are not felt, cannot be felt. What we feel is the object of the sensation, the ray of light, the odour, the table pressing upon our hands, the floor in contact with our feet. It may indeed be said, as it is said by the physiologists, that the impression made by the object upon the organ is carried by the sensory nerve to the brain, and felt there; but there is no evidence whatever that the nerves are themselves insentient, and act only as carriers to the brain. Their structure as well as our con-

sciousness leads to the belief that the nerves of sensibility are sensitive to their objects, and more so at their peripheral extremities than at their connections with the brain. They are in truth continuations of the brain, connecting the central and peripheral systems; why should there not be sentiency at the extremity as well as at the centre?* But keep in mind that it is the outside object we are conscious of, and not the sensation, and the old doctrine as to the seat of sensation will hardly be maintained longer. It may seem reasonable to talk of sensations being felt in the brain, but no one will venture to say that tables and chairs are felt in the brain, though we continually speak, and that truly, of their being felt by the hands. In truth, the doctrine that all sensibility is centred in the skull, reduces itself to an absurdity; for it implies that all the rest of the body is insensible, that the eyes do not see, nor the ears hear, nor the fingers feel.

The fact that sensations exist where the material impression is made upon the sensory nerves involves the supposition of the mind being present at every part of the sensory system. Some people shrink from this conclusion as tending to destroy the unity and indivisibility of mind. But it involves no such consequence, any more than the belief that sensations exist only in the brain. The brain is extended and divisible, but that does not imply that the mind is so: neither will that inference follow if we say that the organ of mind is not the cerebrum alone, nor the sensorium alone, but the whole nervous system. The Great Spirit is understood to be present in every part of the material universe; why should

* The essential constituent of brain and other nerve centres is cells; and of nerves, fibres. According to Professor Turner, so close is the connection between nerve fibre and nerve cell, that the axial cylinder of the former is not only of the same constitution, but directly continuous with the protoplasmic matter of the cell. It is to be further noted, that not only (according to the same high authority) do the fibres connect the cells of the nerve centres with the peripheral end organs, but in all probability link together individual cells.

we hesitate to believe that the human spirit is present in every part of the human frame?

It was a maxim of the Aristotelians, in regard to the relations of mind and body, that the mind was the whole in every part, and every part in the whole—a maxim which, under a paradoxical form, probably conveys a great truth. Dr Brown, without dogmatising on the matter, inclines to the belief that there is no influence propagated from the organ to the brain before an object of sense is perceived. The brain and nerves, he strongly insists, are not separate organs, but are in continuity with one another, as much as different parts of the brain itself, and constitute together one complicated sensorial organ. It is as easy to suppose that sensation follows an impression on the organ as an impression on the brain; and he remarks that if this be true, it adds another case to the innumerable instances in which philosophers have laboured for ages to explain what did not exist, referring to the many hypotheses which have been framed to explain the manner in which impressions are propagated from the organ to the brain, and from the brain to the mind.* Sir William Hamilton is more decided than Dr Brown. "In place of holding," says he, "that the mind is connected with the body only at the central extremity of the nervous system, it is more simple and philosophical to suppose that it is united with the nervous system in its whole extent. The mode of this union is of course inconceivable; but the latter hypothesis of union is not more inconceivable than the former; and while it has the testimony of consciousness in its favour, it is otherwise not obnoxious to many serious objections to which the other is exposed."† Mr Lewes, in his "Physiology of Common Life," strongly maintains that consciousness is diffused over the whole nervous system, and brings a multitude of facts to corroborate his opinion; but in this opinion he stands almost

* Lecture xix. † Lecture xxix.

alone among physiologists. Yet physiology furnishes the strongest proofs of the fact. Let us look to some of these.

There are animals which have no brains, and which yet have consciousness. It is only vertebrated animals which have brains, properly speaking. Animals of the molluscous and articulated classes have none; they have only a number of nerve centres, called ganglia, in different parts of their body; and yet no one will now deny they are sentient. The old respectable Cartesian hypothesis that animals were but machines has long ago been exploded regarding the very meanest of them. When the hook is put into the worm, it wriggles in such a way as to show that the process is by no means agreeable to it. When a fly is transfixed, its violent buzzing intimates its agony. Considering that a bee has eyes, we may conclude that it sees—considering that it has feelers, we may conclude that it feels. Yet none of these animals have cerebrum or cerebellum, but only a number of nerve threads gathered together at certain points in nerve knots. We are thus forced to the conclusion that sentiency, as it exists somewhere, exists in these, and sentiency is just a form of consciousness.

But there is other evidence of the same fact quite as decisive. The whole cerebrum has been removed from some animals, and yet they have continued to be conscious. Experiments of this kind have been made upon pigeons and other fowls by Flourens, Longet, Dr Dalton, Dr Bennet, Dr M'Kendrick, and many others; and it has been found that the bird may live and perform the functions of life for weeks and even months without a particle of brain. I have seen several such experiments myself, and have no doubt whatever but that the brainless pigeon is sentient. I may transcribe the following observations from many made and noted down at the time. After the cerebrum had been removed, under the influence of chloroform, and the pigeon had recovered from the anæsthetic and the shock of the operation (which was

generally in about twenty minutes), it stood firmly, balancing itself sometimes on both legs, sometimes on only one, and breathed, swallowed, defœcated, and otherwise performed the ordinary functions of life, but was generally in a state of coma or sleep. When its eye was touched, it shook its head; when its bill was touched, it did the same. Having nearly fallen over to one side, it made an effort to recover itself, both by flapping its wings and moving its feet. It occasionally awoke, opened its eyes, and curved its neck as pigeons do. When the perch on which it stood was struck, it wakened up, but did not attempt to fly away. When the lamp was brought close to its eye, it turned its head toward it. When the hands were clapped it awoke with a start, but if this were repeated two or three times it ceased to take any notice of it. When its foot was touched it removed it, but replaced it; when the annoyance was continued two or three times it drew it up among its feathers, and stood on the other leg alone. It nodded in its sleep, and sometimes when it nodded too far, as both men and pigeons will occasionally do, it quickly woke in the effort to recover itself. When it was taken in the hand it struggled, but not violently, to be free; and when thrown in the air it flew, but came soon to the ground.

From all these observations I was convinced that the brainless pigeon, though comatose, saw, heard, and felt. That it felt, there cannot be the slightest doubt. I am even inclined to go further than any other observer, and say that in some of the facts above referred to there was evidence of memory and judgment as well as of sensation. When I touched the foot, as I have stated, the first time, it simply lifted it and immediately replaced it: when I did so a second or a third time, it drew it up among its feathers in true fowl fashion, and did not put it down again. It must have *remembered* the first annoyance, and *judged* it wise to avoid it. Again, when a sharp noise was first made by clapping the hands, it started

up; and when it was repeated, it slept on. Here again it must have remembered the first noise, and when it heard the second, come to the conclusion, perhaps, that there was no cause for alarm. Nor is there any absurdity in supposing that a bird without a cerebrum should have some remnant of memory and judgment, for there are great classes of animals, as already stated, which have no brains from their birth, and yet they have certainly both these faculties in a rudimentary form.

It is well known that many animals of the lower classes may be decapitated, and the headless trunk exhibit all the usual symptoms of sensibility. Every one has seen this exhibited by the insect tribes, but it holds in regard to somewhat higher forms of life. If a frog be decapitated and its toes pinched, it will withdraw them exactly as it would do if it were still in possession of its head. If a little acid be poured on one of its limbs, it will wriggle and endeavour to remove the irritant by rubbing the one limb against the other, and if it fail in one way it will try another. No one can see it without being convinced that it feels: in truth, no one can see it without being convinced that though it has lost its head it is yet equal to the emergency, and can very deftly apply means to an end.*

* "Pflüger," says Dr Maudsley, "wetted with acetic acid the thigh of a decapitated frog over its internal condyle; it wiped it off with the dorsal surface of the foot of the same side: he thereupon cut off the foot, and applied the acid to the same spot; the animal, as though it were deceived, as the man who has lost a limb at first is, by an eccentric sensation, would have wiped it off again with the foot of that side, but of course could not. After some fruitless efforts, therefore, it ceased to try in that way, seemed unquiet, as though it were searching for some means, and at last it made use of the foot of the leg which was left, or it so bent the mutilated limb that it succeeded in wiping it against the side of its body. So much was Pflüger impressed by this wonderful adaptation of means to an end in a headless animal, that he actually inferred that the spinal cord, like the brain, was possessed of sensorial functions" ("Physiology of Mind," p. 72). Pflüger compares the movements of a headless animal to those of a

But physiologists explain all this by reflex action. The brainless pigeon, the headless frog, have no consciousness, no pain: they are mere machines,—albeit they behave as described. Let us see what reflex action is. Reflex action is usually defined as vital nerve action independent of consciousness and will. It implies a centre—a brain or ganglion—and an incident and excident nerve. The incident nerve carries the physical impression to the centre; the excident carries it outward, and by exciting the contractility of the muscles, produces all the phenomena to which I have alluded.* Dr Marshall Hall was the first clearly to discriminate between cerebral and reflex actions. He connected the latter with the spinal cord, and maintained they were altogether independent of mind. That many actions are reflex there can be no doubt. The contraction and dilatation of the heart, the peristaltic motion of the bowels, the bellows-like movements of the lungs, are all reflex. They require no effort of our will—they are hardly felt by us; and even in a state of catalepsy they go on, though more feebly and faintly than usual. But the question remains—Can the phenomena described be accounted for by reflex action? I think they cannot. A vital law, like a physical, operates uniformly—

sleeping man. He tickled the nostril of a sleeping boy on the right side, and he rubbed the spot with his right hand; on the left side, he rubbed it with his left hand. He then held the right hand, and the sleeper was obliged to use the left hand to the right side.

* I explain these sets of nerves as they usually are explained by anatomists and physiologists, but if the theory I advocate is the true one, they are not properly called afferents and efferents, incidents and excidents, inasmuch as they are not carriers,—not carriers of sense influences at least,—but only lines of communication between the central brain and the extremities of the body, or more properly, parts of the one nervous sensitive system, reaching to the different organs of sense. I do not wish to say anything of the fact that the sensory and motor nerve fibres, immediately after leaving the spinal cord, unite and are no longer distinguishable.

otherwise it is no law. The same cause always produces the same effect. Under the same stimulus the lungs and the heart always operate in the same way. If the sensitive plant be touched a hundred times, a hundred times it will fold up its leaves in unvaryingly the same manner. But in the cases alluded to, there is no such uniformity of operation. Touch the pigeon's foot once, it will perhaps only rock its body a little; touch it again, and it will probably lift it and replace it; touch it a third time, and it will lift it and keep it up, or perhaps not lift it at all. Throw a brainless pigeon in the air and it will fly, though stupidly; throw a pigeon made unconscious by chloroform in the air, and it will come down like a clod. There will be the same physical stimulants in both cases, and therefore there should be the same action and results. How should it fly unless it dimly knows it is in the air? The withdrawal of the pressure, implied in standing, from its feet, will not make it flap its wings, if it feels it is supported otherwise. There must be consciousness, or there would be the unvarying, uniform action of pure automatism, —which there is not.

In all reflex action, we are told, there is an incident and an excident nerve. If so, is not the incident always a sensory, and the excident always a motor? and does not this imply that there is sensibility in the one, as there is motor power in the other? No anatomist has yet discovered a set of nerves special to reflex action and different from the well-known sensories. If it be the sensory nerve which carries in the impression, we may be certain it carries it as sensation.

But further, certain actions are always voluntary, and certain others automatic, depending upon reflex action. According to some physiologists, actions which are primarily voluntary may become secondarily automatic (a doubtful doctrine), but this only after much practice and training—never suddenly and at once. Now, moving the leg, pluming the

feathers, opening the eyes, shifting the position, flapping the wings, are all voluntary motions, and it is inconceivable that, by the removal of the cerebrum, they should become at once reflex and automatic.

The theory of reflex action has recently become so fashionable among physiologists, that there is some danger of all action being reduced to it. The brilliant performance of an accomplished pianist, who can talk while she plays, is declared to be due to reflex action. The precise military step of the soldier, who marches on according to rule without thinking of it, is traced to the same cause. Everything which is done without the mind being attentively bent on doing it is reflex. If it be so, we had better accept at once the old theory of Des Cartes that the lower animals (and the higher ones too, according to the modern doctrine) are but pieces of mechanism, without mind or feeling at all. When we whip our horse, it does not feel it, but there is a reflex action contracting its muscles, and leading it to quicken its speed. When we lash our hound, it is all unconscious of the whipcord, but there is an influence passing in and passing out which forces it to howl and look up pitifully and deprecatingly in our face. When we clap our hands, and the poor brainless pigeon wakens up and looks about alarmed, it has heard nothing, but the wave of air has hit its tympanum, and it assumes the look and attitude of alarm by a mechanical process; for now, though living, it is but a machine, as unconscious as the brass and steel of our watches. This is a hard doctrine of the physiologists. I cannot believe it. Having watched the pigeon and the frog, and seen them manifest all the usual symptoms of sensibility, I thoroughly believe they were sensible; and the evidence of facts is not to be set aside for an old and ragged hypothesis that consciousness resides only in the brain.

Thus the facts of physiology, rightly interpreted, lead irresistibly to the conclusion that sensation is not confined to the

brain, but is spread over the whole sensory system. Wherever there is a sensory nerve, there there may be a sensation.

Closely related to this subject is the interesting question discussed by Dean Mansel—one of the most vigorous thinkers of his day—as to whether sensation is an affection of mind or of matter or of both. A similar idea had already been mooted by Sir William Hamilton, the master whom he delights to follow, but previous to his time such a question had scarcely occurred to psychologists. Mansel, however, defines sensation to be the consciousness of certain affections of our body, as an animated organism, and argues that it is an affection not of mind alone, nor of matter alone, but of an animated organism, *i.e.*, of mind and matter united.*

Let us look first at the definition, and afterwards at the doctrine appended to it. In sensation, are we conscious merely of certain affections of our body? In vision, are we conscious not of light, but of the impression produced by light upon our nerves and brain? Does sensation, in fine, furnish us with no knowledge but of certain obscure changes which are continually taking place in our material organism? I have said that it is so with many of our internal sensations; is there in reality no difference between these and those which have specific organs and seem to point to the external world? This were a lamentable conclusion. If it be so, we do not really see the objects which encompass us on every side. We are surrounded by illusions; for though we fancy ourselves to see tables, chairs, mirrors, books, all we really see and are really conscious of are certain little paintings, of half an inch in diameter, on the retina of the eye. Are not the material ideas introduced by Des Cartes into the brain quite as much a true reflection of the material world as these images which flicker on the retina? Are not the vibratiuncles of Dr Hartley quite as respectable entities as the vibrations of

* See his "Metaphysics."

the modern philosophers? Are not the *imagines*, the *simulacra rerum*, which the Epicureans supposed to be incessantly flying like pellicles from material things, diffusing themselves everywhere in the air, and reaching the organs of sense, quite as good representatives of the outer world as bundles of luminous rays or undulations of the atmosphere? And is there not as great a difficulty in believing the new theory as the old? How are we to force ourselves into the faith that the chairs and tables and bookshelves, which we see around us and outside of us, are nothing but affections of our nerves —or more truly, are nothing but our nerves themselves, chair-and-table-wise affected? How are we to believe that when we fancy we see men and women moving in the street we see only a kind of phantasmagoria within our own brain— or rather, are conscious only of a certain play in the tissues of the sensorium?

It is undoubtedly true that the objects of sense must touch the organs of sense in order to sensation. But instead of stopping here, some speculators have made a foolish and vain attempt to trace the outside object beyond the organ to the brain, and even beyond the brain to its mental development. Dean Mansel's theory appears to proceed upon the assumption that the outside object affects the organism, and the organism affects the mind; but this is by no means a self-evident truth. The outside object may itself affect the mind through the agency of the organism; or the mind may be present in the organ, as I have already taught, and as we shall immediately find the Dean teaching in a still more emphatic form. But still further, it appears to be taken for granted in all these speculations, that the brain, where it touches the mind—that the physical state immediately preceding the mental one—is the object of consciousness. In other words, it is assumed that in all sensation the proximate cause is the true object. Is it necessarily so? When we seem to see colours, are we

really conscious of nothing but of the unknown change which takes place in our sensorium? Or, to put it otherwise, is the affection of our sensorium caused by the light passing through the lenses of our eye, painting itself on the retina, and stopped there, but no doubt influencing in some way the nerve behind leading to the brain—is this the object of visual consciousness? Is it not much more rational to believe that the mentalised eye sees the coloured light, as every sane person really believes that it does? Or, if we must connect the seeing mind with the brain, is it not better to overleap the intermediate nervous conditions, and let the mind look out at the outer world through the eye as a window? Volition affords an illustration of what I mean; and with this advantage, that with regard to it we must push our inquiries from within outwards, as in sensation we push them from without inwards. When I will to raise my arm, the true object of my volition is the raising of my arm; and it is raised accordingly. Yet it is certain that the will acts upon the arm only through the intervention of certain nerves proceeding from the brain and spine, and ending in the muscles of the arm. But because of this, would it be a true statement of what really happens if we said that in such a volition the action of these nerves, which, so to speak, are proximate to the will, was the true object of volition? Undoubtedly not; it is the arm we will to raise, and it is raised, and the intermediate agencies do not enter into the conscious volition at all. May we not conclude with equal reason, that when the light shines in at our eyes, it is the light of which we are conscious, and not merely some obscure nervous impression which it makes, we know not where or how? We shall adopt this conclusion with still less hesitation if we believe that the sentient mind is not confined to the brain; that it is diffused over the whole sensory nerves, and everywhere verges on the external world.

But in addition, and even in opposition, to the doctrine

involved in his definition, Dean Mansel maintains that sensation is not an affection of mind alone nor of matter alone, but of an animated organism, *i.e.*, of mind and matter united. Now this doctrine is evidently in the teeth of his definition; for how can the animated organism be at once the subject and the object of sensational consciousness? How can the organism resulting from the union of mind and matter be itself the conscious ego and also the non-ego of which it is conscious? It is true, as he remarks, that the bodily organism is the "debateable land" between self and non-self; that "it may be considered as belonging to the ego or conscious subject, which in its actual concrete existence is susceptible of consciousness only in and by its relation to a bodily organism, or as belonging to the non-ego or material object of consciousness, from which the mind, as an abstract immaterial being, is logically separable, though in actual consciousness the two are always united." But this explanation does not remove the difficulty or reconcile the contradiction. If we regard the bodily organism as a component part of the conscious ego, it cannot be its own object, and thus the definition is false; if we regard it as the non-ego, it cannot be the subject of consciousness; and thus the doctrine following the definition, but contrary to it, is false. It cannot be both the one and the other—the ego and the non-ego—the subject and the object—so as to give truth both to the definition and its contradictory doctrine, for this would be a contradiction in express terms.

But Dean Mansel may be inconsistent with himself and yet have laid hold of a great truth. Though his definition be false, the doctrine which he has attached to it may probably be true. The important question still remains untouched—Is sensation an affection of mind alone, or of the animated organism which consists of mind and matter united?* Now,

* Sir William Hamilton states his opinion thus:—"It may appear

on the very threshold of the investigation it must be allowed that sensation depends upon the senses, and that we could not have such a form of consciousness apart from our animated organism. Immaterial spirits cannot see sights or hear sounds or smell odours as we do, and that just because they have no eyes, ears, noses, no nervous system, and no brain. Their knowledge must be of a kind totally different from ours, inasmuch as all our knowledge is of the external world, and all received through the senses. It must further be granted that in all sensation the body must be affected as well as the mind. The light must touch the retina before we see it; the vibrating air must drum upon the tympanum and pass to the inner ear before we hear it. Let it further be granted that the mind is everywhere present throughout the sensory nervous system, making it sensitive, mentalising it, so to speak; and we have virtually accepted the doctrine of Hamilton and Mansel, that the compound organism is the ultimate seat of sensation. And this conclusion is in accordance with the universal convictions and language of mankind. It is the eye which sees—it is the ear which hears—it is the tongue which tastes; and the whole body is sensitive; but that, only because the eye, the ear, the tongue, the whole body are rendered sensitive by the mind which is in them.

