immense aggregations of leucocytes inside some of the veins, and also hæmorrhages. The existence of signs of irritation in all these organs, and the direct connection of these signs with the bloodvessels, is exceedingly suggestive of the existence of some irritant in the blood which has acted on the vessels primarily.

In the cases of tetanus subjected to examination, there were in the nervous system appearances which, though by no means identical with those in hydrophobia, are still to my mind strongly suggestive of irritation, and of irritation acting out from the blood-vessels. . . .

In regard to the symptoms in these two diseases, few will deny that in hydrophobia they are related to some poison circulating in the blood, and attacking specially the central nervous system. In the case of tetanus this view, though supported by very high authorities, is not generally received. Looking, however, to the fact, that on the one hand the symptoms in both these diseases have a closely analogous anatomical distribution, and that on the other hand the lesions though different in kind are so similar in distribution, it seems to me very natural to suppose that in tetanus also there may be some poison circulating in the blood and causing disturbance. In this connection it may be said that the high temperatures observed in tetanus, sometimes reaching a startling elevation, are more suggestive of a general disease, these temperatures not bearing any constant relation to the exaggerated muscular contraction.

## PART II.-REVIEWS.

The Physiology of Mind. Being the first part of a Third Edition, revised, enlarged and in great part rewritten, of "The Physiology and Pathology of Mind." By HENRY MAUDS-LEY, M.D., F.R.C.P.

In an age of new discoveries it is very hard to avoid narrowness. This may seem a paradox, but it is illustrated every day. In our own time, all manner of new knowledge has been acquired about all manner of things. Electricity, language, life, chemistry, geology, and a dozen other subjects, as we know them now, were half-unknown to our grandfathers. This is an immense gain, and the ultimate results of it, even if we could suppose it would cease presently, no man can foresee. But it brings with it a loss—or at the least a great danger. We have made the world so wide that we can only see it by little parts at a time. To comprehend the whole of knowledge, at least in outline and approximately, was possible to the great scholars not so long ago. For us it has become an absurdity. Therefore we

"specialize." Like mechanics in a vast factory, we sit each at our own little machine and try to make perfect some one small portion of the great work. What the whole fabric may be like when all the contributions are combined and harmonized, we cannot easily know.

The application of the parable is not difficult; but before we go on to discuss Dr. Maudsley's book in a more special way, we propose to clear the ground by defining as briefly as possible what we take to be meant by such a 'view of the whole,' as that to which we allude. The solution of the problem lies in the meanings we attach to those common but often misused words, Philosophy and Science.

Each Science has its own sphere of knowledge. Sciences, in fact, as contrasted with Philosophy, would be defined as the investigation of limited groups of phenomena. Each Science is limited by all the others—except in so far as there are awkward cross-divisions, due to a former less developed period. Philosophy, in the proper use of the word, is the knowledge of things from the point of view of the whole. It is therefore—or it hopes to be—the "Science of Sciences," the endeavour to unify and combine them, with whatever success, in one scheme, wherein each special science shall have its proper place in the hierarchy of know-ledge, and shall be seen to be, as it must be, correlative to every other and only intelligible truly when read in the light of the universal knowledge towards which they all converge. "Philosophy," then, in this sense of the word, has become less and less possible with the growth of science.

"One thing at a time," is the motto of Science. "Divide et impera." And its method, therefore is by preference analytical. Given a complex problem, it seeks to reduce it to a number of simpler ones, and sets a different Science to work on each, as the manufacturer sets a dozen trades to work on a needle. "To explain a watch," it seems to say, "you would take it to pieces; therefore, to explain Man you dissect him—you take him down to the atoms. Thus you get at the bottom simple and easy laws of mere motion—by-and-by of chemical affinity—then of life." And so they must in consistency go on to say also, as Bacon said, that they expect some day to be able by these simple laws to build up a man out of the atoms, as the Swiss builds up his watches.

And it is by reason of this same dissecting tendency also that Science is so prone to act as a solvent against all the great unities of life. Religion, morality, the Church, the XXV.

