REVIEW IX.

1. *Mind and Brain : or, the Correlations of Consciousness and Organization ; with their Applications to Philosophy, Zoology, Physiology, Mental Pathology, and the Practice of Medicine.* By THOMAS LAYCOCK, M.D., &c. &c., Professor of the Practice of Medicine, &c., in the University of Edinburgh. Two vols.—*Edinburgh*. 8vo, pp. 920.
2. *On Obscure Diseases of the Brain, and Disorders of the Mind : their Incipient Symptoms, Pathology, Diagnosis, Treatment, and Prophylaxis.* By FORBES WINSLOW, M.D., D.C.L., &c. &c.—*London*. 8vo, pp. 744.

THE conflicting and unsatisfactory results of abstract speculations on the constitution and powers of the human mind, have long been a source of regret and discouragement ; every attempt, therefore, which is in any degree judicious, to place mental philosophy on a surer basis than that on which it has hitherto rested, is to be entertained with candour, and, in so far as it may conduce to the desired end, to be accepted with thankfulness. Such an attempt has been made by Dr. Laycock, and not without success, in the work which stands first in the heading of the present article.

The failure which has hitherto attended such inquiries is attributed by Dr. Laycock to a variety of causes, among the chief of which may be mentioned the disjunction of mental philosophy from physiology, and the study of disease—the neglect of comparative psychology—the fact that the conclusions of metaphysicians have not been sufficiently tested by the general experience of mankind—and the influence of prejudices derived from speculative theology, and a supposed antagonism between revelation and science. His perception of these sources of error, and of the most likely means of obviating them, give a considerable value to his work, notwithstanding an essential faultiness in his method, and the introduction of a great many speculative views, which, we think, had far better have been omitted.

Anticipating, from the title, a work of a much more practical character, we were disappointed to find that a theory lay at the root of the whole matter. This theory is a sort of combination of the philosophy of Plato with the physiology of Stahl.* Dr. Laycock attributes not only the activities of mind, but those of life also, to “an immanent inherent energy, ever operative, which is not a mere physical or material agent, and which can only be conceived as an actually adapting force, manifested in the phenomena of life” (vol. i. p. 2). This “energy,” “mind,” or “soul,”† is not, however, in itself,

* Dr. Laycock regards Stahl's hypothesis of a common cause of mind and life, as a revival of that of Aristotle. But there was this great difference between them—that Aristotle, while he ascribed the nutritive, sensitive, appetitive, and motory functions to a kind of soul common to man, animals, and plants, regarded the thinking faculty as appertaining to another kind of soul, capable of separate and independent existence.

† Dr. Laycock, at different times, applies all these terms to what he regards as the

endowed with consciousness, which is developed only through the functions of the brain, but is, as it were, the unconscious vehicle of certain "archetypal" or "teleiotic" ideas, derived from the Divine mind, and carried into effect in the vital organs and functions.

Now, Dr. Laycock's theory may, perhaps, be as good as any other. But any theory accepted as a basis of scientific investigation, is decidedly objectionable on the ground that facts which will not conform to it are extremely apt to be overlooked, or unfairly dealt with, even where there is no intentional want of candour on the part of the theorist. It would not, we think, be difficult to point out several instances in which our author has been led, by his theory, to overlook or ignore subjects worthy of attention; but we will confine ourselves to one—namely, the possibility of a communication between departed spirits and men still living in the body. There is a great mass of alleged facts bearing on this point, which in times past were universally accepted by popular superstition, and pretty extensively even by learned credulity, but which were contemptuously dismissed by the philosophic scepticism of the last century. In the present day, there is a strong disposition in many quarters to subject them to a rigid and impartial scrutiny. This is the only fair and philosophical procedure with regard to them, and on the result of such scrutiny they must stand or fall. Dr. Laycock, however, comes to a summary decision, asserting, as to the possibility alluded to, that "as a speculative proposition it is useless even if true," while "it is practically pronounced by the enlightened experience of mankind to be false" (vol. i. p. 100). We differ from him both as to the value of the proposition if true, and as to the sufficiency of the ground on which he declares it false. If true, so far from being useless, it would at once solve, in the affirmative, the important problem of the immortality of the soul, and would, moreover, disprove the *necessary* dependence of consciousness and thought on cerebral action. Again, we cannot yield much deference to so vague an authority as that of "the enlightened experience of mankind." There is, doubtless, a common experience of mankind relating to ordinary matters, which must be held as authoritative, and from which no appeal can be allowed, because men of all ages and nations have been so unanimous therein, that if any individual oppose his own peculiar convictions to such experience we at once pronounce him perverse or insane; but this certainly entirely ceases when there are diversities in the experience, and we are called upon to decide

common cause of life and mind. It seems to us that there can be no clear reasoning on the subject of mind, while the term "mind" is used, as it continually is, by writers, in two different acceptations. It is used sometimes to designate the aggregate phenomena of thought and feeling, and at others to designate a something different from the body—whether separable from it or not—which is the cause of those phenomena. In the latter sense it seems synonymous with *soul*. Now we think that the term "mind," and its corresponding adjective "mental," should be restricted to the phenomena, and the term "soul," to the supposed cause alluded to. Of course, the materialist will have nothing to do with *soul*; but with him the terms "mind" and "mental" will still apply to the phenomena of thought, though he regards these merely as functions of the *brain*. We are convinced that the limitation of terms here proposed would prevent a good many logomachies.