When we have accepted this truth, we get rid of several great difficulties. For instance, we get rid of the inverted image on the retina, which has so sorely puzzled philosophers.

not a paradox merely, but a contradiction, to say that the organism is at once within and without the mind—is at once subjective and objective—is at once ego and non-ego. But so it is, and so we must admit it to be, unless, on the one hand, as materialists, we identify mind and matter; or, on the other hand, as idealists, identify matter with mind. The organism as animated is sentient, is necessarily ours, and its affections are only felt as affections of the individual ego. In this respect and to this extent our organs are not external to ourselves" (Dissertations, Note D).

The usual idea seems to be that the mind sits snug somewhere behind the retina, not venturing out of its shell; and having the world painted upside down on the little screen before it, ought to see it so; but it does not see it so, and there is the puzzle. Let us get rid of this nonsense—this internal mental eye surveying the external physical eye; let us believe that the mentalised eye is the mind seeing, as the mentalised ear is the mind hearing; and this being understood, the eye does not see the inverted image, but the rays which form it, and which come all right from the outside object, though inverted in passing through the lenses in front of the retina.

I thus contend for the veracity of the universal conviction that sentiency is diffused over the whole body,—special forms of it being localised in special organs; but I also contend that with this diffusion there is a centralisation of consciousness—sentient and non-sentient—in the brain. The nervous organisation indicates this. Every sensory nerve goes to the brain, or its continuation, the spinal cord; every motor nerve comes from the same source; and they are often twins, working beautifully together, and keeping up the connection between the metropolis of thought and the outermost extremities of the body. I also contend for the perfect unity of mind. When one member suffers, all suffer with it. Mind manifests itself variously in seeing, hearing, smelling, feeling,—but it is the same mind. The mind is like the life: both permeate the whole living sentient frame, but neither can be divided,—each is one. I also contend that that which sees, hears, feels, is the mind, but the mind *plus* the body—the mind present in the eye giving it vision, in the whole sensory system giving it sentiency, and by its presence everywhere binding the whole into one. This is the true ego—one, yet manifold—mental, yet linked closely to the material, and conditioned by it.

## CHAPTER VIII.

### *SUBSTANCE AND QUALITY.*

We turn now from the knower to the known. It will be divined, from what I have said in regard to the true object of the sentient mind, that I do not recognise the venerable distinction of qualities into primary and secondary. That distinction is as old as the days of Democritus, yet no two philosophers agree as to what qualities are primary and what secondary, or as to the ground upon which the distinction rests. Des Cartes thinks that our knowledge of the primary is much more clear than of the secondary; but it seems to me that every sense gives us equally clear knowledge of its object—as clear a knowledge as is conceivable, though it were presumptuous to say as clear a knowledge as is possible. Locke says that the primary qualities are inseparable from body in what state soever it be; that divide a grain of wheat as we may, it still has solidity, extension, figure, and mobility: whereas the secondary qualities are nothing in the bodies themselves but certain powers to produce sensations in or by means of their primary qualities, as is the case with colours, sounds, and tastes. He further affirms that the ideas of the primary qualities of bodies are exact resemblances of them, whereas the ideas of secondary qualities are not; that the ideas we have of extension, solidity, shape, &c., are faithful copies of these material properties, but that the sensations we have of colour, heat, sound, taste, have not the most remote likeness to the properties in bodies which excite these ideas in

the mind.* Now it might be disputed whether colour, and even sound and taste—though they are to be found in every degree—are not as inseparable from body as solidity and shape. But apart from this, who will now say that our sensations of extension, solidity, and shape are exact patterns of these qualities as they exist in outside objects, any more than our sensations of sound can be like the vibrating body which causes it? How can the material thing known be in any case like the mental knower? But, at the same time, is it not certain, from what has already been said, that we, through our senses, know colours, sounds, tastes, and smells, as directly and as truly as shape, size, solidity, and extension? It is preposterous to maintain that the knowledge is true in the one case and deceptive in the other.

Dr Reid believes in the reality of the distinction which I have been questioning, and maintains that our "senses give us a direct and distinct knowledge of the primary qualities, and inform us what they are in themselves; but of the secondary qualities, our senses give us only a relative and obscure notion. They inform us only that they are qualities that affect us in a certain manner, that is, produce in us a certain sensation; but as to what they are in themselves, our senses leave us in the dark." † Now, in a passage from his "Inquiry," which I have already quoted, Reid argues vehemently that our sensations of extension, hardness, &c., can no more be like these qualities in matter than they can be like courage or justice. If this be so, the philosopher contradicts and refutes himself, and we can no more have immediate knowledge of the primary than of the secondary qualities of objects. In truth, so long as the ideal philosophy —in any of its modifications—is held, it is impossible for us to have an immediate knowledge of anything. If we are

* Essay b. iv. c. iii.

† On the Intellectual Powers, Essay ii. c. xviii.

conscious of our sensations, and know outward things only through our sensations, it is easy to see that our knowledge must be relative, and easy to prove that our sensations can have no possible similarity either to the primary or the secondary qualities of matter.

But Dr Reid points out that the sense of hearing does not inform us that sound is caused by vibrating bodies, or smell by an effluvium emitted by odorous bodies. It is quite true. The ear hears the sound, or, if you will, hears the body vibrating, but further than that it does not go. Hearing, and not seeing, is its function ; but vibrations being motions, may become the objects of sight or touch as well as of hearing, and indeed be made the subject of scientific research. But the hearing ear at once hears the horn, the bell, the flute, and in simply hearing the sonorous properties of these instruments, its function is discharged and its powers exhausted. And so it is with the primary qualities too, though our philosopher does not perceive it. We touch a solid body, and touching it, know it to be solid ; but what physical texture of parts constitutes solidity, the uninitiated touch cannot tell. Nature has given it certain work to do, and it does it well, and no other.

"The line which I would draw," says Dugald Stewart, "between primary and secondary qualities is this: that the former necessarily involves the notion of *extension*, and consequently of externality or outness; whereas the latter are only concerned as the unknown causes of known sensations; and when first apprehended by the mind, do not imply the existence of anything locally distinct from the subjects of its own consciousness." * This distinction rests upon the idealism with which all our psychologists have been infected; and if that idealism be unfounded, as I hope I have shown it to be, the distinction vanishes.

* Phil. Essays, Works, vol. v. pp. 116, 117.

Sir William Hamilton connects the distinction between primary and secondary qualities with the distinction which he, following in the track of Reid, makes between sensation and perception. All our knowledge of matter, he declares, is relative—thus giving up the immediate knowledge which he elsewhere so earnestly contends for. "Where the objective element predominates,—where matter is known as principal in its relation to mind, and mind only known as subordinate in its correlation to matter,— we have perception proper rising superior to sensation; this is seen in the primary qualities. Where, on the contrary, the subjective element predominates,—where mind is known as principal in its relation to matter, and matter is only known as subordinate in its relation to mind,—we have sensation proper rising superior to perception; this is seen in the secondary qualities." * I have already shown, as I hope, that the distinction between sensation and perception is altogether foundationless, and this new distinction between primary and secondary qualities is therefore equally so. All sensation involves perception: the consciousness through the senses of any outward quality is the knowing it, and the only possible way of knowing it. Moreover, each sense gives equally accurate knowledge of its own objects; and there is no such thing as the subjective element predominating in one sensation and the objective in another; no such thing as mind recognised by the senses as the principal object of a sensation and matter in subordination to it; or matter as the principal object and mind as subordinate. In all cases mind knows, matter is known. All the qualities of matter are different, but all are real. Sonorousness is different from hardness, and odoriferousness from shape, but each of these is as much an actual quality of matter as the others, and is immediately known by its own sense. It may, however, be conceded that the objects of

* Lectures on Metaphysics, Lecture xxiv.

touch and sight, the palpable and the visible, force upon us more powerfully than the objects of the other senses the idea of outness. And there seems to be something in the idea of Locke that the secondary qualities rise out of the primary,—that they are forces dependent upon solidity and extension. But whatever may be the conclusions of physical science respecting them,* what are called the secondary qualities have their special senses as well as the primary, and by these senses alone can they be known. The sense of smell is *toto cœlo* distinct from that of touch, and a secondary sensation has never yet been reduced into a primary. In fact, no sense or sensation has ever yet been reduced to another.

The school of Berkeley and Hume do not recognise the distinction. According to them, we have absolutely no knowledge of any qualities of matter, either primary or secondary: we are conscious only of sensations, and sensations can have no counterparts in the material world. I hope I have shown it is possible to get rid of the distinction without the annihilation of the universe.

But what of substance? It is a hoary-headed doctrine that underlying all qualities there is a something which we call substance; and that substance and quality can be separated from one another, in thought, at least, if not in reality. This old belief still subsists in our modern philosophies. Locke recognises substances as being distinct from their qualities, but he acknowledges that we are entirely in the dark as to what they are. "Qualities," says Reid, "must have a subject. We give the names of matter, material, substance, and body to the subject of sensible qualities; and it may be asked what this matter is? . . . As to the nature of this something: I am afraid we can give little account of it but that it has

* Mr Spencer has some very ingenious speculations upon the distinction of the primary and secondary qualities; but I cannot admit all his conclusions, though there is indubitable truth in some of them.

the qualities which our senses discover. But how do we know that they are qualities, and cannot exist without a subject? I confess I cannot explain how we know that they cannot exist without a subject, any more than I can explain how we know that they exist." * "The word *substance*," says Sir William Hamilton, "may be employed in two, but two kindred meanings. It may be used either to denote that which exists absolutely and of itself; in this sense it may be viewed as derived from *subsistendo*, and as meaning *ens per se subsistens;* or it may be viewed as the basis of attributes, in which sense it may be regarded as derived from *substando*, and as meaning *id quod substat accidentibus*, like the Greek ὑποστασις, ὑποκείμενον. In either case it will, however, signify the same thing viewed in a different aspect. In the former meaning, it is considered in contrast to and independent of its attributes; in the latter, as conjoined with these, and as affording them the condition of existence. . . . Substance is thus a term for the substratum we are obliged to think to all that we variously denominate a mode, a state, a quality, an attitude, a property, an accident, a phenomenon, an appearance, &c." †

The idealists have laid hold of this distinction between substance and quality, and used it as one of the strongest props of their idealism. We know only qualities, they say, and these only as sensations: of substances we know nothing, and indeed can form no conception. There is, therefore, no reason for believing that substances exist. The German idealists express the same thing when they say—We know only phenomena and not noumena. "What we term the properties of an object," says Mr J. S. Mill, "are the powers it exerts of producing sensations in our consciousness." He takes an orange to illustrate his meaning. It is yellow, it is soft, it is

* Intellectual Powers, Essay ii. c. 19.

† Lecture viii.

sweet, it is globular—that is, it excites in us the sensations corresponding to these words, and this is all we know of it or can know. "When thus analysed," he argues, "it is affirmed that all the attributes which we ascribe to objects consist in their having the power of exciting one or another variety of sensations in our minds; that to us the properties of an object have this and no other meaning; that an object is to us nothing else than that which affects our senses in a certain manner; and that we are incapable of attaching to the word "object" any other meaning." *

Here we see the whole universe vanishing before our eyes like smoke. Material objects are utterly unknown to consciousness; their qualities are only certain supposed powers by which different sensations are excited in us; and it is of the sensations alone we have any knowledge.

It is plain that if matter and its qualities be separated, they must both perish. Is it not possible to preserve them by keeping them together? Can they be separated? Was a substance ever known or heard of without a quality—that is, a substance existing, and yet existing in no mode or way? Never. Was a quality ever known or heard of without a substance—that is, a quality which was yet a quality of nothing? Never. Since they cannot be separated in reality, can they be separated in thought? Can we conceive a substance existing without any quality—with no size, figure, colour—existing, and yet existing in no way, no time, no place? I confess I cannot. Can we conceive a quality which is yet no quality,—a thing which, from its very definition, qualifies something else, — existing without anything to qualify; of whiteness without anything white, of hardness without anything hard. I confess I cannot. Try it as I may, I am baffled.

But I may be told that though substances and qualities

* Examination of Sir William Hamilton's Philosophy, pp. 7, 8.

never have been found actually existing separate, that yet metaphysicians have separated them in thought, and that the existence of the two words, "substance" and "quality" is the best proof of this. There they are, discriminated in language from ancient times. I may even be told that there must be some real difference between them,—that no man would call a quality a substance, or a substance a quality. In regard to the two words, I refuse to be led astray by them. There are no such arrant impostors as words. In regard to the statement that no man would call a quality a substance or a substance a quality, I have only to say that as I cannot even form a conception of a quality apart from a substance, or of a substance apart from a quality, I am necessarily compelled to think of them as one.

I believe in substance—matter—the world (call it what you please); and I farther believe that substance is the immediate and only object of my knowledge. But then this substance or matter may exist in endless modes or ways. It may be of any size, shape, colour, odour; and so far as my senses reach, I may know it in any or all of these modes. But it is *it*—(the substance, not its qualities)—I know; *it* in some particular mode or modes. Those manifold modes in which matter may exist are what is called its qualities. Are they, then, something different from the substance? They are not. They are merely the substance in its different conditions. We cannot, therefore, know qualities without also knowing substances. When we see a round, soft, yellow body (say Mr Mill's famous orange which demolishes the world), we see it in those conditions which we call rotundity, softness, yellowness, but we see *it*, for properties are only modes of substance and nothing in themselves. A mode of matter is, more correctly speaking, matter in a certain mode. What we therefore perceive, in all cases, is not the mode, or quality, or attribute, or property, but the matter itself in the mode or

condition indicated by these words.* What is true of matter is equally true of mind. A mental mode is simply the mind in a particular mode; and therefore to say that we are conscious of a mental mode is to say that we are conscious of the mind in the mode indicated.

I may be asked to account for the origin of the words "quality" and "substance,"—words which go back to the very beginning of philosophical language. I can only say they are the creatures of definitions, and of definitions which are false. There are no such things in the universe as substance and quality in the philosophical meaning of the words. There is no such thing as an unseen, intangible substratum underlying sensible qualities; and no wonder, therefore, that philosophers have groped after it in vain. There are no such things as qualities inhering in a hidden subject; and no wonder, therefore, philosophers should be puzzled how to deal with these creations of their own after they have improperly brought them into the world. There is only matter, but matter in endless modes, and we may know it in any of those modes which come within the range of our senses. But in every case it is the matter itself which we know. Thus looked at from the material as well as from the mental view-point, the idealistic system, when closely scrutinised, is found to be false and hollow. It is the diseased growth of old definitions and traditions—venerable, but rotten.

The simple and almost self-evident truth which I have here explained puts to silence the great controversy regarding the relativity of human knowledge. That controversy is, in fact, identical with that which regards the nature of perception. It is the same thing looked at from a different point of view.

* I have frequently throughout this book spoken of us as knowing the qualities or properties of bodies—employing the popular phrase; but the phrase must be interpreted according to what is here said.

Most metaphysicians in this country agree that our knowledge is relative. In this matter Sir William Hamilton and Mr Mill are at one. But the high-flying Germans aim at absolute knowledge, and both Fichte and Hegel think they have found it.

I have already said that knowledge is a relation. There are always the two factors,—the knower and the thing known,—and knowledge is the relation between them. Without these two factors knowledge is impossible; and when there are two factors, relationship emerges. Looked at in this way, then, knowledge is relative.

Sir William Hamilton laid the first foundations of his future fame by his article on Cousin's philosophy in the *Edinburgh Review* (1829), in which he strenuously asserted that all our knowledge is relative; and he has reasserted the same opinion in his Discussions and Lectures. Mr Mill, as I have said, believes in the relativity of human knowledge too; but then he maintains that Hamilton's doctrine of the relativity of knowledge is flatly contradictory of his other doctrine, that the primary qualities of matter are known in themselves and immediately, and therefore that either the one or the other must be abandoned. These two doctrines—the immediate intuition of the external world, and the relativity of all knowledge—were those upon which the celebrated Professor put forth his greatest strength, and it is difficult to say with which his reputation is most intimately connected. Is it possible he exhausted his life in proving contradictories? Must his disciples now surrender the one thesis to save the other—its alleged antithesis? It were strange if it were so, and yet stranger things than this have happened in the perplexed history of mental philosophy. It may turn out that Mr Mill himself is specially chargeable with this inconsistency, and that his doctrine of idealism cannot be reconciled with his doctrine of relativity.

The phrase, "the relativity of human knowledge," may bear several different meanings; and Mr Mill has done good service to philosophy by very carefully discrimating and defining the chief of these. By most philosophers, he tells us, the phrase is used to indicate that we know, and can know, nothing of matter beyond the sensations which it excites in us, and that, as we have no reason to believe that there is any resemblance between material properties and mental affections, matter is to us necessarily and altogether unknowable. In this sense, it will appear to most people, the doctrine reduces all our knowledge not to a relation, but to zero. Yet, this is the doctrine which he lays at the door of Sir William Hamilton, and which he glories in holding himself.

"Our whole knowledge of mind and matter," says Sir William Hamilton, "is relative, conditioned — relatively conditioned. Of things absolutely and in themselves, be they external, be they internal, we know nothing, or know them only as incognisable; and become aware of their incomprehensible existence only as this is indirectly and accidentally revealed to us through certain qualities related to our faculties of knowledge, and which qualities again we cannot think as unconditioned, irrelative, existent in and of themselves. All that we know is therefore phenomenal—phenomenal of the unknown." Again, speaking of the qualities of matter, he says, "As these phenomena appear only in conjunction, we are compelled by the constitution of our nature to think them conjoined in and by something; and as they are phenomena, we cannot think them the phenomena of nothing, but must regard them as the properties or qualities of something that is extended, solid, figured, &c. But this something, absolutely and in itself, *i.e.*, considered apart from its phenomena—is to us as zero. It is only in its qualities, only in its effects, in its relative or phenomenal existence, that it is cognisable or conceivable; and it is only by a law of thought

which compels us to think something absolute and unknown as the basis or condition of the relative and unknown, that this something obtains a kind of incomprehensible reality to us." *

It must be acknowledged that Sir William Hamilton here teaches a very dubious doctrine, and no wonder Mr Mill joyfully accepts of it as the true doctrine of the relativity of knowledge. If what is here said be true, knowledge is reduced, not to a relation, but to utter nothingness. We know nothing of substance—it is incognisable, and even incomprehensible. We know nothing of the secondary qualities but as sensations. We know nothing of the primary qualities, as existing in themselves, but only as inhering in a substance which is declared to be unknowable and inconceivable; and of the existence of which we can have no evidence, as we can have no idea. Thus all substances and all secondary qualities are sent into outer darkness. And primary qualities must follow them; for being in themselves unknown, they cannot be known as inhering in that which is also unknown. Two incognisables cannot make a cognisable, though we may know the incognisable relatively through the cognisable. The doctrine of Hamilton, therefore, leads inevitably to nihilism. The plain fact is, we know neither qualities nor substances in their scholastic sense, for in their scholastic sense neither the one nor the other exists. We know matter, we know things in all their endless modes; but beyond this we know nothing, for there is nothing else to know. We cannot know hardness, for instance, just because hardness does not exist. But we may know a thousand things which are hard. It is the things we know—the things in a hard state: these are the only existences and the only possible objects of knowledge. Qualities are nothing different from matter; they are merely the matter in its different states; and therefore, when we know material qualities we know matter. When we see a variously-coloured square-shaped object—say a book—we see it in the condition so

* Lecture viii.

indicated, but we see *it;* for properties, qualities, attributes are only modes of matter; or rather, are only matter in certain modes. Nor will it perplex me if you say that I am cognisant only of its qualities, its colour, its solidity, its shape, its size; for I never saw colour, solidity, shape, or size, though I have often seen *things* coloured, solid, and of some particular shape and size. I never saw *nothing*, but I can see *anything* in any state within the field of my vision.