State, the family, law, art, and the rest are strangely apt to be explained away. What is the family but a convention long ago assumed as a decent cloak for a natural appetite? What is religion but a survival of the childish terrors of savages long dead, fomented and improved upon by the cunning of generations of priests, who live by it? And after the same manner the rest also are disintegrated and analysed out of existence; and we are given to understand that when Science has had time to develop a little further, Poetry, like the rest, will follow to the Limbo of illusions, and bare facts will stretch in endless series before the vision of the enlightened Man; "which" (if the scientist will pardon us for saying so) "is absurd."

It is against this excess of analysis that the "Philosophers" protest; and it is from this point of view that we now wish to consider Dr. Maudsley's book. For a book of this kind—a book of cardinal importance which sums up the past achievement of a Science and claims attention as a master-work—is especially fitted to be the text of a criticism of this wide scope. If, then, what we have to say appears in a measure antagonistic to the theories there put forth, we wish it to be plainly understood, once for all, that we choose this way of saying it, not in any sort of disrespect to the writer, but precisely because, on the contrary, we recognise in him the most powerful exponent of a doctrine which we hold to be mistaken.

Let us, therefore, hasten at once to congratulate Dr. Maudsley on his idea of rewriting and republishing in two distinct parts the admirable book on the "Physiology and Pathology of Mind," which he first put forth in 1867. When we try to realise the vast influence the book has exercised on all recent psychological study here and elsewhere, the time it has been in the hands of the public seems very short. But as it was entirely out of print, and as it is now undoubtedly a necessary part of every philosophical student's library, to whatever school or nation he may belong, it would have been unpardonable had the author allowed either the press of professional work, or such a "lack of enthusiasm" as he explains in the Preface, to hinder this reissue.

The new edition, as was to be expected, improves in many ways upon the old. The expansion of the "Physiology of Mind," from a kind of essay introductory to the "Pathology," into a treatise sufficiently complete to be a separate book, is a great gain. And in minor matters, also, the

revision has improved many things, both by its omissions and by its additions.

The physical side of mental problems, especially from the Pathological point of view, is a field which Dr. Maudsley has made peculiarly his own by that clear and popular method of treatment, that wealth of knowledge and illustration, and that keen polemic against all opponents, medical, metaphysical, or legal, which is well known, especially to readers of this Journal. He never leaves one in any doubt of his meaning. His trenchant and even violent phrases fix themselves on the dullest mind—until even that most unphilosophic animal, "the British Philistine," has come to think about Dr. Maudsley and to take account of what he says.

In the preface he tells us that much has been cut out which was once written "in the vehemence of youthful enthusiasm," but seemed objectionable now. If we may make a suggestion, which will occur to most impartial critics of the book, we would say that such omissions and modifications might have been carried further with advantage. The trenchant phrase does sometimes verge on declamatory violence. The keen critic sometimes slides into a rather indiscriminate belabouring of his opponents and their tenetsnever discourteous, indeed, but still offending somewhat against the ideal which he himself describes as "the level of a more sober style." And this defect—if we should so call a quality which in reality serves to make the book only the more lively and entertaining—is especially connected with the point which we have already stated as the basis of our criticism of the work as a whole. Dr. Maudsley tends to lose his patience whenever he comes across what he calls "Metaphysics." One might compile quite a vocabulary of abuse from the hard things he says of it.

"Philosophy has been not unlike one of those barren women who would fain have the rumbling of wind to be the motion of offspring." It "engenders moral errors which vitiate man's whole habit of thought." It is the "vainest word juggling with which a tenacious perseverance has ever vexed a long-suffering world." "Every philosopher and every lunatic has his own rules." Or, in a more concentrated vein, "Metaphysics" is described as an "ecstacy of conceit," "an attack of measles," and a "manie de grandeur."