which is the enlightened portion of it ; for then each of the conflicting parties will claim all the enlightenment for their own side of the question. We beg not to be understood as coming forward in the capacity of apologists for "the ghosts," in which all our habitual modes of thinking incline us to disbelieve ; but we are, nevertheless, advocates for impartial investigation, and would not have this, or any other subject of inquiry, hastily cast aside on the presumption of an *a priori* absurdity or impossibility in the alleged facts.

In our opinion, by far the most important positions in Dr. Laycock's work, are those relating to the nature of consciousness, to the connexion between the cerebral functions and the manifestations of mind, and to the instinctive character of the mental faculties. In reference to the first, Dr. Laycock observes that—

"The fundamental principle that existence in the order of events precedes thought, having been overlooked by the great majority of philosophers since the time of Descartes, they have commenced the investigation of the laws of thought independently of the laws of life or existence. Hence the doctrines of consciousness are founded primarily upon inquiries into how the man feels and knows, without reference to how he exists ; in other words, an 'immaterial' *ego* has been accepted as the proper subject of inquiry, rather than the 'concrete' *ego*." (Vol. i. pp. 133-4.)

He goes on to argue, that the consciousness of unity or personality depends on the correlation of life and mind ; that every man knows that he exists continuously, as one and the same, in health and in disease, in infancy, childhood, youth, manhood, and old age ; that in no two of these, and numerous other states and conditions, is he exactly the same ; yet that, with this incessant change, he is one and the same person throughout.

All this, we conceive, is perfectly correct, with the exception that, when Dr. Laycock speaks of "the laws of life or existence," he is taking for granted that there can be no existence independently of life, which, though part of his theory, is by no means necessarily true.

On the second point—the intimate connexion of the phenomena of mind with the functions of the brain—there cannot be two opinions among those acquainted with the facts of physiology. The only question is as to their necessary and inseparable connexion—a question which Dr. Laycock settles too peremptorily in the affirmative.

With regard to the third point—the instinctive, or innate character of the mental faculties—there can be no doubt that physiological observation has long been tending towards the conclusion that the phenomena of mind in man and the inferior animals differ not in kind but in degree, and that it is impossible to draw any distinct line of demarcation between what is called "mind," and what is called "instinct."

On the whole, we believe that the three following propositions will scarcely be disputed by any sound physiologist, or by any metaphysician who has a competent knowledge of physiology :—

1. That in our present state of existence, consciousness is exercised in connexion with combined mental and corporeal conditions and

actions ; consequently, that the question whether or not it may exist in a thinking principle distinct from the body, is one for the metaphysician merely ; while the subject of inquiry for the practical psychologist is the consciousness of the living and concrete man, with whom he is alone brought in contact.

2. That the phenomena of mind, in our present state of existence, are so intimately connected with those of life, and especially with the functions of the brain, that they can only be practically or profitably studied in close connexion with them.

3. That there is at least a strong probability that the mental powers of man and of the inferior animals are of a similar nature ; that they are of an innate or instinctive character in both, and that, consequently, the study of comparative psychology may be found to stand in nearly the same important relation to mental philosophy that comparative does to human physiology.

It appears to us that, in adopting these propositions, we are going as far with Dr. Laycock as is necessary to an investigation of the subject of "Mind and Brain," according to all that is really practical in the method of inquiry which he advocates ; and if we decline to accept his hypothesis of the identity of life and mind, it is because it explains nothing that may not be as well explained without it, while it excludes possible facts that might be incompatible with it.

With respect to what may be called the "Platonic" portion of Dr. Laycock's views, the "archetypal ideas" must be admitted to exist somewhere, or they would not be realized in creation ; but, if we suppose them to remain in the infinite and self-conscious intelligence, rather than to be delegated to a finite and unconscious thing, such as Dr. Laycock imagines the soul to be, we are merely availing ourselves of the liberty conceded in the sound *dictum* of Samuel Johnson, that "on the arena of conjecture all men stand equal who are equally well informed." In connexion with this part of the subject, we may remark that it is not needful to have recourse to any derivative or secondary mind to account for the phenomena manifesting design in the living body. The phenomena of the inorganic universe are equally indicative of design ; yet no one now-a-days imagines that there is any secondary mind, or *anima mundi*, lurking under them. It is believed simply that the wisdom of the Deity, working through the laws and properties of ordinary matter, accomplishes certain ends ; and if so, why may not the same wisdom, working through the laws and properties of living matter, accomplish the ends necessary to the organism ? It seems singular that Dr. Laycock should have thought it needful to resort to a derivative mind to carry out the Divine ideas in the living body, while he does not put in requisition any similar mind to carry out the ideas in the inorganic universe.