German metaphysicians express themselves somewhat differently when teaching the relativity of all knowledge. "We do not," they say, "know things in themselves." Of course we do not, for there are no such things to know. Things in themselves are things out of relation to all other things; things in no particular state or mode; things with no qualities,—of no size, solidity, figure, colour; existing, but existing in no time or place or way. We do not know such things, for the sufficient reason that there are no such things. Things, to exist, must exist in some way, for to say that they exist in no way is to say that they do not exist at all. When it is so, we can know things only as they are, and as they only can be; and so all our knowledge is of matter in its manifold and necessary conditions of being. But in so knowing it, we know it as it is.

Mr Mill, skilfully choosing his own battlefield, says we know things only so far as they affect us: the different impressions made upon our senses by the different qualities of the orange is all we know or can know of it; beyond these impressions everything else is to us necessarily zero. In a sense this is true. But what is meant by an object affecting us? So far as I can see, an object affects us—mentally or consciously affects us—only so far as we know it. For it to affect us is for us to know it; and to say that we know it only so far as it affects us, is simply to say that we know it only so far as we know it—about which we must all be agreed.

Again, what is meant by a mental impression made by an outside object? By a mental impression, as I have abundantly shown, is only meant the mind impressed; and for the mind to be impressed by an object of sense is simply to be conscious of that object. The different impressions made upon us by the orange is, therefore, our varied consciousness of the orange,—nothing more, nothing less. We know the orange as it is, and we know it immediately, but we know it only so far as it is knowable to us.

Mr Bain states the same doctrine more mildly, thus:—"There is no possible knowledge of the world except in reference to our own minds. Knowledge means a state of mind; the notion of material things is a mental thing. We are incapable of discussing the existence of an independent material world; the very act is a contradiction. We can speak only of a world presented to our own minds." * By this Mr Bain means that we can know the world only as it appears to us in a sensational form. The material becomes mental before it can be cognised; and thus it is only through the one we can cognise the other. The answer to this is, that we do not cognise the mental, but the mind cognises the material directly and at once. "Knowledge means a state of mind," but that amounts only to this: the mind knows. "The notion of a material thing is a mental thing," but that can only mean that it is the mind which is conscious of matter—about which we should all be at one.

There is another sense sometimes assigned to the relativity of knowledge. "We only know anything by knowing it as distinguished from something else," says Mr Mill; "all consciousness is of difference: two objects are the smallest number required to consciousness; a thing is only seen to be what it is by contrast with what it is not." † And again,

* Senses and Intellect, pp. 370, 371.

† Examination, p. 6.

when speaking of Hamilton's argument in regard to the Absolute and Unconditioned, he says in regard to this belief, with a kind of triumphant shout, "Here we have at length something which the mind can rest on as a fundamental truth. It is one of the profound psychological observations which the world owes to Hobbes; it is fully recognised both by M. Cousin and Sir William Hamilton, and it has more recently been admirably illustrated and applied by Mr Bain and Mr Herbert Spencer. That to know a thing is to distinguish it from other things is, as I formerly remarked, one of the truths which the very ambiguous phrase, 'the relativity of human knowledge,' has sometimes been employed to denote." * Notwithstanding the roll of illustrious names here given, I am unable to believe that knowledge is relative in such a sense. If a mind had never had any consciousness but one unvarying state, it would yet have that one. If we never had any sensation of colour but of greenness, we would have a knowledge of greenness, though not a knowledge of it as contradistinguished from other colours. Every state of consciousness is complete in itself, and involves its own quantum of knowledge. The contrast created by a new state of consciousness may define the first, and call our attention to it, but it does not form it. Suppose a mollusc capable of only one sensation—born with it, dying with it—had it not that sensation? Suppose the violent sensation of burning to be the first and last sensation an infant had, was that sensation to it as zero?—if so, it was not a sensation. Permanency does not destroy sensations, it only makes them a part of our permanent self-consciousness. Moreover, if we can be conscious only through contrast, all consciousness is impossible, for we must be conscious of objects separately before we can know them in contrast. Knowledge, then, is not relative in this sense.

* Examination, pp. 61, 62.

The doctrine that all knowledge involves a dualism—a mind knowing and matter known—involves, as I have already said, the doctrine that all knowledge is and must be relative. Knowledge is a relation, the relation of the knower and the known. The knowing ego is distinct from the known non-ego, and knowledge is the relation in which they stand to one another. Where there are two factors, absolute knowledge is impossible. We know only as we know, and only as far as we know. Our knowledge is limited by the limits of our mind, and conditioned by it too. But such a relative knowledge as this is very different from that taught by Mr Mill, as he very fully confesses. He indeed declares, somewhat contemptuously, that the relativity of knowledge thus understood is a trivial and insignificant truism. And perhaps it is ; for there is no man in his senses but would confess that we know things just as we know them, and only so far as we know them.

But let us now see if Mr Mill can consistently hold the relativity of all knowledge. He abolishes the dualism of knower and known. He identifies the object of sensation with the sensation. The sensation alone remains in every act of knowledge. Thus, instead of duality, there is unity—perfect unity ; and where there is perfect unity it is difficult to understand how there can be relativity. One of the terms is wanting to constitute the relation. If we know only our own sensations, we do not know the external world at all, and hence we have absolute ignorance rather than relative knowledge. If the subject and object of knowledge be identified, then we have not relative but absolute knowledge—the only absolute knowledge that is possible—absolute knowledge of nothing. And this is in truth Mr Mill's teaching. According to him, knowledge is a conscious state of mind, and nothing more. There is no external world to be known, and no mind to know it. There is only the conscious state—a

state without being a state of anything, conscious without being conscious of anything. Besides this, there is nothing in the universe: it is the universe, the absolute, the all in one.

Thus, whatever we may think as to whether Hamilton's doctrine of perception can or cannot be reconciled with the relativity of knowledge, it is certain that Mill's doctrine of idealism cannot. Idealism necessarily leads to absolutism: when the knower and the known, the subject and the object, are identified, there must be absolutism. Fichte and Hegel clearly saw this, and boldly advanced toward it. But this absolute knowledge is identical with absolute ignorance. Instead of soaring so high and falling so low, it seems better to me to rest contented with the humble, but perhaps unphilosophical truism, that we know what we know, how we know, and so far as we know.

Such is the venerable rubbish which must be cleared away, such the idols which must be thrown down from their high places, before the fane of philosophy can be purified and made fit for its new furniture and its new divinity. Every one of these old saws about substances and qualities is like a nail fastened in a sure place, driven to the very head, rusted with years, and hard to extract; and yet extracted it must be before the old tabernacle it keeps together will tumble down.

# CHAPTER IX.

## *MEMORY.*

THE theory of mind-conscious-of-matter has been shown to be in accordance with all the facts of sensation. It has stood this primary test. But there is another, and, it may be thought, a severer test to which it must now be subjected. What of memory? it may be asked. The objects of sense, it may be argued, are always present to the senses, and therefore may be present to the mind; but the objects of memory are always absent, perhaps do not, when remembered, exist at all; and how then can the mind be said to be conscious of that which is not present to it, and is probably altogether non-existent? Were not this to be conscious of a non-entity, or, in other words, of nothing? and has it not been maintained that to be conscious of nothing is to be unconscious?

But furthermore, and turning from the blank to the pictured side of the shield, what of all those trains of thought which are ever passing through the mind as we sit and brood upon the past? We are surely conscious of them, and if so, we are conscious of the mind's own moods; and thus the theory of mind-never-conscious-of-mind is abandoned. This illusory difficulty so disconcerted Sir William Hamilton, that, in treating of memory, he is an idealist of the purest type. He surrenders, apparently without a pang, his theory of immediate knowledge, and argues with more than usual dogmatism that in memory our whole knowledge is representative. In remembering, he maintains, we are conscious only of a present state of mind—representative of a past state

—accompanied with a belief in the former existence of that state: and he treats his usual idol, Dr Reid, with the contempt with which a savage sometimes treats his god, for having ventured to think the contrary.

As memory, like sense, is an original faculty, with nothing in the universe resembling it, it cannot be logically defined. We may, however, explain what we mean by it. Referring to the faculty, we should say it is the power of recalling the things we have seen or otherwise experienced in the past. Referring to the mental state, we should say it is the consciousness of such past experiences. Sir William Hamilton resolves the faculty into the two simpler ones—the power of retention and the power of reproduction. I hesitate to adopt this distinction, because there is no evidence that past experiences are retained in the mind when they are out of the consciousness, and therefore no proof that there is a power of retention apart from the power of reproduction. Reproduction, as we shall afterwards see, depends upon the laws of association, by which the objects of sensation and reminiscence, being linked together, recall one another to consciousness.

Let us now see the analysis of the state of mind involved in memory given us by Hamilton. "Every act," says he, "and consequently every act of knowledge, exists only as it now exists; and as it exists only in the *now*, it can be cognisant only of a now-existent object. Memory is an act, an act of knowledge; it can therefore be cognisant only of a now-existent object. But the object known in memory is *ex hypothesi* past; consequently we are reduced to the dilemma, either of refusing a past object to be known in memory at all, or of admitting it to be only mediately known in and through a present object. That the latter alternative is the true one, it will require a very few explanatory words to convince you. What are the contents of an act of memory? An act of memory is merely a present state of mind, which

we are conscious of, not as absolute, but as relative to and representing another state of mind, and accompanied with the belief that the state of mind, as now represented, has actually been. . . . All that is immediately known in the act of memory is the present mental modification, that is, the representation and concomitant belief. . . . So far, therefore, is memory from being an immediate knowledge of the past, that it is at best only a mediate knowledge of the past; while in philosophical propriety, it is not a knowledge of the past at all, but a knowledge of the present and a belief of the past." *

I cannot accept this analysis as a true one. It is not an analysis but a false argument built up on a false foundation. I dispute the thesis which Sir William Hamilton has made his corner-stone, even though he seems to regard it as an axiom. "Every act exists only as it now exists; and as it exists only in the now, it can be cognisant only of a now-existent object. Memory is an act, an act of knowledge, it can therefore be cognisant only of a now-existent object." I deny that what exists now can be cognisant only of what exists now; for if I admitted this, I would give up memory, the very peculiarity of which is, that in remembering now we remember the past: the act is now; the thing remembered is a thing which is not now, but which has been. It may be argued that it is a contradiction in terms to say that the mind can have an immediate knowledge or consciousness of a thing which is not. But there is in reality no contradiction in the matter at all. It must be kept in mind that the consciousness of which we are speaking is memorial consciousness—the consciousness implied in remembering; and the whole fact is expressed in the very simple, and by no means self-contradictory formula—We now consciously remember that which has been. Sir William Hamilton has been misled by that

* Lecture xii.

idealism which clings to him like the old man of the sea, so that he cannot shake it off: he thinks the present act must be the object of the present consciousness; in other words, that in remembering we are simply conscious of our present state of consciousness—a lame and impotent conclusion.

"An act of memory," says Sir William, "is merely a present state of the mind of which we are conscious. . . . All that is immediately known is the present mental modification." After all that has been said, does any one believe it possible for the mind to know its own moods? Am I simply conscious of myself when I remember? Is it needful to repeat that, since a mental modification is just the mind modified, it is absurd to speak of the mind modified being conscious of the mind modified, or of a mental modification being aware of itself? It will not do to say there is an *act* conscious of a *state;* for, according to the teaching of every psychologist, the two are identical. Nor will it do to say that there is simply a present conscious state, for we cannot be conscious without being conscious of something; and the question is, Of what are we conscious? Is it the mental modification or the thing remembered? When an appeal is made to consciousness on this subject, the answer is decisive. In every act of memory we are distinctly conscious of the thing remembered; we are never conscious of the mind itself. To say that I recollect anything, is to say that I am memorially conscious of it, for memory involves consciousness; just as to say that I see anything, is to say that I am visually conscious of it. In the one case, the object is present to the memory; in the other, it is present to the sight; in both it is present to the consciousness; for there can be no memory, no sight, without consciousness.

But we have not yet exhausted what Sir William Hamilton calls "the contents of an act of memory." "An act of memory," says he, "is merely a present state of mind, which

we are conscious of, not as absolute, but as relative to, and representative of, another state of mind." Now, if it be difficult to conceive how we can be conscious of a state of mind at all, it is infinitely more so to understand how we can be conscious of a state of mind as not absolute, but relative and representative. What is meant by a state of mind which is not absolute, a state of mind which is relative? It will probably be said that by "relative" is merely meant that it is representative of another state; and that by being conscious of it, as such, is merely meant that it is accompanied, as Sir William says it is, "by a belief that the state of mind, as now represented, has actually been." Now, first, it seems somewhat absurd to speak of one state of mind as being representative of another and previous state; for by this must be meant that it is a kind of pictured likeness of it; and it is difficult to think of one mood of mind being a portrait of another; and, secondly, it must be thought, and that truly, that there is something false and deceptive in the second state, for it is said to be attended by a belief that what is now only represented once actually was. A kind of mimic show, in fact, goes on within the theatre of our consciousness, and we know it is a mimic show, but we are certain, so to speak, that it is founded upon fact, and that what is there represented once actually happened in the past world!

But whence comes this pictured representation of the past? What is the source, what is the cause of it? for everything must have a cause. It is a mental representation of past realities. But how can that which is past, perhaps perished, mirror itself in the present mind? for *ex hypothesi*, in the mind it is somehow, albeit by representative images. Thus the difficulty, so far as it is a difficulty, conjured up by Hamilton, recoils upon himself. But furthermore, how can that which is mental be representative of that which is material? Mental moods existing now cannot surely be faithful copies of horses

and cows, of ships and tempests, which existed a year ago. All philosophers have demonstrated a hundred times over, that mental ideas can have no possible likeness to outside-world realities. Present memories must, therefore, be poor pictures of past facts.

"In philosophical propriety," says Sir William, "memory is not a knowledge of the past at all, but a knowledge of the present and a belief of the past." If this be the case, then I venture to say memory is no longer memory. It is impossible, without a terrible abuse of words, to speak of memory as a knowledge of the present; its essential characteristic, as contradistinguished from sensation, is, that it is a knowledge of the past. But this reminiscent knowledge of the present, we are told, is accompanied by a belief of the past. We know the thing as present, we believe it to be past. The belief belies the knowledge. But it may be pleaded, the knowledge and the belief are not thus contradictory; the doctrine amounts only to this—we have a present state of mind, and we believe it represents a past state of mind. How this belief? How this present state representing a past state? If we can believe (albeit it is an act in "the now") the past, may we not as well remember the past? But further, if a present state represents a past state, does it not so far recall it? and inasmuch as a state of mind is just the mind in a certain state, have we not here just the simple truth, that in memory the present mind recalls the past? How simple the God-given faculty! how clumsy the contrivances of man's device which have been substituted for it!

It is certain Sir William Hamilton's doctrine involves a double consciousness; and the difficulty of dealing with this double consciousness has led to all his confusion and contradictoriness. "We are conscious of a present state of mind" (forgetful that the "we" and the present state of mind are identical), and this present state of mind has for its

object another state of mind which is past; that is, we do not immediately remember anything, but we are conscious of a state of mind which, so to speak, is a remembering one. It is not the "we" that remembers, but the "we" is conscious of a state of mind which remembers; for by "representing" and "containing" can only be meant recalling or remembering. Or if by "representing" is not meant remembering, then in remembering there is no remembering, as we are told the "we" does not and cannot remember the past, but is simply conscious of the present. To look at the matter in another light. According to this doctrine, there are three factors in every act of memory—the I which is conscious; the present state of mind of which it is conscious; and the other and previous state of mind which constitutes and gives its contents to the first state, and which, though not known, is yet believed in. Now, since Hamilton and almost every other modern philosopher has demonstrated again and again that the conscious ego is not different from the mind of which it is said to be conscious, how much better it would be if he would really identify the first two factors, and say simply that the conscious ego consciously remembers the past!

His own teaching in regard to consciousness ought to drive him to this. He argues with great vigour that we cannot possibly be conscious of an act of perception without being at the same time conscious of the object of that perception; and that thus we are immediately conscious of the outer world. He extends, indeed, this fundamental principle to every mental act. "It is palpably impossible," he says, "that we can be conscious of an act without being conscious of the object to which that act is relative." * Well, if it be so, we cannot be conscious of an act of memory without being conscious of its object; and the object of memory surely is in the past; we cannot even be conscious of an act of belief

* Lecture xiii.

(and memory, by the doctrine we have been considering, is reduced to a belief in the past) without being conscious of its object, and thus we are immediately conscious of what has been seen and felt in the past.

Dr Maudsley remarks* that we cannot remember a pain, but only that we have experienced a pain. The observation goes deeper than anything which has been said by Hamilton, for it appears to proceed upon the supposition that we cannot remember a pain without being conscious of it, in other words, that memory must recall the pain, and thus that we would feel it over and over again. I cannot, however, agree with the remark; for we could not remember that we had experienced a pain unless we remembered something of the pain itself, otherwise how would we know it was not a pleasure? We certainly do remember pains, and even their minute characteristics, for every pain differs from every other. In regard to recalling the pain, we do so only memorially; in plain language, we only remember it. But even in a mere remembrance of pain there is generally some degree of pain; in a feeble way we resuscitate the old sensation; and thus we have our painful as well as our pleasant memories. The mind, however, sometimes fails in producing or reproducing what is intensely pleasurable or painful. Thus, in our dreams we fall over the precipice, but we never reach the jagged rocks a thousand feet below, for the imagination cannot come up to the terrific crash. Hence in all dreaming we uniformly stop short of the supreme pleasure or the supreme pain. Dr Maudsley's remark has, therefore, a dash of truth, but it certainly does not overturn the doctrine that in all remembering we recall the past immediately, and without the aid of any representative medium.

Reid, though often contradictory and confused upon other points, had a true insight in regard to this question.

* See his "Physiology and Pathology of the Human Mind."

"Suppose," says he, "that once, and only once, I smelled a tube-rose in a certain room, where it grew in a pot, and gave a very grateful perfume. Next day I relate what I saw and smelled. When I attend as carefully as I can to what passes in my mind in this case, it appears evident that the very thing I saw yesterday, and the fragrance I smelled, are now the immediate objects of my mind when I remember it. . . . Philosophers, indeed, tell me that the immediate object of my memory in this case is not the past sensation, but an idea of it, an image, phantasm, or species of the odour I smelled; that this idea now exists in my mind or in my sensorium; and the mind contemplating this present idea finds it a representation of what is past, and accordingly calls it memory. . . . Upon the strictest attention, memory appears to me to know things that are past, and not present ideas, for its object." *

In all this Dr Reid is undoubtedly right: his native sagacity led him to the truth, in spite of philosophic prejudices. The main thing to be kept in mind in considering this question is, that sensation and memory are essentially different. The one is a faculty of the present, the other of the past. In the former, the object must be existent and present to the senses; in the latter, the object must not be present, but past, and indeed may have ceased to exist. But how can the absent and non-existent be the mind's object unless by representative images? Those who put such a question forget what I have just said, that the very function of memory is to keep us acquainted with the past, as the function of sense is to make us acquainted with the present. It is indeed a marvellous power, but the power we nevertheless possess of recalling scenes and circumstances, foes and friends, whom perhaps we have not seen for half a lifetime. There they are, with their old familiar faces, quite visible to the far-

* Inquiry, Chap. ii. Sect. 3.

stretching eye of memory. Let us take an illustrative and testing instance. We see a church to-day, and remember it to-morrow. In this case, the church is as certainly the object of our memory to-day as it was of our sight yesterday; and memory is just the mind remembering. To say that we remember not the church, but a representative image of it, would be felt to be absurd. To say that in remembrance we are conscious of such a representative image of it, is to say precisely the same thing, though, from philosophic forms of speech, it does not sound so absurd; and the whole doctrine of representative memory is a shred of that dotard idealism which is still unfortunately the universal philosophy, but in which fortunately none but philosophers believe.