And why all this? Because it believes in a Self which is

more than the product and function of the mechanical and chemical forces of the organism—because it asserts a free-will which is more than a conscious automaton—because it claims for man "not only a rank infinitely higher than, and a destiny wholly different from, that of anything else in the universe, but to be the end and purpose of creation." \*

Now we venture to deprecate all this strong language. Dr. Maudsley, no doubt, believes that these "Metaphysical" opinions are incorrect; but he must also be aware that they are still the cherished beliefs of most of his readers, and that very many of the foremost minds of this and every other time hold them to be most certain and most wholesome truths, without which the intellectual world would be inexplicable, and the moral world would collapse. They may be wrong, of course; but he should handle them very gently. We are tempted to accuse a writer of either unwisdom or a little unfairness, when he writes thus:—

"One of the two facts which come out very distinctly from a candid observation of the state of thought at the present day, is the little favour in which metaphysics is held and the general conviction that there is no profit in it, the consequence of which firmly-fixed belief is, that it is cultivated as a science only by those whose particular business it is to do so, who are engaged not in action, wherein the true balance of life is maintained, but in speculating in professional chairs, or in other positions where there are little occasion for hard observation and much leisure for introspective contemplation; or if by any others, by the ambitious youth who goes through an attack of metaphysics as a child goes through an attack of measles, getting haply an immunity from a similar affection for the rest of his life; or lastly, by philosophers who, never having been trained in the method and work of a scientific study of Nature, have not submitted their understandings to facts, but live in a more or less ideal world of thought."

This is infinitely amusing, but it is scarcely convincing, unless to those who are convinced already. If there be any philosophy that is true, however scientific or inductive it may turn out to be, the men who cultivate and advance it will scarcely be the busiest men in London. "The true balance of life" is hard to find anywhere, but it is certainly not to be sought for in Lombard Street or even at Westminster. It is a true saying that "the best work of the world is often done

<sup>&</sup>quot; Physiology of Mind," ch. vii., p. 458. † " Phys. of Mind," ch. i., p. 13.

by those who live in solitude." Action is an excellent thing, but it has always tended, and now tends more than ever, to prevent men from calm thinking and "sweet reasonableness." To say, then, that merchants, and lawyers, and doctors, and scientific discoverers care little for speculation is merely to say that they are engrossed in their own work, even as the occupants of professorial chairs are doubtless absorbed in theirs. The world has always neglected and often stoned the prophets and teachers who brought it a message hard to be understood. If Science, on the contrary, is as popular now, as it, too, was unpopular once, it is in part at least because it pays. Electric light, and the telegraph, and better hygiene are benefits not likely to be ignored. "Philosophy" has not, and by its very nature cannot have, any such results. It aims only at gaining a profound knowledge of which few men have ever felt the need; but which is yet "the master light of all our seeing." Therefore it is unpopular, as it has been from the days when Socrates was condemned to death, to the days when Spinoza died in a garret.

But why is Dr. Maudsley so hard upon Metaphysics? Apparently because he has constructed a theory of his own about the progress or "evolution" of knowledge, which appears to correspond, in the main, to Comte's "Law of the Three Stages." First of all, say the Positivists, the world was in the theological stage. Then came the metaphysical. Now, in the fulness of time, we have Comte and Positivism. Dr. Maudsley does not use these terms much, but he sketches the history of philosophy in the same spirit. "Thales of Miletus is said to have been the first who laid aside the priestly character, and stood forth as a pure philosopher." He and his first followers had an instinctive aspiration after positivism, but they soon gave up—

"This slow and tedious method for the easier and quicker method of deduction from consciousness; abstractions were made from the concrete by the active mind; and the abstractions, being then projected out of the mind into objective realities, were looked upon and applied as actual entities in nature." "Thus it was that man, forgetful of his early humility, rose by degrees to the Creation of a God after his own image, and to the construction of the laws of an external world after the pattern of his own thoughts." "Natural phenomena were explained by sympathies, loves, discords, hates. As the child attributes life to the dead objects around it, speaking to them and thinking to receive answers from them, so mankind, in the

childhood of thought, assigned its subjective feelings to objective nature, entirely subordinating the physical to the metaphysical." "The assertion that man was the measure of the universe was the definite expression of this metaphysical stage of human development. But it was a state that must plainly be fruitless of real knowledge. There could be no general agreement among men when each one looked into his own mind, and, arbitrarily framing the principles of external nature out of what he thought he found there, evoked the laws of the world out of the depths of his own consciousness. Disputes must continually arise about words, when words have not definite meanings, and the unavoidable issue must be Sophistry and Pyrrhonism. This has been so. The history of the human mind shows that systems of Scepticism have alternated regularly with systems of Philosophy. Convinced of the vanity of its ambitious attempts, Socrates endeavoured to bring philosophy down from the clouds, introduced it into the cities, and applied it to the conduct of human life; while Plato and Aristotle, opposite as were their professed methods, were both alive to the vagueness of the common disputations, and both laboured hard to fix definitely the meanings of words." "How should this onesided method, which entirely ignored the examination of nature, do more than repeat the same thing over and over again in words which, though they might be different, were, yet, not less indefinite? The results have answered to the absurdity of the method; for after being in fashion for more than two thousand years, nothing has been established by it; 'not only what was asserted once is asserted still, but what was a question once, is a question still, and instead of being resolved by discussion, is only fixed and fed.""

We have quoted this at some length, because it is a full and fair specimen of the way in which Dr. Maudsley thinks of "Philosophy," and "Metaphysics," and the kind of views he holds about it. Whether he would say, "that this is one of the passages once thrown off in youthful vehemence," we do not know. But unless it is so, it is hard to explain how so able and so logical a writer could so strangely travesty the history of philosophy in Greece and elsewhere. This is not a place to draw a rival sketch, though it would not be hard to make one which would contrast oddly with that just quoted. Let us take up only the salient points. That the Greeks had crude and vague notions about philosophy is true, for they were the first philosophers. They began by seeking some unity that should underlie and explain the perplexing variety of phenomena. Thales guessed it to be water; Pythagoras number (or rather measure, proportion, harmony), Anaxagoras mind. These were not "abstractions

# "Phys. of Mind," Ch. i., pp. 3-4.

projected out of the mind"—they were only hasty hypotheses, such as rash scientific inquirers make every day. "Sympathies and discords" were invoked by a few, but they were, like Empedocles and Parmenides, for the most part poets, and adopted an intentionally imaginative language, hardly meant to be pressed literally. Whereas there were many Atomists, on the other hand, who were as eager for facts and matter as any one could wish, although they, too, were guilty of hasty generalization, and had not the patience to wait for verifications of their sweeping theories—an error, however, which is to be found in all ages and all schools.

It was only afterwards, when the Sophists appeared, and with them a wholly new age and line of thought, that the maxim, "Man is the measure of the universe" arose—meaning to be not an "expression of this metaphysical stage," but rather the reverse. For it was a denial of all systematic or fixed truth, intellectual and moral. It asserted, as against such philosophy as that which Socrates, and Plato, and Aristotle founded, that nothing is true or right, except only "that which appears to me to be so at the time." Surely this is the flat denial of every sort of metaphysics. Again, to class Plato\* with those who made man the measure of the universe, as if he had any sympathy with that view, would be a huge misconception. He did talk of " Ideas" as if they constituted some strange world, apart from which our common world drew all its reality. But this was, for the most part, a poetic metaphor, such as the many others he used when his thoughts were not clear, as at that early stage of thinking they could hardly be. What he did assert, and what Aristotle and most deep thinkers since have equally asserted, is that when we talk of "things" or "phenomena" as if they were simply entities external to our minds, in the vulgar sense of the "external world," we talk superficially. He held that such appearances are not "the really existent" or "the true." They are only passing shadows, through which, if we read them rightly, we shall come to see the truth as it is. This may appear to some physiologists to be a mystical absurdity; but we will return to that question by-and-by.