But what, it may be said, of all those trains of thought which are ever passing through the mind? In answer to this I am forced to say, though it may dispel many fond delusions, that there are no such things as trains of thought in the mind at all. Strictly speaking, there is no such thing as a thought at all. But there is the mind, ever thinking, ever remembering; and when it thus thinks or remembers, it is always some *thing* which it thinks about or remembers. Imagination is just a form of memory, a kind of mixed, miscellaneous memory, by which past events are recollected, not as they really happened, but in pell-mell combination with other events with which they have become associated by the agency of those laws which regulate all our thinking.

I have already said that memory is a marvellous and mysterious power, but, nevertheless, it is subject to law, like everything else in the universe. It would be quite beyond my plan to enter into any lengthened analysis of what have been called sometimes the laws of association, sometimes the laws of suggestion. But my subject compels me to look at the matter, and I take the classification of the primary laws suggested by Aristotle, as perhaps the best that has yet

been given—(1) Contiguity in place or time, (2) Resemblance, (3) Contrast. That is, (1) if we have once or oftener seen two persons or things together, the one seen or recollected afterwards will naturally recall the other; or if we have seen two events happening simultaneously or consecutively, the one has ever after a tendency to recall the other; (2) Anything we see or remember has a tendency to recall anything resembling it of which we have been previously cognisant; (3) Anything we see or remember has a tendency to recall anything in contrast with it of which we have been previously cognisant.

Upon these laws it is necessary I should make some remarks. All philosophers tell us that thoughts are associated or linked together by means of them; and Sir William Hamilton is careful to explain that under "thoughts" he includes feelings and conations. But as it has already been made plain that there are no such things as thoughts—no such things as feelings or conations—that these are but abstract terms, with no entities corresponding to them—that there is nothing but the mind thinking and the thing thought of—it is nonsensical to speak of one thought being associated with another. Equally nonsensical is it to speak of one thought suggesting another—a nothing suggesting a nothing. We are, to a much greater extent than we believe, the blind bond-slaves of our abstract forms of speech, and by these we are led into endless errors, believing words to be things. It is the *thing* thought of which suggests to the mind its like—its contrast—something which was connected with it in time or place when we formerly knew it. I see a horse,—the horse recalls to me a man whom I had previously seen riding it. I see a dewdrop glistening in the sun—it suggests to me a diamond. I see a dwarf—I think of a giant. In every case it is the thing which suggests the thing; or, in other words, it is things and not thoughts which are associated by mental law.

Some of the things thus associated are associated so closely that their association is described as indissoluble—that is, you cannot possibly think of the one without thinking of the other. Our acquired perceptions give a very good illustration of this. We cannot see the shades of colour on the objects around us without thinking of the shapes which these shades of colour suggest. In truth, it is hard to believe that we do not see the shapes of the objects immediately and at once. Or, to take another illustration, it is impossible to look at the letters which make up the words "William Shakespeare" without thinking of the sound of the words and of the man whom the words indicate. All the beauty and sublimity of the world depend upon these indissoluble associations. But this has been so well illustrated by so many writers, and is now so well understood, that it is unnecessary to say more about it.

In all minds the three laws mentioned are modified by circumstances which have been classified by Brown as the secondary laws of suggestion. Moreover, in different minds they act with different degrees of vigour, and this circumstance constitutes in a very large measure the character of the individual. In many minds the first law dominates—the other two are scarcely felt—and things are remembered and thought of simply according to former collocations in time or place. That is your practical, matter-of-fact man, who is troubled with no airy fancies. In other minds, the law of resemblance prevails: everything seen or remembered suggests its like: the rainbow suggests a pathway leading to heaven, dark ringlets the raven's wing, bright glances rays of sunlight. That is your poet—your man of imagination—your dealer in similitudes. There are other minds again, in which the influence of contrariety is chiefly conspicuous. No subject can be talked of but it suggests its opposite. The calm introduces the tempest, the day suggests the night. This is your man whose speech abounds in antitheses—your man of sharp con-

trasts, ever prone to swing mentally from one extreme to the opposite one. Thus habits of thought and even character are in a large degree dependent upon the proportional powers of these mental laws. But in every mind they are all found in less or greater vigour, summoning before the consciousness the objects and occurrences of the past.

Here, then, we have the laws by which the mind recalls the past, both in memory and in imagination, which, as I have already said, is only a phase of memory, and essentially consists in recalling past scenes and circumstances. It may be said to have its root in a defective memory. Perhaps in no case do we recall anything exactly as it happened—something is omitted, something is added—from the joint operation of the three laws which I have explained; and thus the result is not a pure and perfect recollection; it is partly an imagination. But in all our imaginings we are simply remembering—remembering, not methodically, but loosely—not according to old collocations and contiguities alone, but also according to the laws of resemblance and contrast. But still it is memory; memory furnishes the whole weft and woof for every web, however brilliant the colouring, which imagination weaves. We cannot imagine a new quality of matter—a quality which we have not already received by our senses and treasured up in our memories. We can merely remember—for even imagination is but memory. Memory supplies the whole materials, though they may come before us in new combinations, from the very defectiveness of memory, and the operations of the threefold law upon which memory depends.

If, then, imagination is only memory, all that has been said of the one applies to the other. But it may be said the very word imagination implies that there are images in the mind. Alas! that even words should lie, and be brought forward as false witnesses for a false philosophy. The word imagination is

the product of the old idealism, when men who used the word believed there were really images of outward things in the brain, or the mind, or somewhere else; and that the mind, shut up in its dark cave, contemplated these as pictures of a world which it could never behold. But men no longer believe in this, they no longer believe even in ideas; and yet, strange enough, though ideas have been abolished, idealism remains. Images have been overthrown, but imagination continues in our vocabulary.

I have said that all are now agreed there is no such thing as mental images—there is only the mind imagining. And the mind may imagine anything—but when it thus roams "fancy free," it is always *things* which are its objects—castles, woods, gardens, crowded cities, quiet hamlets, anything, in truth, which we have ever seen or heard of. But it may be said we often imagine things we have never seen, never even heard of. What of those grotesque, misshapen things which have no existence but in the imagination? What of ghosts and hobgoblins—what of cloven-footed devils and nimble-footed fairies—what of scaly dragons and green-haired mermaids? These have no objective reality, and therefore they must be purely mental and subjective. The explanation of all this is easy. All such imaginings come under the laws already laid down. Though such beings do not exist, the elements out of which they are formed exist, and by the action of the threefold law of suggestion bringing together in the mind things which are alike, things which contrast, things which have been contiguous in place or time, these imaginary beings are formed. In philosophical language, we remember past objects and occurrences, but in different combinations from those in which we actually saw them. We have seen a woman and we have seen a fish: out of the two we make a mermaid. We have seen a city and we have seen emeralds and diamonds: we think of a city whose walls are built of

precious stones. It must be noted, however, that the mass of mankind are incapable of such reminiscent combinations. It is the imaginative few who form the groupings, and the rest of mankind simply remember and enjoy them. We have seen pictures of old hags riding on broomsticks, we have read stories of fairies dancing on the green, we have been told there were gods and goddesses in the olden time, and so, when we think of such beings, we are simply remembering what we have seen or heard. Beyond the region of sense—outside the range of memory—even imagination is impotent. We can no more imagine a new quality than we can create a new world.

M. Tain in his book on "Intelligence" has some interesting chapters on images. He regards these as resuscitated sensations; and he is so far right, inasmuch as we can image only what we have previously sensed.* He abounds with illustrations of the power which some people have of producing vivid images of absent persons and things. Some chessplayers, he tells us, when blindfolded, can carry on two or three games at once. They have before their mind's eye a clear picture of every piece on every board. Beethoven composed some of his grandest pieces after he was deaf: he could do so only by having a conception clear as sensation itself of the sensational effect of every single note and every combination of chords. It is the same in a feebler way when we mentally hum a tune, and recognise its accuracy and beauty, though no sound be heard but by the mental ear. In truth, in such cases the images or ghosts of the silent sounds appear to pass before the

* I hope I will be pardoned for using this verb. It is curious we have not a naturalised verb like this when our language so abounds with the kindred nouns and adjectives—sensation, sentiency, sensibility, sensorium, sensible, sentient, sensory, sensational, sensuous, sensual, sensitive, &c. With the noun "perception" we have the verb "to perceive," and each of the senses has its own noun, adjective, and verb, as sight, visible, see; but there is no verb in use to indicate the act of all the senses.

ear, as in other cases the images of past visual objects pass before the eye. A painter, whose rapidity of execution was marvellous, explained his mode of working in this way: "When a sitter came, I looked at him attentively for half-an-hour, sketching from time to time on the canvas. I wanted no more, I put away my canvas and took another sitter. When I wished to resume my first portrait, *I took the man and set him in the chair*, where I saw him as distinctly as if he had been before me in his own proper person, I may almost say more vividly. I looked from time to time at the imaginary figure, then worked with my pencil, then referred to the countenance, and so on, just as I should have done had the sitter been there. *When I looked at the chair, I saw the man.*" *

These vivid images are simply vivid recollections, as M. Tain himself confesses, and follow the usual laws by which former experiences are revived.† The case of the artist is perhaps the most illustrative. He associated the sitter with the chair, and when he saw the one he remembered the other, as those persons who astonish us by their marvellous feats of memory are known to associate words and figures with articles in the room, and by ranging over the one to recall the other. It is the law of contiguity in time and place in its utmost power. In the case of the artist referred to, the images or recollections were abnormally vivid, because he had a diseased brain, and subsequently became insane. But every one of us has similar experiences, when sleep seals our senses, and leaves memory in possession of the mental field, and our acquaintances come up before us with all the life-likeness of reality.

* Tain on Intelligence, p. 45.

† "Images of a certain kind constitute recollections—that is to say, knowledge of past events. . . . Images of a certain kind, and associated in a certain way, constitute previsions—that is to say, knowledge of future events" (Ibid. p. 73).

# CHAPTER X.

## *THE FEELINGS.*

We have now exhausted the intellectual states of the mind; for all these, as I have shown, may be reduced under sensations and reminiscences. But there is still a great group of mental states which are generally regarded as different from the intellectual—I mean the emotional. We not only see, hear, taste, and remember, but we love, hate, desire, dread. These are commonly held to be purely subjective, and if they really are so, at this point the theory I have been propounding breaks down; for in order to be true at all, it must be true of every possible mental state.

In pointing out the difference between cognition and feeling, Sir William Hamilton remarks that the object of every cognition may either be the quality of something different from the ego, or a modification of the ego itself—that in the former case it may be called the object-object, in the latter the subject-object, as being merely the conscious subject projected or objectified. And then he remarks, showing the desperate shifts to which he was driven by his philosophy, "This discrimination of self from self—this objectification—is the quality which constitutes the essential peculiarity of cognition."* The discrimination of self from self—the objectification of the subject, the characteristic of all knowledge! We know only in so far as we make self not self, and the subject the object—that is, in so far as we turn everything

* Lecture xlii. vol. ii. p. 432.

inside out and upside down, and indulge in impossible contradictions ! Such is idealism ! But to pass over this : Sir William Hamilton proceeds :—" In the phenomena of feeling —the phenomena of pleasure and pain—on the contrary, consciousness does not place the mental modification or state before itself ; it does not contemplate it apart—as separate from itself—but is, as it were, fused into one. The peculiarity of feeling, therefore, is that there is nothing but what is subjectively subjective : there is no object different from self —no objectification of any mode of self."*

There is some cause for congratulation here. We have at last got rid of the preposterous absurdity of the mind in all cognition simply cognising itself—making itself the object of itself—seeing, hearing, tasting, smelling, touching itself, and then afterwards becoming conscious of itself, or forming in its chambers of imagery panoramic representations, and believing them to be authentic pictures of the past. In feeling, we are told, the mind does not feel itself. It is subjectively subjective. But neither, we are assured, does it feel anything else. It does not feel self—it does not feel not-self. In that case I should imagine it can feel nothing, and I have already argued that to feel nothing is to have no feeling. But Sir William Hamilton and his brother philosophers do not seem to think so, and have described to us a state of mind in which there is simply feeling—subjectively subjective feeling—without anything being felt. I must confess that this entirely transcends my powers of comprehension and even of fancy, and therefore I must look for an explanation of feeling elsewhere than in the schools.

But let us look a little closer at what is said of this strange mental state, in which we feel and yet feel nothing. " Consciousness does not place the mental modification or state before itself ; it does not contemplate it apart, or separate

* Lecture xlii. vol. ii. p. 432.

from itself, but is, as it were, fused into one." I had understood it was the clear teaching of Sir William Hamilton, and of every recent philosopher worthy of the name, that consciousness and the mental modification were identical: why then speak of the one being placed before the other, of being contemplated apart from it, of the two being fused into one? If they are already one, what need of this fusing process? If they are identical, how can the one be said to be or not to be the object of the other? There is here, in truth, what is conspicuous through all modern idealism—the double mind—the one cognising, the other cognised; the mental state, the consciousness surveying it. Far more reasonable than this was the respectable old hypothesis that ideas were separate entities contemplated by the mind; or the transition theory of Dr Reid, that the consciousness was one faculty of mind which took note of all the others.

We must discard idealism entirely when examining the feelings, and when we have done so, we shall discover, to our happy surprise, that they come under the simple dualistic law—the mind knowing, the thing known—the mind feeling, the thing felt. Many of our feelings are undoubtedly very vague, and this has cheated philosophers into the belief that they are objectless; but this is by no means the case. An analysis of our emotional states will show that they are not exceptions to the universal rule which requires a union of subjectivity and objectivity in order to consciousness, and that, as we cannot know without knowing something, so we cannot feel without feeling something. The something felt will moreover be found to be something different from the mind which feels it. Our ordinary forms of speech bear witness to the necessary dualism in all feeling as in all knowing, and though our forms of speech sometimes fall into error in regard to the character of the dualism, it will be found that these errors arise from false philosophies which have misled and mis-

shapen our language, and that the more simple and primitive our forms of speech are, the more truly do they express the truth. Thus it is usual to speak of feeling desires, affections, passions. Here a dualism is recognised—the feeling and the thing felt; but such phrases err in regard to the true object of feeling, and are not more correct than if we were to speak of feeling feelings, as desires, affections, passions are only feelings. We do not feel feelings : we feel, love, hate, desire; these verbs express the whole mental portion of the fact; but of course there is always a something outside the mind which we feel, love, hate, or desire. Let us now take the most primitive way of expressing the same truth, and we shall see how correctly it brings out the dualism. "I love her—I hate him—I desire a book." Here there is the lover and the beloved, the hater and the hated, the desirer and the thing desired. The feeling in every case has its object. It is usual also alike among the artificial and the philosophic to speak of feeling joy, grief, pleasure, pain, &c. Now these phrases, while testifying to the necessity of finding an object for feeling, are wholly false and misleading. Joy, grief, pleasure, pain, are nothing apart from the mind which feels them, just as a sensation is nothing apart from the mind which feels it. A sensation is simply the mind in a certain mood, so are joy, grief, pleasure, pain. To say, therefore, that we feel joy or grief, is to say that we, feeling, feel a feeling. Joy and grief are not the objects of feeling,—they are themselves feelings. We must therefore find other objects for them; and an object they always have, as it is impossible to rejoice or to grieve without having something to grieve or rejoice about. More correct as more natural it is to say, "I joy at this gain," or "I enjoy this gain;" "I grieve at this loss." Here the subject and the true object stand in their proper relation to one another. Let it simply be borne in mind that in all knowledge there is a knower and a known, that in all feeling there is a feeler

and a felt, a duality and not a unity—and this simple fact will act as a master-key to open the door of many mysterious chambers in mental science which have been closed for two thousand years to every philosopher, though they have been standing wide open for every other man to enter in.

Many metaphysicians have denied that there is any real distinction between cognitions and feelings. Admitting the classification of the mental states into cognitions and conations, they maintain that what are usually called feelings may be embraced under one or other of these two classes. Krug, a Kantian philosopher, from whom Hamilton has largely borrowed, argues that so far are feelings from being recognisable as separate mental states, their existence is inconceivable and impossible. He urges that mental operation exhibits a twofold direction of its whole activity,—one inwards, another outwards,—and that between these two it is impossible to interpolate a third. Like Sir William Hamilton, I must acknowledge myself unable to see the force of this reasoning, partly, perhaps, because I do not clearly see its meaning. Had Krug argued that we can conceive only of external objects acting inwards upon the mind—this being cognition; and of the mind acting outwards upon external objects,—this being volition or conation, and pointed to the sensory and motor nerves, the one bearing impressions in, the other carrying them out, as the vouchers of his opinion, I would have understood his argument and admitted its force, though I did not allow that feeling was thereby banished from the mind. I allow, and even maintain, that all feeling implies cognition. We cannot love, hate, desire, or dread anything without knowing it. I moreover believe that our loves, our hates, our desires, and our dreads are all founded upon our experiences of pleasure and of pain, and that our pleasures and our pains are all primarily sensational; but this does not prevent me

loving a thing when I know it, or from recognising that my loving it is something different from my simply knowing it.

But here the question may arise, since we are not conscious of our mental affections, seeing these are in no case the objects of our knowledge, how can we discriminate one from another—how can we know that the one state is cognition, the other love? To a being coiled up in idealism, unable to see things as they are, the question may appear a poser, but it is not really so. In the first place, it may be premised it might equally well be asked how the mind, unconscious of its own affections, can distinguish between seeing and hearing, between tasting and smelling, between sensation and memory? The difficulty, if there be a difficulty, applies to all discrimination of the mental states.

It may even be pushed back into the region of pure idealism. The idealist says he recognises his mental states, and therefore he recognises the difference between them. He knows that he knows. But it may be asked how does he know that he knows. Who will answer for the knowledge of the knowledge? If the primary consciousness cannot discriminate different objects, how can the secondary? But without further thrusting the difficulty upon others, let us rather meet it, and grapple with it ourselves. It arises entirely from the delusion that we require consciousness to reveal consciousness, light to manifest light. The ego is conscious: it is capable of different kinds of consciousness; and these are *ipso facto* discriminated. Every conscious state is self-evidencing. In regard to sensations, their differences are determined not merely by their essential nature, but by the difference of their object, even when we may fancy their object the same. To illustrate my meaning: I see a man; I know him in one way. I hear him, I know him in another way. The man as seen is different from the man as heard—the one is a vision, the other a sound; but I have had both

these mental consciousnesses of him; in simpler phrase, I have both seen him and heard him; and I call the one consciousness "seeing," and the other "hearing." The things being different, are different. In regard to the discrimination between sensation and memory and desire, the difference is rather in the mental state than in the object. Memory is different from sensation, and desire from both. I see a man; I afterwards remember the same man. The object is identical, but the reminiscence is different from the sensation. I see flowers; I love flowers: the objects are the same, but the loving is different from the simply knowing. But as the present mental mood or moods is just the present ego, the whole thing amounts simply to this, that the ego loving is different from the ego simply knowing. Perhaps the object may be said to be somewhat different too as mentally realised, for we always invest loved objects with imaginary attributes.

Many different classifications of the feelings have been proposed; it is enough for my purpose to divide them into Appetites, Desires, and Affections.

Appetites.—Under this head we rank Hunger, Thirst, Lust, Sleepiness. Sense lies at the basis of all these, so that they might be regarded simply as sensations. But they have certain characteristics which mark them out as peculiar—(1.) There is an uneasy sensation which simulates desire; (2.) When their object is attained they are sated and cease; (3.) They return periodically. Let us analyse hunger and sleepiness.