Dr. Maudsley, in fact, is misled by a confusion, which Comte's terminology perhaps suggested, between the "metaphysical stage," the "introspective method," and speculative philosophy in general. If one heard a student of philosophy

<sup>\* &</sup>quot;Phys. of Mind," Ch. i., p. 8.

say that Locke and Hamilton, and all our English and Scotch introspective school, with their "method of interrogating self-consciousness" to obtain answers to psychological questions, were following the same method which Plato tried, one would think he was joking. Yet, Dr. Maudsley says roundly -" It surely argues no little conceit in any one to believe that what Plato and Descartes have not done, he, following the same method, will do. Plato interrogated his own mind, and set forth its answers with a clearness, subtilty, and elegance of style that is unsurpassed and unsurpassable. . . . His system, then, may well remain as the adequate representation of what the metaphysical method can accomplish."\* This sounds oddly. The method of Plato, so far as he had any, was to seek to define the deeper meaning of the words and corresponding ideas, by which we regulate our life; and that by means of a sort of induction of many examples, and collation of different senses in which they were employed. Plato had, of course, many faults. He lived in a world of pregnant imagery and Utopian theories, which he never thinks of submitting to any tests in the way of verification. This, unfortunately, makes his particular statements rather suggestive than directly useful. He reasons subjectively rather than objectively—and to that extent the criticism is true. But so far from working by the "introspection of consciousness," Plato has not even a word for consciousness, or for introspection. He and Aristotle—whose system is very much more identical with Platonism than is often supposed had not by any means advanced far enough in power of abstraction to talk of consciousness, or of the self, or even of freewill. They observed, more or less systematically, the facts of our experience, mental and bodily; they strove hard to think out all that is implied in saying, for instance, that we know a thing or perceive a fact, or conceive an idea: and by such studies they were led to pregnant results, which modern thinkers, by the advance of philosophic power and distinctness, have been enabled to develop and systematize, but which are, undeniably, very different from the distinctive tenets of modern scientific or materialistic schools.

For it is not at all true to say that philosophy has made no progress. Discoveries of the scientific sort it obviously has not made, and never will make. Its move-

# " Phys. of Mind," Ch. i., pp. 14-15.

ment is from vague and half-conscious treatment of the great problems of life and knowledge to clearer and deeper views. It eliminates at every step some error or obscurity. It takes up into each new system all that was of permanent value in the old. Stages of analysis and definition, which cost the Greeks or others a generation of discussion, may seem, perhaps, to be lost; but in reality their results are stones in the basement of the modern building. It is true that there are men in every age who insist on "thrashing old straw," and vainly believe themselves to be overturning results which were, indeed, established long ago, if they could only understand them. Such, says one of the ablest of English metaphysicians, are the modern followers of Hume among ourselves.\* Whether this be so or not, it is at least desirable that they who theorize on such hard questions, should first be sure they have grasped the other point of view. Dr. Maudsley's comparison of Hamilton to Plato leads one to doubt if he has fully succeeded in doing so.

We insist on this difference with the author of the "Physiology of Mind," not, certainly, for the sake of criticizing, but because, as we have said, we feel the importance of the book. It is a work from which many have taken, and many more will take, their cue in such matters. It is a book unimpeachable on its own physiological ground. We deny, however, that its wholesale denunciation of what it nicknames "Metaphysics"—but what we should call Philosophy—is just, and we fear it is calculated to mislead. Englishmen are too little apt to look at what they deride as the a priori and ideal side of things. But there is such a side; and the recent wondrous growth of our scientific knowledge of facts makes it only the more needful to insist upon and develop our grasp of ideas. Let us explain what we mean.

People tell us that we must keep to "facts," and refer everything to that test. Induction and verification is their battle cry. Anything that goes beyond, and, above all, anything that seems a priori is a "hypothesis"—" a mere hypothesis"—or "an unwarrantable hypothesis," according to the violence of the discussion. We would ask, in all humility, "what then is a fact?" Waiving the question of the necessity of basing your logical methods on some metaphysical theory (which even Mill confessed, though he certainly failed to establish his own foundations), we wish to know

\* See Prof. Green's Introduction to "Hume's Treatise on Human Nature," Vol. i., pp.  $2\ \mathrm{sq.}$ 

what we have to rest on? Why is a "fact" better than a "hypothesis," or an "idea?" Hume, whom they all affect to follow, proved to his own satisfaction that there is hardly anything which is not a "fiction of the mind," and, then, as he said, and as even Locke hinted, no real scientific knowledge is possible at all! "A consistent sensationalism must be dumb."