*Hunger.*—When we have been without food for sometime, we have the uneasy sensation we call hunger. The sensation, no doubt, arises from certain conditions of the nerves of the alimentary canal. We almost seem to feel that organ, and to feel it painfully, though we feel it at no other time, notwithstanding the analytic chemistry which is constantly going on there. Dr Reid says, that with this uneasy sensation there

is conjoined a desire for food; but he admits that new-born infants cannot have this desire, as they know nothing about food. And yet they have hunger, and therefore we may conclude that the uneasy sensation without any supplemental desire is what constitutes hunger in its purest form. But a new-born infant has a tendency to suck when it is hungry, and therefore there must be some connection, physical or psychical, between the two. In after life we distinguish between the sensation and the desire, because, when we feel the uneasiness, we know what will satisfy it; but it is very questionable if we do not here make a difference where there is none. The sensation is certainly the root of the desire, if it be not the desire, and the laws of suggestion seem to be sufficient to explain the rest. We feel somewhat painfully the empty stomach, and the empty stomach suggests the eating of food, as we have learned by experience that this alone satisfies and soothes it. This seems to be the whole matter. How the infant knows to suck is a mystery; but the state of the stomach probably affects in some way the nerves connected with sucking and swallowing, and so creates the tendency.

*Sleepiness or Drowsiness.*—This well-known feeling is now properly ranked among the appetites, for it has all their characteristics. There is the uneasy sensation—the satiety upon enjoyment—the periodic return. I think it will not be doubted that the feeling is purely sensational, and yet it strongly simulates desire. We do not desire to sleep, because we are drowsy—the drowsy feeling is the desire. It sometimes becomes so strong as to be irresistible. The sentinel in his sentry-box, the nurse by the sick-bed, know how hard it is to resist it. Keeping a poor wretch from getting a moment's sleep for many nights together has sometimes been resorted to as a means of terrible torture. The chief seat of the sensation is the eyelids, and it has been

admirably described in the exquisitely simple and beautiful nursery poem, "Wee Willie Winkie."

Thus sensation forms the basis of the appetites, and accordingly what has been said of the one applies with equal force to the others. Properly speaking, we do not feel hunger, for hunger is itself the feeling, but we feel our alimentary canal in a certain condition, and this feeling we call hunger. We do not feel drowsiness (for drowsiness is only an abstract term), but we feel our eyelids, our eyeballs, less or more our whole frame, in a certain state, and this we call drowsiness. Thus all the facts connected with the appetites square with our theory of knowing and feeling.

Desires.—The desires have not, like the appetites, their root in sensation; but yet they may all be traced back to sense, inasmuch as we desire only what we have experienced as pleasant, or at least been told is pleasant, and dread what we have learned, by experience or otherwise, is unpleasant. On this account, some mental analysts have attempted to reduce desire into a reminiscence of the agreeable. But desire is essentially different from reminiscence, as it is different from sensation. Being an ultimate and original principle of mind, it cannot be defined—it cannot even be illustrated by anything like itself, for there is nothing in the world like it; but every one knows what is meant by desiring, and every one knows it is different from either sensing or remembering. The mind has a capacity of desire, as it has of sensation and memory.

Desire implies knowledge. We must know a thing before we can desire it. To desire a thing which is not present to the consciousness is self-contradictory, for desire is itself a form of consciousness. As all consciousness must have an object other than the conscious mind, so must desire; and so we find it is. All the objects of our desires are outside realities. We desire a house, a horse, money; we wish to

see a friend, we are anxious to go abroad. Our mental moods are never the objects of our desires—to make them so would at once be felt to be ridiculous as well as destructive. Thus, this class of feelings, instead of being subjective, is intensely objective. The ego, or mind, is indeed the subject of the desire, but the object desired is always something apart from the desiring mind. Whilst all our metaphysicians with one voice have taught that in sensation the mind is conscious only of itself so sensing, I do not know that one philosopher has ventured to say explicitly that in desire the mind only desires itself so desiring. It had been too absurd; and yet really not more absurd than to say that the mind sees only itself when it sees, and hears only itself when it hears, and smells only itself when it smells. Yet that is idealism.

Affections.—Under this class are included love, hate, anger, jealousy, joy, grief, and all other passions and emotions.

In all these there is the old dualism—the subject and the object—the feeler and the felt: and in no case can the one be identified with the other. We do not feel love, hate, joy, or grief; for we do not feel feelings: we cannot be said properly to be conscious of states of consciousness. We love and hate (and both love and hate imply consciousness), and there is always a something which we love or hate.

It is the mind which loves and hates. It is the seat of every form of consciousness, and this is one of its forms. "To love" is different from "to know," but both are forms of consciousness. Loving involves knowing—knowing does not involve loving. Before we can love a person, we must know him; we may know him, and not love him. There is therefore more involved in the one consciousness than the other.

When we love, the object beloved is, of course, the direct

object of the affection. Strictly speaking, we cannot be said to love unless when the loved object is present to the loving consciousness; just as we cannot be said to know unless when the object of knowledge is present to the knowing consciousness. But as a man may be described as learned, though very little of his wealth of learning be at once before his intellect, so a man may be spoken of as loving, though both the emotion and its object should, for the time, be entirely out of his mind.

The beloved person or thing is the true and direct object of love—ever the central figure in the loving consciousness. But round this central figure there are always clustered a number of happy memories, and these increase the emotion. Indeed it seems to be out of these that love is made—the remembrance of kind words, of kind looks, of kind deeds; but yet love is not mere remembrance. The remembrances are transmuted into love when they are dropped into the warm heart, like ice turned into steam under the influence of heat.

But a sensational element mingles in almost all our affections. Our affections, especially when in the least degree violent, act outwardly upon our living framework; we are sensible of this bodily disturbance, and this sensation commonly forms a very prominent part of the compound state of consciousness. Many emotions cause such a disturbance about the heart, sometimes such a flutter there, that we have an indescribable sensation in that region, and this undoubtedly led to the old belief that the heart was the seat of the affections. Other emotions, especially fear, influence the visceral movements in a way that is distinctly felt, and has found a record in Hebrew poetry. Every one knows the "chokey" feeling which accompanies certain kinds of excitement. Young orators experience the parched throat and the tongue cleaving to the roof of the mouth. Young

maidens feel the blood mounting to their blushing cheeks. Almost every emotion has its own peculiar effect upon the sympathising body, and the keenly sensitive mind feels it: thus wonderfully do the two parts of the one living organism act and react upon each other.

In most of our emotional states, these bodily reactions constitute the chief part of what we feel. In the gentler emotions, the sensations, though present, may be little thought of, but nevertheless they exist. In our more violent emotions, our whole body may quiver or even be convulsed, and the sensation be more powerful than any other we can possibly have; and, in this case, the violence of the emotion is measured by its effect upon our sensitive frame. We feel, and that intensely, but what we feel is in a large measure the blood-oppressed brain, the quivering lip, the palpitating heart. And as our bodies are constituent parts of ourselves, portions of the living, thinking, feeling unity which we call the I or ego, in feeling these bodily agitations we feel ourselves, and this gives to such feelings a more subjective character than when the object is entirely apart from us.

In almost all affections, then, the consciousness embraces three things—(1.) The object of the affection; (2.) The circumstances associated with it in memory; (3.) The bodily sensations excited by its presence.

Thus the appetites, the desires, and the affections all prove the universal rule that there must be a union of subject and object in order to consciousness. In desire, in love, in hate, there is not the mind conscious merely of its own acts and affections, and of nothing else; there is not subject-objectivity, much less subject-subjectivity, as Hamilton would have it; there is the mind desiring, loving, hating some outside object. It is the mind that desires, loves, hates; but it is something other than the mind which is thus desired, loved, hated. To think of the conscious mind as simply consciously loving or hating its

own loving or hating modification is too absurd. To think of it hating or loving, and yet hating or loving nothing, is more absurd still. Yet this is idealism, on the ground on which it was imagined it had its stronghold, amid the feelings and affections which have been described as subjectively-subjective.

Before quitting this subject, it is necessary I should say something regarding the theories of pleasure and pain. The nature of pleasure and pain occupied the thoughts of Socrates, of Plato, of Aristotle in the ancient world, and it has greatly exercised the minds of many philosophers in the modern world. Sir William Hamilton has devoted three lectures to the subject, in which he is more abstruse and more unsatisfactory than usual; and Mr J. S. Mill, with his piercing, peering eyes, has as usual picked at least half-a-dozen holes in his theory. Sir William Hamilton says, "Pleasure is a reflex of the spontaneous and unimpeded exertion of a power, of whose energy we are conscious: pain, a reflex of the overstrained or repressed exertion of such a power." The word "reflex" is here somewhat ambiguous, but it appears to be used, as Mr Mill points out, to indicate "concomitant," or rather "result;" and thus we are told not what pleasure and pain are, but what they result from. But, in truth, pleasure and pain cannot be defined; they are what they are, and there is nothing else like them; and that is all that can be said of them. Pleasure, we are told, is the reflex of the spontaneous and unimpeded exertion of a power of whose energy we are conscious. By "energy" must be here meant an energy in action, or more properly, the acts of the energy. "There are powers in man," he says, "the activities of which lie beyond the sphere of consciousness. But it is of the very nature of pleasure and pain to be felt, and there is no feeling out of consciousness." It is difficult to understand what Hamilton here meant by "activities beyond the sphere of consciousness;" for he is not speaking of faculties as opposed to acts

and affections, nor is he thinking of his latent modifications ; and I can only account for the phrase by supposing that as he wrote it a glimpse of the true light had broken in upon his mind. As I hold that the mind is in no case conscious of its own faculties, energies, activities, acts, or affections, I cannot accept of his definition as a true theory of pleasure and pain. To be the reflex of the exertion of a power of whose energy we are conscious, is to be the shadow of a shade.

All pleasure and pain is, I think, primarily sensational. Some objects of sense affect us pleasurably, others painfully —that is the explanation of the whole matter. I have already said something of this when examining sensation, but it is necessary I should here say something more, though it should be but in the way of repetition and fuller explication. When I taste a bit of sugar, I feel it to be sweet, and I feel it also to be pleasant ; but these two things are combined in the one taste. We are not, therefore, to regard its sweetness and its pleasantness as two separate properties, like its sweetness and its roughness. It is its sweet property which affects us pleasantly, and thus, while we primarily feel it to be sweet, we secondarily, but in the same act, feel it to be pleasant. When I taste aloes, the taste, on the contrary, is bitter and unpleasant. How the sugar is sweet and the aloes bitter we cannot tell, but so it is. How the one should affect us pleasantly and the other painfully we cannot tell, but we may conjecture it is from their different actions upon the nerves of sensibility, though anatomists have not yet penetrated to this truth. We know at least that a soft touch is agreeable, and a hard touch sore.

All sensations are probably less or more pleasant or painful, but the great majority of them are so to so small an extent that they are regarded as indifferent, though not really so. There is a strong streak of truth in the Aristotelian theory of pleasure and pain adopted by Sir William Hamilton, though not the

exclusive truth. There is high pleasure in the moderate exercise of all our powers, and that is really what the theory amounts to. There is pleasure in the easy motion of our limbs. There is pleasure in gently sucking in the morning air. There is pleasure in that indefinite feeling of healthiness and vigour which is the result of all the parts of our complex machinery working smoothly and well. On the other hand, there is pain when our limbs are exercised to fatigue, when our minds are worked till a comatose state begins in the brain, or when any one portion of our living and sensitive organism is not performing its proper work. But all this, it will be observed, is purely sensational, though originating, in a large measure, in unknown conditions of our nervous system. Sir William Hamilton felt he had not sufficiently taken into account the different impressions produced upon us by sensible qualities when he referred to the smell of a rose and of asafœtida, and was obliged to confess he could not explain how the one was agreeable and the other the reverse. It may be, as I have already conjectured, by their different actions, irritating or otherwise, upon the nerves of smell; more than that cannot be said.

Pleasant sensations become pleasant reminiscences; painful sensations, painful reminiscences. Thus pleasure and pain live in the memory even after they have ceased from the senses. They are even projected by imagination into the future, and we desire to feel again the happiness we have experienced before, or we shudder at the thought of the possible recurrence of past disasters. Thus our whole existence is tinged with pleasure and pain. They are the light and the shade in the picture of life, the shower and the sunshine of our summer's day. It is because reminiscence and her daughter imagination play so large a part in our mental history that grief and gladness are so often intermingled in our mental moods. "The music of Carril was pleasant, though

mournful to the soul," because it awoke memories of happy as well as of sorrowful times. There is a real luxury in grief, because we cannot think of the dear dead without recalling the many joyful incidents of their lives; and thus it often happens that the mourner, who is sitting by the coffin which contains all that was dearest to him on earth, wakens up from a reverie in which he was living over again the happiest days of his life; but he wakens up from these pleasant scenes only to burst into fresh grief when he feels that now the light of his life has for ever gone down. Thus curiously are grief and gladness interlaced in our chequered mental history. The laws of reminiscence bring up the gloomy and the glad indiscriminately; or rather, by the powerful law of contrast, the gloomy has a tendency to bring up the glad, and the glad to bring up the gloomy. And it is well that the one thus modifies and mitigates the other, and that we can never be either absolutely wretched or supremely happy. We naturally mingle trembling with our mirth, and joy with our misery.

# CHAPTER XI.

## *MENTAL ACTION.*

We have still to consider the will and its exercise, volition, before we have exhausted the mind's powers and capabilities. In pure knowledge the bodily organs act inwardly upon the mind; in volition the mind acts outwardly upon the bodily organs; and in harmony with this there are the two sets of nerve-fibres—the sensory and the motor. The mind is not only acted upon—it acts. It is a great centre of force, originating and controlling bodily movements, and through these setting other agencies in motion. By some it is thought the ultimate source of all power.

Volition being an original, ultimate fact, cannot be defined logically; but it may be described as the state of mind which immediately precedes and causes all those bodily movements which have a purpose or design. It is the mind's intelligent action upon the body, and that action always shows itself in originating or controlling movements. Volition is subjective only in so far as it is a state of the ego, but, like every other state, it has an object. "Every act of will," says Reid, "must have an object. He that wills must will something; and that which he wills is called the object of his volition. As a man cannot think without thinking of something, nor remember without remembering something, so neither can he will without willing something. Every act of will, therefore, must have an object; and the person who wills must have some conception, more or less distinct, of what he wills." * Thus, then, it appears that in willing, as in knowing and feel-

* Active Powers, Essay ii. chap. i.

ing, there must be a union of subjectivity and objectivity—the willer and the thing willed.

But what, it may be said, is present to the consciousness when we will anything? I answer, simply the thing willed. Volition is a conscious state, in which we know what we will, while we will it; but though having the volition, we cannot properly be said to be conscious of it, for that would be to make a conscious state the object of itself. Let us look at the absurdity in which any other supposition would land us. The idealist would say that we are conscious of the volition, but he would explain that the act of consciousness and the act of volition were identical. Now, apart from the difficulty of a thing being both subject and object—different and yet identical at the same time—there is this further difficulty: Will is simply the mind willing; consciousness is simply the mind conscious or conscient; and, in the case supposed, the volition and the consciousness of it are identical; which amounts to this, that in volition the mind consciously wills itself so willing. Will any one accept of that as a rational explanation of volition?

Let any one pause and reflect what he is conscious of when he wills. Let him try hard to turn the mind's eye inward—let him cross-question consciousness; what will he find? Nothing but the thing willed. If he has caught a glimpse of anything else, let him say it—let him describe it. I remember I was somewhat startled, and even shocked, when I began to make experiments of this kind. I could discover nothing—positively nothing; all was vacuum—dark, impenetrable; and I began to wonder if there were such a thing as volition at all, or at least, if we had any evidence of its existence and action. But then the truth dawned upon me, that the mind, from its very nature, must be unknown to itself; that its whole essence consisted in knowing; and that thus it could not be its own object; but that, while it thus sat in darkness, unseen but

seeing, its consciousness reached to everything, from the pressure of the blood on the arteries of the brain to the light which streamed from the most distant stars.

So far as my main purpose is concerned, I need say nothing more regarding volition; for I have already shown that it follows the universal law of mind—never conscious of mental acts, but ever conscious of material objects. A few things, however, remain to be said, which may throw additional light upon the nature of the mind's outward-bound activities. Our corporeal actions, so far as dependent on mind, appear to be threefold—voluntary, ideo-emotional, and reflex-sensational. Let us glance at these in order.

1. *Voluntary action.*—The mind, in that state which we call the will, has a power of originating bodily movements. It has been disputed whether the will is anything different from the last thought before the action. Now the act of volition is undoubtedly always the last mental modification before the bodily act; but as every thought is the last thought before the succeeding one comes, and as every thought is not followed by bodily action, this shows that the mind willing is different from the mind simply thinking. We therefore say that volition is different from thought. But there are many curious instances in which we seem, at least, to do things without specially willing it. In writing, how often do we pass over a word, or several words, and write another to which our train of thought had hurried us forward. Do we will this? Again, in speaking we sometimes transpose the words of a phrase. Instead of saying, "the nature of punishment," we perhaps say, "the punishment of nature;" instead of "the tail of a dog," "the dog of a tail." Do we intend to do one thing, and will to do another? Sometimes, again, when we are yet speaking, we change our mind as to the word we are to use, and the result is probably a mixture of the two intentions. We intend to

use the word "rascal," but suddenly changing, we wish to say "wretch," and what we really say is "ratch"— the "ra" being the result of the first intention, and the "tch" of the second. Was this compound bastard word the offspring of an act of will? And many other curiosities of volition could be quoted which appear puzzling. I am inclined, however, to think that all these instances come under the one law of volition, and that, in order to every one of them, there must be not merely a thought or an intention, but a distinct act of the will. In regard to the first case, I think we may explain it in this way. Being carried forward by our train of thought, we forget for the instant the pretermitted words, and will to write the one which we do. In regard to the second, the phrase comes up before us confusedly and in a transposed order, and having it so presented, we will to speak it as we do. In regard to the third, the will has changed as rapidly as the intention; while we were pronouncing the word, we willed to say "ra," we willed to say "tch," and the result was "ratch;" and all this was done so instantaneously, that the misshapen mongrel was out before we could stifle him.

The range of the will's influence is limited, but within its limits it is omnipotent. No act of volition will stop the current of our blood, the action of our liver, or the growth of our hair. We cannot, by taking thought, add a cubit to our stature; but we have but to will to raise the arm, and it is raised; to walk, and we walk; to stand, and we do so. In all such cases, the mental volition appears to be the immediate cause of the material act. And if there be profound mystery in material qualities exciting states of consciousness, there is a still profounder mystery in states of consciousness acting, as they do act, upon our material organisation. But the most curious thing is this, that the end we will is attained only through the interposition of nerves, and muscles, and bones, of the very existence of which we were probably igno-

rant. We cannot move our little finger without bringing into play numerous nerves, and muscles, and bones. We do not consciously will them to do their duty; probably we do not know they exist; but they nevertheless hurry, as it were, to do our bidding. The willing of the end sets in motion all the machinery by which alone it can be accomplished. The precision with which the will thus accomplishes its purposes is something marvellous. Perhaps there is no more striking example of this than the regulation of the voice in speaking and singing. In singing, the tones depend upon the tension and relaxation of the vocal chords, produced by the muscles of the glottis; and accomplished vocalists are said to be able to regulate these to the ten thousandth part of an inch, and in truth do so every note which they sing, for less nicety in the regulation of the chords would imply less precision in their singing.

Professor Bain has well shown that the will (in part at least) is primarily generated out of native impulses. The healthy infant, when it is bounding and kicking in the arms of its nurse, is doing so more from inward impulses than from purpose and design. But gradually these instinctive impulses abate, and we act intelligently, and with some object in view; though many men, and more women, are the creatures of half-blind impulses to the last.

2. *The Emotions.*—The emotions affect the body altogether apart from the will. We feel ashamed, and the blush unbidden mounts to our cheek; we feel fear, and become pale; we are happy, and our heart throbs fuller and more boundingly. No feeling can flit through the mind without producing some impression on the body. The ripple on the surface of the mental ever spreads outwards, and touches the corporeal. What is still more remarkable, there have been cases in which the muscles have been paralysed to the will, and yet have remained subject to the emotions.