"What, then, is a fact?" It is a thing which I know—a phenomenon or a relation of phenomena which I know to exist, to be true. The question then comes to be, "What is knowledge?" and "What is truth," or real existence? What is a phenomenon, and "What am I?" Now every possible answer to all or any of these questions involves a complete metaphysic; that is to say, it involves a systematic theory as to what is implied in knowledge—into the necessary conditions of experience. After all, as Descartes said, I can doubt of the external world—and yet not be, pace Dr. Maudsley, a madman. I can doubt of all received sciences and philosophies too; but I cannot doubt that I think, that I am conscious, that I am. These seem very scanty and simple residua; yet they contain implicitly all the metaphysics that ever were written. For consciousness, thought, knowledge, perception, or whatever else you call it, does imply certain truths, which can by just study be deduced and analysed out of it; and that is the work Philosophy has been doing, from Socrates to Kant.

Of course no one succeeds in ultimately doubting that in some sense most of these facts, and external phenomena, and scientific laws, and the rest, are true and most valuable. The whole question is, in what sense? Nobody doubts that what we call "the external world," is some really existent cosmos of phenomena, independent of our individual wishes and fancies, and guided in a stable order by its own laws. What many doubt is that that fact need necessarily lead us to Materialism. Nobody doubts that there are manifold bodily correlatives to what we call the action of the mind: that, for instance, when light affects our retina, a molecular disturbance is transmitted by the optic nerve to a definite cerebral organ, having connections with, and probably influencing and influenced by, other organs of various function. What is doubted is the assumption that such "vibratiuncles" (as Dr. Maudsley is not afraid to call them, after Hartley) "are ideas"—or, to put it less paradoxically, that ideas are nothing more than such vibrations of nerve matter. In a word, there are many, not hostile to Science, but its warmest friends, who hold that it will achieve most if, while following out its own researches with the uttermost enthusiasm, it can still remember that there is another side—a reverse line of inquiry, which starts, not from the "introspection," which Dr. Maudsley is always demolishing, but from a philosophical analysis of the meaning and prior conceptions of knowledge—and if, recognising this, it abstains from wild "hypotheses" as to the way in which mechanical or chemical forces might, by some inconcivable manipulation,

amount to Consciousness, Thought, Will and Self.

Dr. Maudsley will not indeed say that Psychology-meaning thereby the method of Introspection only—is quite useless. He will let it "observe the associations and sequences of mental states," because there is no other means of doing so. From any inquiry into the nature and meaning of these mental states he interdicts it absolutely. An "experimental physics of the mind" is almost too high a title for it. Its business is merely to record (and that it does badly) the reflections in the mirror of consciousness. What these are, or why or how they are there, is a question of "physical antecedents" he says-i.e., of physiology pure and simple—and "therefore no psychology can endure, except it be based upon its investigations." It is true physiology cannot yet explain any of these problems. The physical data are not ready. All it can do is "to overthrow the data of a false psychology." We are bidden to wait patiently for the rest. If we will only abstain from metaphysics and such other vanities of deep thinking for a century or two, a physical explanation will be provided. But we fear that men will not abstain from "thinking upon thought" for all the destructive physiologies can say. People will still ask, "What is a fact?"—and that is a question antecedent to all physics. For it is the question that must be answered by that "Philosophy" which is the basis, the logical prius, and, therefore, as we said, the unity of all the Sciences. It is this, whether we are to style it Metaphysics or by any other name, that we are concerned to vindicate against Dr. Maudsley's attack—and this only. The name does not matter, except that the thing is too often mistaken. Introspective Psychology, for instance—the school of Locke, Berkeley, and Hume, of Reid and Hamilton, perhaps of the Associationists also—we are not here concerned to defend. It is an inadequate method, and it has not a few weak points, which

Dr. Maudsley's criticism does well to vindicate and expose; though even to it he is, we think, sometimes unjust. But even though it were demolished utterly, this other Metaphysics or Philosophy, which rests not on Introspection, but on the consideration of the conditions precedent of all knowledge, would not thereby be touched. You may hold that Hume reduced Locke to absurdity, and that Mill refuted Hamilton, but neither of these touch Kant or any of his following. To prove to demonstration that the verdict of consciousness is hard to read, and little use when you have read it, would not advance the writer one step towards the removal of the deeper difficulty implied in the question, "What is a fact?"

It seems a simple thing to say that there can be no perceiving unless there is first a Mind, a Self, which perceives. Even on Locke's theory, which gave the Mind wonderfully little to do, there was at least a tabula rasa which was not given us by experience; and it had all manner of strange properties besides. A brain well mapped out, and nerve tracks with "vibratiuncles," are very well; but where does the consciousness come in? Who or what "attends to" all this recording machinery? Not to speak of Will, for Dr. Maudsley is frankly a fatalist, and compares one, after Spinoza, to a "stone conscious of its law of gravitation." To that question we will return; but in the meantime, what of "Attention?"

Dr. Maudsley, like most of the physiological school, bases his explanation of mental facts on the assumption of association of nerve motions, which is a kind of Humist "Association of Ideas" theory, translated into terms of physiology; though in justice we must say that he introduces a distinction of great value, by practically showing that Hume's Law requires some unifying principle to make it work, such as Dr. Maudsley finds in the organism itself. If it were reasoned out, this, as we have said, might very possibly prove to be a self-destructive position. Associated Ideas would never give us science or scientific truth. But let that pass, for we will return to it later on. It follows in any case that all our mental processes are streams of associated modes of mind, each of which is, Hume would say, "a copy of a past impression made on us through the senses." Dr. Maudsley has no trouble in translating this into physiological language. The "impressions" are the original excitations of the nerve-molecules, transmitted on to the brain, and there preserved

in the form of "vibratiuncles," or at all events in a constant tendency to repetition of the same molecular series of changes. Consequently our brain, and the other nervous organs too, are seething always with chains of kaleidoscopic "ideas" or vibrations, crossing and meeting and interwoven in endless ways.

Suppose, then, that we accept this statement of the case, there remain grave questions to be answered; and the answers force us, we submit, to recognise even here the paramount and unique importance of consciousness, or in other words, the existence of a Self in the metaphysical sense. Let us ask, for example, how it comes that we are not dazed and drowned in this hopeless swirl and chaos of suggestions? Because, they are not all in "Consciousness." The vast majority, whirl on in a silent meteoric shower, unnoticed by us, and unknown, except that we catch a glimpse now and then by accident. What then, we ask, is the principle of selection among these "ideas?" How comes it that one is in the light and others in the darkness? Because we attend to them. They go on wildly in all directions, and the conscious mind is hardly concerned in them; but let one train emerge which excites its interest, and it is pounced upon—it is "attended to"—" the transformation of energy is arrested for a moment," as Dr. Maudsley says\*—and straightway we are vividly conscious of this new idea, which may perhaps in the end alter our whole life.

Such a Consciousness, therefore, is a selective power. It "reinforces," so to speak, a certain nerve-change till that becomes dominant over all the rest. It brings order and purpose into what would otherwise be only a rich confusion. This, we submit, is an intelligible account of the actual facts of our experience. It explains the function of Attention, of Consciousness in our existence. But Dr. Maudsley would hardly agree with it. His view practically amounts to an automatism, in which Consciousness is an absurdity altogether. The jostling and clashing of vibrations, if we understand his position aright, is not ruled or made orderly at all. It is its own policeman. Somehow, by the eccentricities of the circulation in the brain, one train of vibrations, or one particular "idea," becomes conscious (whatever that may mean). But this does not alter the sequence: no new power is introduced: the "consciousness" is itself only