Dr Carpenter tells us of a man whose right arm was so completely paralysed that he had no voluntary power over it, but he never met a friend without its being violently agitated, as if his emotions were driving it on to do its duty, and shake hands.*

It is over the features of the face that the feelings exercise the greatest control. In every expressive countenance (expressive because it indicates by its constant changes the state of the mind), there is a constant play of the features. We do not will our eyes to glow, our eyebrows to rise, our mouths to wrinkle into a smile; but it is so under the influence of passing emotion. The voice is equally affected: every one knows how it changes its tone with every change of feeling; and how it is one of the arts of the orator to imitate this. "In children," says Professor Bain, "with whom no influence is as yet at work to suppress the free play of emotion, the coincidence may be pronounced invariable. Every stimulus, whether of pleasure or of pain, animates the features, the vocal organs, and the whole moving system."

Every one is acquainted with the state, half physical, half mental, which we call "being nervous." It is an emotional mood of mind influencing, and perhaps rendering somewhat "shaky," the body. Every one also knows what is meant by getting a "start," though the physio-psychological explanation of it is not so clear. We suddenly see a person, when we had not expected to see any one, and we start back in affright. We unexpectedly hear a sound—it need not be a loud one, if it be only sudden and unexpected—and we start again. It seems to be an emotional, rather than a purely sensational influence

* Dr Nairn relates in the *Med. Chir. Transactions*, vol. xxxiv., a case in which a portion of the spinal cord had become softened by disease, and the patient had no voluntary power over his limbs, but they were subject to incessant chorœic movements, and these were affected in a marked manner by the emotions. See Carpenter's "Physiology," p. 524.

which takes the breath from us, and perhaps makes us almost jump from the ground.

Every emotion has of course its own object, but in no case is this object the physical effect to which I have alluded. A young woman hears an indelicate allusion, and is ashamed, and blushes. The indelicate allusion is the object (as it is the cause) of her shame; the blushing is merely its physical accompaniment. In this respect the action of emotion is different from that of volition, as the action willed is always the object of our volition. We will to do a thing, and we do it; the thing willed and done being all the while present to our consciousness.

Perhaps I should have mentioned ideas as a distinct source of mental-material action; for our beliefs, our thoughts, our opinions, have undoubtedly a direct influence upon our bodily states. But I am inclined to regard this influence as of the same kind as that of the emotions, and have therefore ranked both under the same head. It may be doubted whether our ideas must not be less or more of an emotional character before they react on the body.

3. *Sensation.*—Sensation, by a reflex influence, is a common source of corporeal action. It is probable that almost every vital action depends less or more upon this.

Physiologists tell us that for a reflex act we must have three factors, viz., a nerve centre and a sensory and a motor nerve, and by the conjunction and co-operation of these three this action and reaction in the system takes place. The sensory nerve, also called the incident or afferent, is supposed to carry an influence to the centre, from which it is reflected along the motor, excident, or efferent nerve to the muscle. As an example of this, let us take the vertebral part of the spinal cord with the nerves which rise from it. The cord consists of an anterior motor and a posterior sensory portion, and the spinal nerves arise by two roots, one of which is motor,

and the other sensory. The former is connected with the motor portion of the cord, and the latter with the sensory, and a number of the fibres of these nerves have been proved to be continuous with the poles of the cells in the interior of the cord. The sensory fibres, in the language of physiologists, carry in the sensation or sensational influence to the cord; and the motor fibres carry out the influence which gives rise to the movement—this influence being reflected from the sensory to the motor fibres by the intervention of the nerve centre. This may take place even when the connection with the brain has been severed by injury done to the spine.

Let us take some examples of this sensational reflex action. The cut of the cat on the garrotter's bare back makes him howl in spite of himself. A putrid smell makes many people vomit, and so instantaneously, that they seem to smell the offensive matter in their stomach rather than with their nose. Any irritating substance, such as snuff, taken into the nostrils, makes us sneeze. A quantity of mucous in the air-passages of the lungs makes us cough. A feeling of cold makes us shiver. In all these cases there must be a stimulant exciting the sensation, and through it leading to the reflex action. And so it is in all reflex action. The blood stimulates the heart, the food the gullet, the fœces the bowels; and thus sensation-stimulants are the great propelling power of the system.

But physiologists declare that all these actions are not only reflex, but automatic, performed altogether apart from the mind and all mental agency. Let us separate them into two classes. (1.) Those in which sensation is prominent. (2.) Those in which it is not prominent. Under the first class would come the shout of bodily pain, vomiting from putrid smells, sneezing, coughing, &c. In all these cases it must be confessed there is a sensation present, but it is maintained the

sensation is not the cause of the action. The true cause is a certain irritation of an afferent nerve, of which the sensation is only an accompaniment. The result would be the same though there were no sensation—no consciousness. Now, though it is quite possible to conceive nerve-action apart from consciousness, it is not so easy to suppose that the actions alluded to occur in that way. It is not easy to believe that it is not the pain of the cat which makes the garrotter wince and howl; that it is not the horrid smell which makes us vomit; that it is not the tickling sensation in the nose which makes us sneeze. In the last case, we know the sensation generally rises in intensity till we can no longer resist it, and we find relief in an explosion.* Between the sensation and the reflex action there is the uniform antecedence and consequence of causation.

But, further, there is no proof that the sensory nerves connected with reflex action are capable of any irritation or excitation other than that implied in sensation. There is rather proof of the reverse; for it is now ascertained not only that the function of the sensory nerves is sensation, but that every nerve is insensible to every sensational impression but that which is peculiar to it. The optic nerve is sensible only to sight; the auditory only to sound. A blow upon the eye produces a flash of light; a blow upon the ear, a murmuring sound; a galvanic shock upon the tongue a peculiar taste. A pressure upon the hand produces neither sight, nor sound, nor taste, but what we call the feeling of touch. I think we may therefore conclude that the function of the sensory nerves is purely sensational, as their name implies. The object produces the sensation, and the sensation produces the reflex motor action. The pain produces the cry, the smell the vomiting, the felt irritation the sneeze.

* Many people sneeze when under a strong light, but the stimulus here also is sensational, as the light must be seen.

I have hitherto alluded only to those cases in which sensation is prominent, and all I have here pleaded for would be conceded by some physiologists; but what, they would ask, of all those numerous and much more important reflex actions upon which life depends, and connected with which there is little or no trace of sensation or consciousness at all? What of the action of the heart, of the lungs, of the gullet, of the bowels—what of the contraction and dilation of the pupil of the eye with every varying degree of light? These must all be automatic, independent of sentiency, independent of mind; for we are not even conscious of them.

I should be inclined to concede this, and believe that such vital actions are carried on altogether apart from mind, if I did not know that nature is generally uniform in her operations, and that all the probabilities are against there being two kinds of reflex action in the same organisation. I am therefore driven by stress of circumstances to the conclusion, that those reflex actions in which there is hardly perceptible sensation are nevertheless dependent upon sensation, and therefore upon mind, as well as those in which sensation is prominently strong. They are automatic, but mind is part of the automatism. Let the following facts be well weighed.

1. In every case of reflex action there is a stimulus. This is true in regard to the action of the heart, of the lungs, of the pupil of the eye, as well as in the case of sneezing, vomiting, coughing. If a stream of fresh blood were not constantly pouring into the heart and stimulating it to action, it would cease to contract and dilate. Now, I have already argued that the nerves upon which this action depends are incapable of any stimulus or excitement but that connected with sensation. Every afferent nerve is a sensory nerve, and the afferent nerves are not known to have any other function than that of sense. By their union with the motor nerves they indeed stimulate these into play, but as their own func-

tion is sensory, we must infer it is by this function they act upon the motors.

2. There is sensation—consciousness—connected with every reflex action.

We, in truth, feel the blood pouring in and out of our heart. We feel the same life element in a venous state entering our lungs and producing the reflex act upon which our breathing depends. I know this will be a hard saying for the physiologists, but let us reason together about it.

There are dim sensations as well as brilliant ones, and even those that are brilliant become faint through permanence. What we always feel we hardly seem to feel, though feel it we nevertheless do. The mill-girl, after she has been a month at her work, never hears, or rather never seems to hear, the unceasing rattle of the machinery around her. It is a permanent sensation—forming a part of her conscious self while she is in the mill.

In like manner, when we go into a room in which there is a slight smell—say a dining-room after dinner—we feel it when we first enter, but it is only for a moment or two, for it is then absorbed and lost in our general continuous consciousness;—but that it is an element in our permanent consciousness is certain, for the effluvia are still there, and our organ cannot have suddenly lost its power.

So with almost all our internal sensations. They are permanent, unchanging, they are a part of our being. Thus, from the moment we came into the world till now, we have breathed; the first draught we got of the upper air gave us such a curious sensation that we probably cried lustily; but from that instant till now the slightly-fluctuating sensation has continued, and forms part of that great compound consciousness which we call self. Though there be no marked, that is, no strongly contrasting sensation, so long as everything proceeds in its usual way, the moment anything ab-

normal occurs, we perceive the difference; and be it observed, we could not know that a new state was different from an old unless we had consciously known the old. Let us pass from the open air into a crowded stifling room. Are not our sensations somewhat different? Let an invalid pass from the hospital out into the mild morning air. What sensation in the world more delightful than the first gasp of it!—and I say the first, because the second and the third and the fourth are not so markedly felt, just because they begin to form a part of the permanent consciousness. Then what agony when there is no air to breathe or lungs that will not breathe it!*

Thus I think we must conclude we are really sentient of the air entering our lungs and filling every cavity there, and then expelled again when robbed of its oxygen, like a tippler driven out of a tavern after he has been sponged of his money. So it is with the blood. The heart, the arteries, the veins, are all sentient of its flow and ebb. The sensation is indeed so continuous, so uniform, that perhaps we do not believe we have it at all, forgetful that it is an element in our composite consciousness. But let the smallest change occur to break the uniformity; let the composition of the blood be deteriorated, let the action of the heart be suspended for an instant or only slightly hampered, let an artery be stopped, and we instantly feel the difference—and we could not feel the difference unless we had felt the former normal state. It is certain that all those feelings which we denominate sickness,

* "The characteristic sensibility of the lungs," says Mr Bain, "is manifested in the state termed suffocation, which will sometimes manifest itself clearly in the midst of a complex mass of other painful sensations. . . . This sensation, so painful, intense, and keen, is aggravated, in the extreme cases, by the circumstance of growing worse every moment until relief or rupture ensue. It may rank as the most unendurable of all human sensations; while the fact that causes it is the most dangerous to human life of any that can occur" ("Senses and Intellect," pp. 130, 131).

faintishness, nausea, headache, numbness, are just abnormal sensations, from some function being in an abnormal state.

Let us take a still more testing case. The pupil of the eye is constantly contracting and dilating according to the varying degrees of light, and this it does by virtue of reflex action. Now, most people would say that this is done altogether apart from consciousness; and in truth we are unconscious of the contraction and dilatation, or only so dimly so, that our consciousness is on the very verge of unconsciousness. But beyond all question we are conscious—the eye is conscious—of the change in the light which causes the change in the pupil. It is the light affecting the eye—visually affecting it—that causes the pupil to contract and dilate; and if we did not feel the light to increase or decrease, our eye's diaphram would not vary in sympathy with it.* If our eyesight be good, we observe every variety of light and shade; for that amounts only to this truism, that every degree of light produces its own impression on the visual consciousness; but it is only when the difference is great, as when we pass from darkness into light, that a deeply indented impression is made on the sense, and perhaps chronicled in the memory. All else flits over the mind like swift-flying shadows.

If what I have here said be true, and it is difficult to doubt it, there is sentiency, consciousness, connected with all

* Dr Carpenter does not quite allow this. "Although the contraction of the pupil," says he, "is usually in close accordance with the *sensation* occasioned by the impression of light upon the retina, yet there is evidence to prove that the sensation of light is not always necessary; for even when the sight of both eyes has been entirely destroyed by amaurosis, the normal actions have been witnessed in the pupil, in accordance with the varying degree of light impinging on the retina" (sect. 496). He allows, however, that such cases are rare, and that in most cases of amaurosis there is no action of the pupil. I have mentioned elsewhere (p. 168) that the pupil contracts even after the eye is excised, but not from reflex action. Moreover, in many cases of amaurosis there is a faint perception of light.

such reflex actions, as the play of the lungs, the palpitation of the heart, and dilatation of the pupil of the eye; and much more certainly in all such acts as swallowing and defœcating. The usual phenomena of paralysis are strongly corroborative of the proposition I am endeavouring to prove. When sensation is lost, so is motor power; when sensation is restored, motor power returns along with it. The want of sensibility and the want of motor power not only come and go together, but they are confined to the same part of the body, thus apparently showing that they are inseparably interlinked. In like manner, anæsthetics, when they deprive us of sentiency, deprive us of motor power. It is true that, under chloroform, as under paralysis, the heart continues to beat and the lungs to play, but that is probably because complete insentiency is longest of reaching these, the last citadels of life. The influence of the chloroform extends to function after function—when the eye is insentient, the surgeon can begin to operate; and it seems that if the anæsthetic be continued till insentiency reaches the heart, the heart ceases to work just because it is insentient, and death is the result.

Physiologists, it must be told, have very loose ideas of what is meant by consciousness. They speak of having sensations and ideas without consciousness, forgetful that sensations and ideas are only forms of consciousness, and that they might as well speak of being conscious without being conscious. But they go even further than this, and declare that almost all the daily actions of life are performed automatically and apart from consciousness, and look with something like pity and contempt upon those who cannot understand this great truth. Thus let us hear Dr Maudsley, whose "Physiology and Pathology of the Human Mind" is undoubtedly a very able book. "There would seem," he says, "a positive inability in certain minds to conceive

mental action of any kind taking place with different degrees of consciousness, or of no consciousness at all: and this constitutes the great difficulty in the endeavour to set forth in their natural order the phenomena of sensation and sensori-motor action, and to appraise their real nature. Now it admits of no question whatever, that sensations and their respondent movements, which excite consciousness when first experienced, gradually become completely organised in the appropriate nerve centres, and thus take place without consciousness." * Here is a rare phenomenon—a sensation without consciousness—which is much the same as a man without humanity, inasmuch as sensation is consciousness specialised in the senses. But there may be ideas, it would appear, as well as sensations, of this peculiar type. Let us hear Dr Maudsley again.

"Very few, in fact, of the familiar acts of a day call the will into action; when not sensori-motor, they are mostly prompted by ideas. But the point on which I would lay stress here is, that such idiomotor movements may take place, not only without any intervention of the will, but also without consciousness; they are automatically accomplished, like the actions of the sleep-walker, in obedience to an idea or a series of ideas, of which there is no active consciousness. It may seem paradoxical to assert, not merely that ideas may exist in the mind without any consciousness of them, which every one admits in their dormant, latent, or statical condition they may, but that they may be quickened into action and instigate movements without being themselves attended to. But so it unquestionably is!" † "How many of the daily actions of life are we never conscious of, unless we set ourselves deliberately to reflect! It is most certain that there may be a reaction outwards of an ideational nerve cell independently of volition, and even of consciousness." ‡

* Maudsley's Physiology and Pathology of the Human Mind, p. 112.
† Ibid. p. 130. ‡ Ibid. p. 126.

Now it is most true, as has been shown, that we have ideas without being conscious of them, for ideas are never the objects of consciousness—they are the consciousness themselves. The old false philosophy has helped to lead Dr Maudsley and other eminent physiologists astray. Dimly discerning the fact that we are not conscious of ideas, but confused by ancient dogmas, they have fancied mental states into which consciousness does not enter as the constituent element. It is impossible. Brain action there may be without consciousness, but mental action without consciousness is a contradiction in terms. It is curious to find a man like Dr Maudsley asserting again and again that all the ordinary actions of life are performed unconsciously—that we walk, talk, eat, drink, all unconsciously. If this be so, it is plain that our consciousness is a superfluity, and that we might have got on as well, if not better, without it. Indeed, Dr Maudsley honestly asserts that in some respects we would have been better without it, as it is sometimes a hindrance rather than a help. "The interference of consciousness," he says, with matchless naïveté, "is often an actual hindrance to the association of ideas, as it notably is to the performance of movements that have attained the complete ease of an automatic execution." *

Till physiologists acquire more precise notions of consciousness, they will never be able to push with advantage their physiological discoveries into the psychological field. It is evident that Dr Maudsley confounds consciousness with attention; and he has no idea that consciousness and mental modification are identical. The cognate doctrines of latent mental modifications and latent cerebral action I shall examine afterwards; but in the paragraphs I have quoted it is not to these, but to active, operative sensations he refers, and he holds that these do not involve consciousness. Consciousness, he holds, is the exception, and not the rule. He who believes

* Physiology and Pathology, p. 138.

that we are unconscious of the ordinary routine acts of the day, can hardly be expected to believe that we are conscious of every varying degree of light that streams into our eyes, and of every breath of air that passes into our lungs. Yet so it certainly is; for our senses are more sensitive than the finest thermometer. The truth is, we are sensitive all over—out, in, everywhere, in all things—and sentiency is consciousness. Who would believe we are unceasingly conscious of every tooth in our head? But we are so. Let but one tooth be removed—yea, let but a small piece of the crust separate from a tooth—and we feel the difference for days. The old composite sensation has been destroyed—a new one has been formed; and we are rendered for the time being somewhat uncomfortable by it.

But we should not be surprised that physiologists have somewhat loose ideas of consciousness, for the same may be said of too many psychologists.

Even our most thoroughbred metaphysicians have not fully realised the truth involved in their own teaching, that without consciousness there can be no mind. To say that consciousness has been suspended, is to say that mind has been suspended. But many psychologists have held that during deep sleep consciousness is gone; and Sir William Hamilton submitted himself to some night-waking experiments to prove that it was not so. No such experiments were needed. If a man can be awakened from the deepest sleep by a cannon shot off at his ear, he is plainly not unconscious. If he had been unconscious he would not have heard it. For myself, I decline to believe there is perfect unconsciousness even in catalepsy or epilepsy, though the organs and the brain are out of gear for the time, and there is such forgetfulness as there is in somnambulism, or the mesmeric state.

Three sets of facts have been quoted in support of the position that reflex action is independent of sensation.

1. Cases are quoted in which a paralysed leg was convulsively withdrawn when the sole of the foot was tickled, even when the tickling was unfelt. It is not alleged that this always happens, and it will even be granted that the usual phenomena of paralysis support my theory, inasmuch as loss of sense and loss of motor power, as I have already remarked, generally go and come together. But cases have occurred, it is said, in which there was movement in response to a stimulant that was unfelt. In view of the very loose notions of consciousness held by physiologists I am inclined to doubt this. Is it not possible the paralysis was not complete? Is it not possible the tickling was felt, though very faintly felt?* It must be remembered that tickling is most powerful just on the line between consciousness and unconsciousness. A feather softly drawn over the sole of the foot, a fly, or a flea, if you prefer it, gently tripping over the same space, are just the very things to make the leg be half convulsively withdrawn.

Dr Carpenter notes, "that a slight irritation applied to the peripheral extremities of the afferent nerves is a more powerful exciter of reflex action than a much stronger impression which occasions acute pain when applied to their trunks;" and then remarks, "This fact is important, not only as showing the comparatively powerful effect of impressions upon the cutaneous surface, but also as proving how little relation the amount of reflex action has to the intensity of sensation." † This is quite certain. The acutest sensations do not necessarily produce the most violent reflex action. But it does not prove that sensation is not necessary to reflex movements.

May some of the cases referred to not be accounted for by emotional imagination, acting directly upon the motor

* In most of the cases quoted by Dr Carpenter, it seems acknowledged that the insensibility was not complete.

† Physiology, sect. 489.

nerves? I have already quoted instances of the power of emotion on the motor nerves; and it is well known that a person who is "tickly" shrinks, and even screams, on the bare sight of one approaching to tickle him. But even should none of these explanations be accepted, the few cases quoted are undoubtedly exceptional, and a few exceptional cases should not outweigh all the facts of the other side.