<sup>\*</sup> Dr. Mandsley allows that it "is arrested," but he does not say by whom.

a transformation of energy, a kind of mental flower, so to speak, chiefly ornamental. How that "manie de grandeur," the consciousness of Self, arises, Dr. Maudsley hardly explains—but whatever it be, that pale illusion has no power over the march of events along the mazy nervetracks. It is, as some one wittily said, "a passenger suffered to remain on board ship, on condition that it never lays a finger on ropes or rudder." What is the use of it, then? we are tempted to ask. Is it not useless absorption of energy, and should it not be cast out again, like Jonah? No, say its advocates, for though it has no selective power, and indeed no power at all, yet it is the condition of our feeling pleasure. To this we have a choice of many answers. On the one hand, we remember that a great physiologist said that men might have dissected brains for centuries, and yet they would never have suspected the existence or known the meaning of pleasure, unless they had experienced it themselves. From which we gather that there may be other powers also, besides this of feeling pleasure, which do not appear under the scalpel. Or, again, we may remind our friends that the condition of our conscious pleasures is also that which makes possible our pains; and therefore seeing there are many worthy men who hold that on the whole there is more pain than pleasure in our life, this gift of Consciousness may be a loss rather than a gain. Or, finally, we may go at once to the root of the whole matter, and ask them what they mean by our feeling pleasure? or even by our pleasure itself, if that phrase seems less ambiguous? If we are nothing more than the suggestions that arise and pass, from moment to moment, along the nerves—if there is no unity behind and above them, to which they "appear," and by whose synthetic, unifying action they become more than passing phases, more than ever-changing elements of an undistinguished flux—if there is no Self to which each sensation, as it arises, becomes related, and through which therefore each moment of pleasant feeling is fixed and defined by being set in relation to all other feelings and perceptions before and after—then life (even supposing it could be imagined as endowed with such "consciousness") could never be anything but an unmeaning blur, undistinguished, unremembered, unknowable, and certainly incapable of being talked about at all. When you say, "I feel pleasure," you postulate a whole volume of metaphysics. It is sometimes confusedly supposed to be only the same thing with the

bare sensation of heat, when one stands before a fire and is not unaware of the warm sensation. That is one thing—as near as we can get perhaps, to "mere consciousness." But when one awakes from the reverie and notices, attends to, perceives the sensation in question, in that moment an immense difference has been introduced. A veritable salto mortale has taken place. The warmth of the fire is no longer a mere sensation, a half conscious blur of evanescent feeling—it is a perceived sensation, a fixed point with all sorts of relations to everything else in our experience. It has become a fact.

This, then, may serve for an illustration of what we mean when we challenge Dr. Maudsley and his school to explain what they mean by "our pleasure." We hold that any real explanation of that phrase cannot fail to imply, in some form, a Self, which is more than a function of nerve vibrations—which is a unity beyond and above them—related to them actively and relating them to one another and to itself—and thereby giving to them all the meaning they have as facts of our experience. Even among the nervetracks themselves, therefore, and from the bare consideration of Dr. Maudsley's own theory of knowledge, we find support for this ubiquitous "manie de grandeur," the metaphysical ego. We shall find further necessity for it, when we come to consider the Ethics of Physiology.

Oxon.

(To be continued.)

Visions: A Study of False Sight. By Edward H. Clarke, M.D. Boston, 1878.

The circumstances under which this work was written, as well as Dr. Clarke's repute as the author of the clever books on "Sex in Education" and "The Building of a Brain," strongly enlist the prejudices of a reviewer in his favour. He was found to be labouring under malignant disease of the rectum. In the interval between his knowledge of his fate and his death, he resolutely set to work to study the phenomena of false sight. Thus carried out in the midst of intense bodily suffering, increased by the grief of losing his wife, who acted as his amanuensis, the result is itself a remarkable illustration of the influence of the mind over the body, a determined will over the usual effects of physical