A dead rabbit may be stimulated by electricity into motion and apparent life for a few instants, but that is not considered evidence that reflex action is electrical. The pupil of an eye, after it has been removed from the head, will contract and dilate, not only under the influence of light, but of heat; and that not from reflex action, as it will do so after all the nerves upon which reflex action depends have been removed; but that is not considered proof that there is no such thing as reflex action at all. Inexplicable cases must not be held as deciding important controversies.*

2. The brainless fowl, the decapitated frog, which live and move, and otherwise seem to behave themselves discreetly, are held to be insentient automatons. All that they do, it is maintained, they do by pure reflex action, unimpelled by sensation, for they see nothing, hear nothing, feel nothing, and are really as devoid of sentiency as an automaton constructed of leather and wood. I have already considered such cases, and have ventured to state my conviction, that a pigeon without its cerebrum, that a frog without its head, is still sentient, and even in some degree reminiscent. I am happy that in this matter, though the vast majority of physiologists are against me, I have some great names on my side, under the shadow of which I can take shelter.

* I have not considered purely convulsive movements, which are thought to be independent of sensation, though generally believed to result from some irritant. Their nature is so obscure that they cannot serve either side.

3. Mr Bain maintains there is "a class of movements and actions, anterior to, and independent of, the sensations of the senses." His chief proof of this is the early movements of infancy, which he regards as chiefly due to the spontaneous action of the nervous centres. It is the overflow of stored-up energy. It is the discharge of accumulated central vigour. I grant there is much truth in his beautiful descriptions of the bounding frolicsomeness of youth in all animals; but I think sensation lies at the root of these early impulses, and Mr Bain half unwittingly confesses it. Thus, speaking of the playfulness of the kitten, he attributes it to the "creature's own inward stimulus." Now I apprehend that a stimulus, to be a stimulus, must be felt. Speaking again of the young hound, he says, "a rush of activity courses through his members, *rendering him uneasy*, till the confined energy has found vent in a chase or a run." An uneasy feeling is surely a sensation. "Doubtless it may be said," he again remarks, "that an uneasy craving rises periodically in the muscular tissue, and is transmitted as a stimulus to the centres, awakening a nervous current of activity in return. Even if this were true, it would not materially alter the case we are labouring to establish, namely, a tendency in the moving system to go into action without any antecedent *sensation from without* or *emotion from within*, or *without any stimulus extraneous to the moving apparatus itself*." * This, I think, is probably the true account of the matter, but it leaves sensation in the moving apparatus as the stimulus of its motion, and is in favour of, rather than opposed to, the theory I have advocated.

Thus the facts, rightly read, do not disturb the theory that sentiency is the great driving power of the vital organism. The theory, in truth, amounts to little more than is involved in the usual division of the nerves into sensory and motor. If what I have said be not true, then the sensory nerves are

* Senses and Intellect, p. 78.

no longer sensory, at least, in so far as their connection with the motors are concerned. It may be difficult at first to believe that every reflex action has a sensation for its prompter; that our automatic movements are dependent upon mental-material laws; but when we reflect that we are suffused outwardly and inwardly with sentiency, and that every kind of sentiency, through its nerve connections, has its own peculiar motive power, we will understand the regularity and continuity of the organic movements depending on this primary force. In truth, the reflex nerve-organisation requires sensation to action. By the nerve arrangement, and according to the law of correlated forces, a sense-force is carried to the nerve centre, and is there transmuted into a motor-force; and if the one be wanting, so must the other.

The mind is thus the master of the body, originating and controlling its every movement; and it acts upon it in three different ways—through the will, the emotions, and the sensations. Each of these ordinarily keeps its own province, and is all but powerless beyond it. The will cannot do the work of the emotions, nor the emotions of the will, nor can sensation do the work of either. By an act of the will we can shut our eyes or open them; we can clench our fist or spread out our fingers, but we cannot by any effort of the will blush, or shed tears, or grow pale. On the other hand, grief will make the tears come into our eyes, and anger will drive the blood from our lips; but no emotion, however strong, will raise or depress a leg or an arm. In the same manner the reflex of sensation will keep our hearts unceasingly beating and our lungs unceasingly playing, but it will not impel our fingers to transcribe a copy or handle a tool.

It is evident, however, that these three mental agencies trench closely upon one another, and there are cases in which the one invades, or at least appears to invade, the sphere of the other. Some tragedians can summon up tears at their

pleasure, but it is probable this arises from their really feeling in some degree the passions they represent. In like manner there are persons who can go into hysterics when they choose, but they do so, not by voluntarily executing the convulsive movements, but by throwing themselves into the emotional state upon which they depend. It is certain that the feelings modify in a large measure the automatic movements, showing that these are, as I have argued, connected with mind. The action of the heart, of the lungs, of the bowels, of almost every organ, is affected by any strong passion. If they were altogether unconnected with mind, this would not be the case. In truth, the emotions seem, in most cases, to act rather by modifying automatic movements, than by originating any peculiar movements of their own. It is so in blushing, pallor, trembling. In like manner the will can, by training, extend its power not only within its own proper domain, but beyond it. Few people have much power over their toes, and yet there have been those who, with their toes alone, could play the violin, both wielding the bow and compressing the strings. Then almost all the automatic movements may be less or more controlled by the will, another proof of their partial dependence on the mind, or rather on that organism which consists of both body and mind. We can suppress, for a time at least, respiration ; we can promote or check defœcation. Dr Abercrombie mentions a man who had the power of suspending to such an extent every vital function, that even physicians could discover no signs of life. He appeared to be dead, and then, by an act of will, he could restore animation. Some Indian Fakeers, in like manner, can throw themselves into a state of torpor, like that of the hybernating bear, and allow themselves to be buried, and when they are dug up, after days of death-sleep, they come to life again. These cases show the strange influence of mind upon all the physical functions, and

prove that the will is the dominating force within us—the autocrat of the ego.

It is a favourite doctrine of physiologists that there are many actions which, though primarily voluntary, become secondarily automatic. Dr Maudsley reduces all the routine acts of life under this class. We walk on steadily while we are absorbed in thought: in such a case, there cannot, it is argued, be an act of will for every step which we take, for the entire occupation of the mind otherwise forbids such a supposition. In like manner, a lady will busily ply her knitting-needles, and at the same time be in deep reverie, or lost in the excitement of a novel. A practised performer will rattle off a brilliant piece of music, and be all the while chatting with his friends. These actions, it is said, though in the beginning voluntary, have become automatic. The pressure of the sole of the foot upon the ground in walking, and of the tips of the fingers on the knitting-needles or key-board in knitting and playing, acts as the stimulus to the reflex action of the nerves and spinal cord. Every single action excites its successor. "There can be little doubt," says Dr Carpenter, "that the habitual movements of locomotion, and others, which have become secondarily automatic, may be performed by man (under particular circumstances) through the agency of the spinal cord alone, under the guidance and direction of the sensory centres, or even without such guidance; the required condition being, that the influence of the cerebrum shall be entirely withdrawn. Thus numerous instances are on record, in which soldiers have continued to march in a sound sleep; and the author has been assured by an intelligent witness that he has seen a very accomplished pianist complete the performance of a piece of music in the same state."*

This is a doubtful doctrine. Such actions as those referred to can be much more satisfactorily accounted for by regarding

* Human Physiology.

them as the result of a continuous will—a will which, in a few rare cases, can be extended even into sleep, for in sleep we are undoubtedly capable of volition. The mind may be in fifty different moods at the same time—we may be willing, thinking, feeling, all at once; in truth, hundreds of sensations are unceasingly pouring in upon us through every pore of our body. It must be remembered, moreover, that what we do often we do easily and without effort. This is the result of the association of all the details in our mind; every act suggests the one that should follow. It is mental association rather than mere physical stimulus, though every step of the pedestrian may suggest the next. Dr Carpenter, in order to the easy performance of his automatic actions, bargains for the absence of all cerebral action; and Dr Maudsley, as we have seen, declares consciousness to be a hindrance, and not a help, in such cases. It is easy to see the substratum of truth which lies under these curious surface notions. When other thoughts intervene, and interfere with the associations upon which the performance, say of the piece of music, depends, hesitation and bungling are likely to be the result. When the mind takes its own swing, half-blindly following its associations, the work is best done, though done without effort, and with perhaps a minimum of consciousness. But that the will has not abdicated its office is apparent from the circumstance that it can arrest in an instant the foot of the pedestrian and the fingers of the pianist. The fact that any sudden thought will cause us to halt is a proof that the will still retains its control; the fact that a single false note will make the musician to wince is a proof that, though discussing some topic with his friend, he is yet sensitively alive to his musical performance. But it is said that some persons afflicted with the *petit mal* continue their work, their knitting, their sewing, or their weaving, after they have sunk into unconsciousness; and no consciousness, no will. This is partly

true; but in all such cases it will be found there is mental stupor rather than complete unconsciousness; and the person carries on, for a few instants, the act in which he was engaged when the stupor came on, but now blunderingly, just because the will has not altogether ceased, though it now operates blindly.

Mesmerism presents some curious phenomena, yet not altogether inexplicable. A mesmerised patient may be made to believe anything, do anything. His intellect and will appear to be completely subject to the intellect and will of the operator. We are not to believe, however, that the mesmerised person does not really will to do the things which he does; that the will of the operator, as is sometimes affirmed, takes the place of his will. The power of the operator rather results from his presenting motives to action (his commands are such), and reasons for belief (his assertions are such), which carry away the mind of the patient from its not being in a state to weigh motives and reasons against one another. In our normal waking states, our conduct and our faith are determined by the manifold knowledge we possess. When occasion requires, our past experiences rise up before us, and help to guide us. The mind is awake, collected, composed, reminiscent. But in mesmeric sleep the patient is mysteriously cut off from his past knowledge, and even in some measure, though not altogether, from his past habits and tendencies. He is put in a state of isolation. In that position the voice of the operator becomes to him at once a law and a creed. The operator commands him to do certain things; he does them; for the command is the strongest motive present to his mind. The operator makes certain absurd statements; he implicitly believes them, for the affirmation is the strongest reason for believing that he can in the circumstances possess. The operator puts him in a pugilistic attitude, and the quiet man instantly becomes combative, for the posture suggests the feeling. The operator changes his position, and puckers

his face into a smile, and the man begins to laugh and be jolly; for as inward gladness wreathes the face with smiles, so in the mesmeric state the wreathed smile, or a rough imitation of it, begets inward jollity. After all, these phenomena are not greatly different from these of ordinary sleep. In our dreams the most ridiculous circumstances happen, but they do not seem to us ridiculous. The most preposterous things are said by the visionary personages with whom we hold intercourse, but they all seem reasonable and right. We have no power of questioning—no tendency to scepticism. Implicit faith is characteristic of all dreamers, and that just because they are cut off from the means of correcting false impressions. The mind will always be led captive by the thoughts which for the time possess it, for they are the mind. Thus there have been cases in which dreams have been suggested by whispering into the ears of persons asleep, just as hallucinations are suggested by the operator to the persons in the mesmeric trance.

Those cases in which the patient appears to be completely subject to the will of the operator, though that will be unuttered, are much more perplexing. They can be explained by no psychological or physiological laws yet known. But ignorance is the parent of knowledge. If there are facts at variance with all former theories of mind, it is well we should know them, in order to be led to re-examine, and, if need be, extend the foundations upon which our science is built. These very facts, though they at present distress and stagger us, may be the few first streaks of light which precede the dawn of day.

# CHAPTER XII.

## *LATENT MODIFICATIONS AND UNCONSCIOUS CEREBRATION.*

Are there mental modifications beyond the reach of consciousness? Leibnitz, I believe, was the first to moot this question, and he answered it in the affirmative. The subject was afterwards keenly canvassed by his countrymen, who in general came to the conclusion that Leibnitz was right. The doctrine was little known in this country till it was introduced by Sir William Hamilton, who supported it with all the weight of his powerful logic, and consequently he made many converts. But Mr Mill has questioned the truth of the doctrine, and helped to stem, if not to turn the tide.

I have maintained that the mind is in no case conscious of its modifications, that the knower cannot be the object as well as the subject of knowledge. But I have proceeded upon the supposition that every mental modification was a modification of consciousness; that every thought, every feeling, everything mental, in short, involved consciousness—was consciousness; and therefore I am unable to understand latent or unconscious modifications of mind. Let us see the facts upon which the doctrine has been based.

In the first place, we are asked to consider the facts of memory. All that we remember is not constantly present in the mind, and yet the treasures of memory are justly regarded as forming part of the mind's furniture. The wealth of the mind is not to be measured by its present momentary know-

ledge, but by the whole amount of its intellectual acquirements. It is thus only that one mind possesses greater riches than another. But this will be made more apparent by regarding memory as Sir William Hamilton has regarded it, in its twofold aspect, as the faculty of retention, and as the faculty of reproduction. We have a power, we are told, not only of acquiring knowledge, but of retaining it when acquired, and in order to this, it is not necessary it should be kept constantly before the mind; it withdraws itself from consciousness, but remains in the mind, to be reproduced at some future time. It is impossible, we are told, to believe that the hoards of memory are altogether out of the mind in the interval between the times when they are allowed to slip out of consciousness and when they are again brought back to it. They rather seem to retire into a region of unconsciousness, and remain there till they are recalled from their obscurity by the faculty of reproduction. If they perished altogether they could not thus be recalled. If they do not perish, they must exist somewhere; and where can we conceive them to exist but in the mind? It is thus only they are amenable to the laws of association, and may be brought back when occasion requires.

But Sir William Hamilton's main argument is drawn from perception. The *minimum visibile*, it is argued, is the smallest extended surface which can be consciously seen. Accordingly, if we divide the *minimum* into two parts, neither of them will be seen. Yet each of them must produce some impression on our mind, else we could not be conscious of them in combination. Twice nothing is still nothing. In like manner there is a *minimum audibile*. We are not conscious of a less sound than that of which we possibly can be conscious; and yet the parts of which that sound is composed must each produce some impression on our mind, for the conscious impression is the result of the whole, and the whole is made up of the parts.

The same argument may be presented in a more concrete form. When we look at a green hill from a distance, we are unable to distinguish the myriad blades of grass which constitute its verdure, yet each of these blades must have produced some impression on the mind, for the whole consists of the parts. Take away each of the parts, and nothing remains. When we listen to the roaring of the wind in a forest, we do not hear the rustling of every leaf, and the straining of every branch, yet each of these individually must have affected us, for it is these which, in their united force, compose the howl of the hurricane.

Such are the arguments by which the famous Leibnitzian doctrine of latent modifications is maintained. Though at first sight they appear to have the force of a demonstration, there is reason to doubt if they are really sound. All such arguments, based upon the principle of constant division, may, as every arithmetician knows, be reduced to an absurdity, or employed to prove an absurdity. If there be a *minimum visibile* and a *minimum audibile*, there must also be a *minimum* mental modifier. The *minimum* mental modifier is the smallest object which can possibly affect or modify the mind; and, as the mind is finite, there must be such an object. If we divide this minimum object, each of its parts will produce no modification, for, by hypothesis, the whole was the *minimum* modifier; but if the parts produce no modification, the whole will produce none; for twice nothing is nothing.* And yet mental modifications exist.

* Mr Mill answers the argument, or, as he thinks it, the assumption of Hamilton, by arguing that a certain quantum of cause may be necessary for mental modification as well as for consciousness, "because the *minimum visibile* consists of parts, and because the *minimum visibile* produces an impression on our sense of sight, he [Hamilton] jumps to the conclusion that each one of the parts does so too. But it is a supposition consistent with what we know of nature that a certain *quantity* of the cause may be a necessary condition to the production of any of the effect" (Examination, p. 332).

The same argument may be put thus. There must be some object than which no smaller can affect the mind. If we divide this object, its parts will not, *ex hypothesi*, affect the mind; and yet they do affect the mind, for the whole is made up of the parts. In truth, we have, in such reasoning as this, only an example of the contradictions which confront us whenever we begin to debate of the finite and the infinite. By a similar process of argumentation, we might prove that it is impossible to see anything, hear anything, know anything. Every prospect at which we gaze may be infinitely subdivided, for there is no part, however small, which we cannot conceive as capable of subdivision; but each of these infinitesimal portions of space can produce no effect upon our finite minds, and if the parts produce no impression, the whole does not, for the whole is not more that the parts. The argument for latent modifications proceeds on the supposition that the two parts of the *minimum visibile*, though unseen separately, may be seen in conjunction; but how shall two *invisibilia* make one *visibile*, two *inaudibilia* make one *audibile*, two nothings make one something? Whichever way we turn, we land ourselves in contradiction. The simple solution of the mystery is, that the mind ceases to be impressed at the point at which it ceases to be conscious, as a mental impression is nothing apart from consciousness; but that of consciousness there are different degrees descending down to zero.

The argument drawn from memory is still less conclusive. The mind may be so constituted that it cannot be acted upon without being conscious of that action, and yet be able to recall, though it does not constantly retain, recollections of the past. Memory is one of the simple, peculiar faculties of mind. It is an ultimate fact, incapable of explanation, and unlike all other facts. Its peculiarity is that it deals with the absent and the past. But, still further, it must be remembered that the mind is in no case conscious of its own

activities or properties—it is not conscious of its faculties or their exercise, it is only conscious of the objects which its faculties present. If outside objects then are the only objects of which the mind is conscious, these can be said to be in the mind only so far as they are in the consciousness. Out of the consciousness, out of the mind. We must not, in a matter of this kind, allow ourselves to be beguiled by the old belief that ideas are something separate from the mind, and may be stored up in its inner chambers of imagery, to be brought forth in time of need. An idea is just a form of consciousness, and, accordingly, to say there is no consciousness, is to say there is no idea. The mind which is rich in intellectual wealth is not the mind which has countless recollections crowded in its lumber rooms, but which has the largest number of mental associations, by which every fact as it arises brings back its fellows.

There has lately been introduced into physiology a doctrine which may be regarded as the physical counterpart of the doctrine of "latent modifications." There is, we are informed, unconscious cerebration, that is, the brain, or that part of it which is called the cerebrum, is frequently engaged in working out mental results without the mind being conscious of it. This doctrine is supported by Carpenter, Maudsley, Bennet, Laycock, and other physiologists equally eminent.*

Now, there is nothing contradictory or incredible at first sight in the supposition that there may be cerebral processes of which the mind is not conscious; or, to put it otherwise, that there may be brain action which does not pass into consciousness. But I am not prepared absolutely to concede even this. I have already argued that the sentient mind is con-

* See Carpenter's "Human Physiology;" Maudsley's "Physiology and Pathology of the Mind;" Laycock's "Mind and Brain; or, The Correlations of Consciousness;" Bennet's "Text-Book of Physiology."

scious less or more of every bodily process—of the pump-like action of the heart—of the bellows-like play of the lungs —in short, of everything, and that our constant consciousness is the composite result of all this. If this be so, we must include the brain, and hold that the mind cannot be insentient of the processes of an organ with which it is so intimately and mysteriously allied. The brain, though apparently insensible of touch (a fact strange but intelligible), is not entirely insentient, or there could be no such things as headache, or feelings of stupor or brain-fatigue; and sentiency is consciousness. But what I have here touched upon falls far short of the doctrine of unconscious cerebration as now developed by the physiologists. In explaining that doctrine in all its breadth, I cannot do better than follow Dr Carpenter, as few men have a greater power of clear and simple statement.

This eminent physiologist maintains, that while the cerebrum is the organ of reason and memory, the sensory ganglia alone are the seat of consciousness. He calls our attention to the fact that, as we descend in the scale of creation, the cerebral hemispheres gradually diminish, and the ganglia proportionally increase, till, coming to the invertebrated series, we find that the whole cephalic mass consists of ganglia in immediate connection with the nerves of sense. These animals, though they have no cerebrum, have yet consciousness, and thus we are led by the evidence of comparative anatomy to regard this series of ganglionic centres as constituting the real sensorium. Dr Carpenter further maintains that all the changes which take place in the cerebral hemispheres of man, connected with reason and recollection, must be transmitted to the sensory ganglia, and excite it before consciousness arises. The whole brain, he argues, is subject to the laws of reflex action. A change in the cerebrum, just like a change in the retina, is transmitted to the sensorium, and gives rise to consciousness.

The consciousness in the one case is ideational, in the other sensational.

"Although it may be thought," says Dr Carpenter, "at first sight, a departure from the simplicity of nature to suppose that the cerebrum should require another organ to give us a consciousness of its operations, yet we have the knowledge that the eye does not give us visual consciousness, nor the ear auditory consciousness, unless they be connected with the sensory ganglia; and in the end (the author feels assured) it will be found much simpler to accept the doctrine of a common centre for sensation, and for what may be distinguished as mental consciousness, than to regard the two centres as distinct."

Having thus arrived at the conclusion that the organ of reason and memory is separate from the seat of consciousness, he proceeds to give evidence for his belief that the organ may be busy at work reviving faded recollections, solving intricate problems, carrying forward discoveries, while the mind is utterly unconscious of it all. The brain performs the drudgery of thinking, and the mind enjoys the result—reaping in fields where it had not sown.

This highly speculative opinion, as will be seen from this statement, is founded upon the doctrine that many actions in man and other animals are purely automatic, performed without the intervention of the will, and, in some cases, without the intervention of consciousness. Dr Carpenter holds there is reason to believe that many intellectual processes are performed in the same way, quite automatically, and without any other than a permissive will. We may reason, abstract, generalise, without willing to do so, and without being conscious that we are so employed. Our brain, in fact, propelled by the reflex laws, may be preparing processes of thought, which come into consciousness only when they reach the sensorium, as the photographic picture is developed only

when it is brought into contact with the developing fluid. Let us see what proof is given of a theory so staggering to ordinary belief.

First, it is said, that when reading to others a book in which we feel no great interest, we often proceed quite mechanically, reading correctly enough, yet all the while thinking of other matters. Erasmus tells us of a friend of his who, beginning to read aloud a MS. late in the evening, and when fatigued with travelling, was found after a little to be fast asleep, though still reading. Men who have acquired habits of composition, it is said, compose in the same way, scarcely knowing what they do, scarcely willing it. Coleridge composed some of his finest passages when asleep. Mozart composed all his noblest pieces instinctively, without any effort. Both these eminent authors were men of weak will; their conceptions flowed upon them spontaneously; they were propelled to think and feel as they did by the reflex laws, just as the bee is driven to construct its cell, and the bird to build its nest.

But still further, it is argued, that when we lay aside a subject as hopelessly entangled, it frequently happens, when we take it up again, we find it perfectly clear; which can be explained only by supposing that the brain during the interval had been occupied with it. A schoolboy goes to bed at night with his lessons imperfectly learned, he rises in the morning and can repeat them without fault. A judge retires to rest sorely perplexed about a case which he must decide on the following day, but when he awakes, his perplexities have vanished, and the path of righteousness is clear to him. The authoress of "Jane Eyre," after thinking deeply on some feelings which she knew not how to describe, from having never experienced them, went to sleep, and when she rose she was able to write as if by inspiration. The new vigour of mind acquired from repose, Dr Carpenter allows, may partly account for such phenomena. "But this," he proceeds to argue, "by no means

accounts for the entirely new development which the subject is found to have undergone when we return to it after a considerable interval—a development which cannot be rationally explained in any other mode than by attributing it to the intermediate activity of the cerebrum, which has in this instance automatically evolved the result without our consciousness."

"Strange as this phenomenon may at first sight appear," continues the eminent physiologist, in a half apologetic strain, "it is found, when carefully considered, to be in complete harmony with all that has been affirmed in the preceding paragraphs respecting the relation of the cerebrum to the sensorium, and the independent action of the former; and looking at all those automatic operations, by which results are evolved without intentional direction of the mind to them, in the light of reflex actions of the cerebrum, there is no more difficulty in comprehending that such reflex actions may proceed without our knowledge, so as to evolve intellectural products, when their results are transmitted to the sensorium, and are thus impressed on our consciousness, than there is in understanding that impressions may excite muscular movements through the reflex power of the spinal cord, without the necessary intervention of sensation. In both cases, the condition of this form of independent activity is that the receptivity of the sensorium shall be suspended *quoad* the changes in question, either by the severance of structural connection, or through its temporal engrossment by other objects."

Such is the doctrine of "unconscious cerebration," and such the facts and arguments upon which it is based. It comes to us recommended by many great names; but I think it is impossible to read Dr Carpenter's statement without feeling that his facts are not sufficient to bear the towering theory which has been reared upon them, and that his whole

reasoning is loose and unsatisfactory. Let us look first to his primary assumptions. He affirms that the sensorium alone is the seat of consciousness. I have already endeavoured to show that consciousness is not confined to the sensorium or the cerebrum, or any point; that it is diffused over the whole nervous system. He tells us that muscular movements may be excited by reflex action, but it does not at all follow from this that intellectual processes may be excited in the same way, and be carried on apart from the conscious mind. There is reason to believe that reflex action, as a general rule, has its root in sentiency: if there be such a thing in the cerebral processes, shall we believe sentiency is absent? But even if it were so, the grand difficulty remains, how can there be thought without thought, and mental processes performed apart from mind? Such a theory not only makes thought the growth of the brain, but supposes that consciousness is not necessary to it.

But we have still to deal with the special facts adduced by Dr Carpenter. We sometimes read, it is said, while we are thinking of other matters. It is undoubtedly true; but are we utterly unconscious that we are reading? Assuredly not; for the mind can be conscious of many things at once. Coleridge and Mozart were men of weak wills, and composed as if by instinct; but were they unconscious while they were composing?—though their wills were weak, did they not will at all to do as they did? Were they mere composing machines, as Dr Carpenter's theory supposes them to have been? It may be true that they composed without effort—that their finest thoughts arose spontaneously; but is not this easily accounted for by the well-known laws of mind without the aid of the reflex laws by which our material organism is in some respects governed? Are there not the laws of association, by which fact suggests fact—by which feeling follows feeling? Is it not the opinion of many that all our thoughts, and even our acts of will, are determined by

these laws, and thus that all our mental manifestations, unless in so far as they are affected by outward objects, are linked together as cause and effect? If it be so, we can easily understand how the noble conceptions of Coleridge and Mozart rose up within them without resorting to the reflex action of the brain. Their minds were tuned by nature to noble thoughts, and the laws of association educed them.

But great stress is evidently laid upon the circumstance that subjects abandoned as hopelessly dark are sometimes resumed after a time, and behold a great light has broken in upon them. The unconscious cerebrum is supposed, in such cases, to have done the work which the conscious mind had failed to do—just as the fairies were supposed to have set in order during the night the disordered household affairs of the careless housewives whom they happened to love. I think it is not necessary to take refuge in so strained and improbable an explanation, when a much more satisfactory and more natural one is at hand. The new vigour of the mind gathered from rest is in general quite sufficient to account for the phenomenon. When the mind is jaded and worn out with long-continued thought, we find it impossible to disentangle intricate subjects,—everything is confused, and becomes more so the more that we think of it. Intellectual effort is thus sometimes persevered in till the overtasked mind fairly succumbs—thought sinks into perfect chaos—and we are no more able to arrange our ideas than an idiot. But after rest the prostrate mind recovers its elasticity—its clearness—its self-command, and subjects which, on the preceding night, were no better than a mist, now stand out before it bright and well defined.

Many thoughtful men are fond of allowing the subjects of their thoughts to lie and slowly germinate in their minds. Some people describe it as allowing them to steep that everything may be drained out of them; but it is rather that they

may imbibe everything that has any affinity to them. That an idea should swell out into fuller and fairer proportions in such circumstances is very natural, and easily accounted for without unconscious cerebration. At a hundred odd times the mind reverts to its favourite topic. It is constantly being brought up in our trains of thought, and perhaps, after remaining before the consciousness only for an instant, disappears again; but in every such case it gains something. By the natural law of affinity it is gradually drawing kindred thoughts to itself, and thus the one thought becomes a cluster of thoughts. The one germinal idea becomes a thousand. This process may go on even in our sleep; for it is certain that day matters often occupy us during the night. This may partly be the reason why schoolboys are said to know their lessons better in the morning than they did over-night, though new freshness of mind must also be taken into account. The fact that we do not remember such thoughts occupying our sleeping hours is no proof that they did not exist. We forget nine-tenths of all our thoughts before they are a day old. Ask any man at four o'clock what he was thinking of at two o'clock, and unless it happened to be something peculiarly interesting, he will be unable to tell you. Ask your friend what have been his thoughts for the last fifteen minutes, and the chances are he will not be able to recall one in fifty of the hundreds of ideas which have flitted before him. If such be the transitory character of our waking thoughts, why should we expect it to be different with our sleeping ones?

But there is still another way in which we may account for obscure subjects becoming clear to us after an interval of rest, without resorting to unconscious cerebration. The secret of the whole matter may be, that when they recur, they recur, as it were, with their bright side toward us. Every subject has a bright and an obscure side—a side in the sun, and a side in the shade. So long as we look at it from a false stand-

point, we see nothing but shadows ; the moment we alter our position, everything is clear and sharply defined. Very frequently the proper comprehension of a subject depends upon the possession of a single idea. It is the clue which threads the labyrinth—it is the key which unlocks the mystery. Without it we are in darkness—with it we are in the midst of light. When laboriously thinking out a subject, the master-thought may suddenly start into existence, brought there by one of the manifold relations which link fact to fact, and immediately all difficulty is conquered, and the day is won. So it may happen when a subject which had formerly puzzled us is resumed : it may now present itself in a better phase for observation ; it may now be accompanied with the luminous idea which makes all things clear. The very circumstance of the mind having ceased for a season to think on the subject, allows time for the tracks in which it was formerly moving to be effaced, and now advancing in a new direction, it probably reaches to a higher eminence, from which it is able to take a wider survey of the spiritual landscape.

When the phenomena in question may thus be accounted for so easily and so satisfactorily, it were wrong to resort to the highly improbable hypothesis that intellectual processes may be carried on and matured apart from the intellect. The law of parsimony forbids us to do so.

I think it will be conceded that the theory of knowing which I have explained is more simple, more natural, and more in accordance with the general convictions of mankind, than those now taught in the schools of psychology. All primitive forms of speech express the truth ; and the introduction of philosophical words appear to have initiated philosophical errors. The word " idea " has much to answer for. There is a natural tendency to believe that every word must have a corresponding thing. It is difficult to speak and

reason about ideas, without believing that ideas are entities; and when once we believe that ideas are entities, nothing is more natural than that we should believe we are conscious of them.* When ideas were demolished, idealism should have perished with them (and indeed did perish); but none of the great iconoclasts have seen the wide sweep of their own principles, and though they have proved that ideas are not entities; they have continued to argue about them as if they were; and, though they do not believe in ideas, they continue to teach idealism. Let us only believe there are no ideas, no sensations, and then we must believe there are no such things to be conscious of. The word "consciousness," like the word "idea," has a certain utility as applying to every mental state of which sensation, remembrance, feeling, are the specialised forms; but it has tended to separate the mind into two, of which the one takes cognisance of the other. We are said to be conscious of our sensations, of our feelings, of pleasure, of pain—all erroneous forms of speech leading inevitably to erroneous beliefs. The more primitive forms of speech bring us at once back to the truth: we see the chair, we hear the song, we smell the meadow hay.

Through the senses we get our knowledge, and by memory we recall it. Our intellectual states, therefore, are either sensations or recollections. There is no other. What we call ideas are simply recollections, but perhaps in that form which we call imaginations. To have ideas is, therefore, simply to be remembering or imagining; and the mind

* Dr Maudsley's account of the manufacture of ideas is very curious. "The formation of an idea," says he, "is an organic process that takes place by imperceptible degrees beyond the range of consciousness; the idea when formed exists in a latent, quiescent, or dormant state" (p. 139). Again: "The cells of the cerebral ganglia do in reality *idealise* the sensory perceptions, grasping that which is essential in them, and, suppressing or rejecting the unessential, they mould them by their plastic faculty into the organic unity of an idea, in accordance with fundamental laws" (p. 127).

remembering something, imagining something, needs not be conscious of the operation, but in the operation is conscious of the thing. Here we have a very simple philosophy expressed by a very simple vocabulary, in which sensation and memory would be the principal words.

I know it will be hard, after three thousand years, to bring psychologists to believe that the mind can never be conscious of its own states—that self-consciousness is an impossibility. Yet the doctrine is not only true, but most natural, and it has its striking analogies. No man has seen his own face at any time, neither can he see it. The all-seeing eye can never behold itself. Instead of rebelling against this potent fact, we see that so it necessarily must be. The seer must be self-unseen; even so the knower must be self-unknown. Let us look at the mind, either as active or passive, and we shall see that self-consciousness is inconceivable. If the mind in consciousness be simply impressed, there must be something to impress it, and it is of that thing it is conscious. If the mind be active, going as it were out of itself, there must be something to see, hear, taste, smell, touch, and it is of that thing it is conscious. Every effect must have a cause, and the one cannot be identical with the other. Every subject must have an object, and the two cannot be one.

But though the theory I have explained maintains a duality, it has a certain unifying effect. It brings subject and object into the closest possible contact with one another, if it does not completely fuse them into one. A brother and a sister meet after a long separation, and gaze at one another. The sister is the main consciousness of the brother—the brother is the main consciousness of the sister. The mind of either is for the time being almost completely filled with the other. A lady sits poring over a new novel, completely lost to herself and surrounding circumstances, absorbed in the story, strongly excited by the woes of the hero and the

heroine. The author has actually taken possession of her mind, and his thoughts become her thoughts. But in truth in every case outside impressions take possession of our mind, and our whole consciousness is ever of something different from self. But while this consciousness is ever shifting, ever changeful, flashing into brightness, dimming into darkness, like the northern lights, the conscious mind ever preserves its individuality, I may almost say its identity. It can never be transfused into the outside object. It is still the knower, the feeler, though the things known and felt fill up its whole conscious existence. It is this individual permanence in the midst of fluctuation that constitutes what is usually called personal identity. Strictly speaking, there is no such thing. In mind, as much as in body, the full-grown man is totally different from the puling baby out of which he has been developed. The man of to-day is not entirely identical with the man of yesterday; but there is a continuity, both in mind and body, between the infant and the youth into whom it has grown, and the old man into whom it has finally declined. Through all the changing scenes of life constituting the changing modes of consciousness, there has been the ever-abiding conscious self; though ever filled with the variable and shifting, never transformed into it; though ever the subject of external impressions, ever in conscious contrast to them; ever personal, continuous, the same.

Professor Ferrier, in his "Institutes of Metaphysics," lays down as the primary law or condition of all knowledge, that along with whatever any intelligence knows, it must, as the ground or condition of its knowledge, have some cognisance of itself. I grant the dualism he insists on. I grant there must be a knower as well as a thing known; but I cannot admit that the knower in any sense knows itself in knowing non-self. It is enough that it knows—that constitutes it the

conscious ego. I gladly welcome his proposition that the mind *per se* is of necessity absolutely unknowable. But when he explains that it can know itself only in some particular state, he renders his proposition not only nugatory, but self-contradictory. For while it is most certain that the mind cannot know itself in no state, it is equally certain that if it knows itself in some state, it knows itself. In any state the mind is still the mind, and only the mind, and therefore the mind *per se*.

With Fichte and Hamilton, as well as with Ferrier, I start with a dualism. With Fichte, I believe there is an ego and a thing. But Fichte held that the ego was conscious only of itself, and evolved the thing out of itself by its own laws of thought. On the contrary, I hold that the ego is conscious only of the thing, but that in its first consciousness of the thing there is involved its own existence. With Hamilton, I believe both in a perceiver and a thing perceived. But Hamilton held that we are conscious only of our perceptions, and that in the perception there is involved a knowledge of the thing perceived. I, on the other hand, maintain that we are conscious only of the thing perceived, but that in the perception of it there is involved the conscious existence of the perceiver.

I have waived all discussion of what the mind is. Cabanis believed that the brain secreted thought, as the liver secretes bile. Modern physiologists seem gravitating toward the opinion that thought is the result of blood and brains. Such conclusions are unwarranted by facts, as we have no knowledge of anything beyond what Dr Laycock has called the correlations of consciousness. That there are such correlations every one admits; beyond these correlations no one can penetrate. We can say that blood and brains are necessary to consciousness, but here science veils her face in presence of the great mystery, and confesses her ignorance. We know the

mind only as the knower, but as such it must remain eternally in contradistinction to the known.

The reciprocal action and reaction of mental and corporeal states show at least how closely they are allied. We have seen how sentiency exists in every part of the sensitive frame, and how this diffused consciousness is unified in the mind. We have seen how mysterious forces go forth from the brain to act upon every part of the body, and to keep its marvellous machinery in motion. But this is not all. It is now universally acknowledged that intellectual power depends upon the size, quality, and convolutions of the brain; and it is further known how small a cerebral change may convert genius into madness. A scrofulous habit exhibits itself in one member of a family in brilliant ability, in another in outrageous insanity. A touch of dyspepsia will make a man, at other times amiable, intolerably ill-tempered. A grain or two of opium will transport the victim of melancholy into a paradise of delights. The juice of the grape contains in itself the quintessence of every mental state, from boisterous conviviality to maudlin drunkenness. A blow upon the head may blot out the memory of years. When the brain is fevered, the mind becomes delirious; when its tissues soften, dotage ensues. Thus close is the tie which binds spirit and matter together in one organism.*

It may be said that my theory makes a mental philosophy impossible. In one sense it does, as the mind can never be conscious of itself, as the knower can never be directly known. All thinkers have confessed the difficulty of introspection. Comte has stated it with the greatest point. "In order to observe," says he, "your intellect must pause from activity;

* I think it better to say nothing at present regarding the supposed discoveries of Dr Ferrier as to the action of the brain in its different sections under stimuli. They are most important and interesting if true, but his facts require further sifting.

yet it is this very activity which you want to observe. If you cannot effect the pause, you cannot observe; if you do effect it, there is nothing to observe." * To a disciple of the introspective school, who thinks of the mind turning its eye in upon itself, the argument presents a puzzling dilemma. But, at the same time, if it be true that the mind is in all cases conscious of itself in all its varying moods—conscious of itself when active, conscious of itself when observant—we must know the mind above all other things. It is upon it, and upon it alone, the whole light of consciousness shines. But notwithstanding these idealistic beliefs, every man feels that he does not thus clearly know his own mind, and the more he attempts to look inwards the less he sees. He finds that in trying to look at the mind he is attempting an impossibility, as if the eye were to endeavour to look at itself.

In one sense, then, a mental philosophy is impossible, as we never can have a direct immediate knowledge of the mind. But we know what we know, and can thus infer the mind's capabilities of knowing. We know in some measure how we know, and thus we reach the laws which regulate the mind in knowing. Through our senses we acquire a knowledge of external things; we call this sensation; we recall it after it has been long out of our consciousness, and this we call memory. We observe that past facts recur to the memory according to certain laws; we call these the laws of association, and thus we build up our mental philosophy. Physiology has of late come to our help, and it is certain that in the future she will help us still more. But what is the state of the case at this moment? Instead of such a philosophy as we might expect if the mind had been the immediate object of the mind's knowledge, we have a philosophy of which hardly ten facts are admitted, and of which the greater part is so apparently nonsensical, so nihilistic, so contradictory of

* Miss Martineau's translation, vol. i. p. 11.

common belief, that mankind in general make it the subject of their laughter and their jests. It is plain that a philosophy of mind is still a thing of the future; but, within certain limits, such a philosophy is possible. If the doctrines here maintained, in regard to the true object of knowledge, should be admitted, they may serve as rough foundation-stones for a portion of the new structure. And if it should further prove true that sentiency exists wherever there is a sensory nerve, and that this sentiency is necessary to all reflex action in our material mentalised frame, the fact may be almost as fruitful of consequences in physiology as the doctrine of the knower and the known in psychology, and the relation between the two sister sciences made closer than before. In any case, it will be something if I have brought science into harmony with the universal and necessary convictions of mankind, and shown, at the same time, that in every act of knowledge there is the contrast and the relation which lies at the root of all RELIGION and all SCIENCE, the KNOWER and the KNOWN—never intermingling, but existing everlastingly face to face.

THE END.

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