In asserting the inseparable connexion of the science of mind with the physiology of the brain, Dr. Laycock does not undervalue the importance of logic and metaphysics.

"There can be no observation without thought about the thing observed, and no right or useful thought without that discipline of the mind which a

knowledge of true logic and metaphysics implies. Undoubtedly they have been either wholly neglected, or treated as of secondary importance by many modern inquirers; but it will be found on examination, that these persons have fallen into errors which the knowledge they despised would have enabled them to avoid, or have been less successful than they otherwise would have been, or from a natural defect in the constitution of their minds, have not been able to perceive the true uses and applications of logic and metaphysics in inductive research." (Vol. i. pp. 4-5.)

It may be added, that whatever view we take of the causes of mental phenomena, the phenomena themselves are essentially abstract. Ideas can neither be compared by geometry, nor analysed by chemistry; yet they are susceptible both of comparison and analysis; but these are to be effected by processes of reasoning, in the use of which accuracy is only to be attained by appropriate method and frequent exercise. The great error of metaphysicians has consisted in applying abstract reasoning not only to the products of mental operations, but to the operations themselves, without considering how far material organization and vital action might be concerned in them.

With these general strictures, which may obviate the necessity of frequent repetition, we proceed to such brief notice of the several divisions of Dr. Laycock's work as our limits will allow.

The subject is distributed into six parts, of which the first embraces a "Preliminary Dissertation on Method;" the second, "Metaphysics;" the third, "Mental Dynamics," or "Teleology;" the fourth, "Principles of a Scientific Psychology;" the fifth, "Principles of a Mental Physiology;" and the sixth, "Principles of Mental Organology."

PART I.—THE METHOD OF STUDY.—We can here only find space for Dr. Laycock's "Summary of the Method," which is as follows:

"If, then, we consider the preceding doctrines with a view to a practical development of our proposed method, we shall find that there are three stages or steps by which it may be carried into effect. First, we shall have to inquire into the general and scientific experience of mankind as to their states of consciousness (empirical psychology); next, we shall have to examine into the fundamental laws of existence (ontology); and thirdly, into the first principles of mind as an ordering force to ends (teleology, or mental dynamics). In the first, we examine consciousness in relation to vital phenomena; in the second, existence in relation to vital and physical phenomena; in the third, we develop the great correlations of mind with the physical and vital forces considered in relation to design in creation, viewed as a systematic unity, or the doctrine of ends. This will bring the highest manifestation of mind—as a creative and regulative power—into synthesis with creation, and consequently into synthesis with the human mind. Here the method will show that the ideas of the Divine mind, as revealed in the phenomena of creation, are none other than the fundamental ideas and *à priori* conceptions of the human mind as revealed in consciousness; that the ends aimed at and attained by the Creator, are the objects of the instinctive designs of the creature; and that, consequently, the phenomena of nature constitute a reflex of the human mind. Or, to use the words of M. Agassiz, 'the whole universe may be considered as a school, in which man is taught to know himself and his relations to his fellow-beings, as well as to the First Cause of all that exists.' In this way we shall have completed the task which we proposed at the outset—namely, to develop a method of philosophical inquiry which should combine the three

great departments of human knowledge into unity, and attain to a knowledge of human nature, not empirically only, but deductively; through principles derived from the entire range of all science. Such principles being established, they can be applied derivatively to the development of each department of philosophical culture. In establishing these principles, I shall show their general applications to metaphysics, or a science of the fundamental laws of thought; to biology, and the entire group of natural history sciences; and to sociology; and then proceed to develop more especially the scientific basis of a mental physiology and organology, and their bearings upon medical psychology, and mental pathology. The whole will thus be a philosophical, scientific, and practical exposition of the fundamental laws of life and thought in their correlations. As such, it will constitute a solid basis upon which the metaphysician, moral philosopher, political economist, biologist, zoologist, and medical practitioner, can alike build up their respective departments; and at the same time be a starting-point for the man of general culture who wishes to study human nature under all its multifarious aspects." (Vol. i. pp. 113-15.)

The Doctor takes rather a wide range, and we think he does well to add to the foregoing, that such a field of inquiry "must necessarily be passed over cursorily," and that "errors, too, are inevitable from the very nature of the subjects considered."

PART II. METAPHYSICS.—These Dr. Laycock treats of under three divisions, embracing "The General Principles of Experience," "Empirical Psychology," and "Ontology." On the question, "What is the nature of matter, and what of mind?" our author appeals from philosophy to the experience of mankind. He observes that—

"Experience gives what appears to be a simple solution. Matter is not mind, just as mind is not matter. Mind is therefore *immaterial*, and that which we cannot touch, handle, see, feel, and the like. On the contrary, matter is that which we *can* touch, handle, see, feel; and since we experience certain changes in our consciousness when we thus examine matter to which we give names, we connect those changes causally with the thing handled, touched, and the like, and we say they are due to the *qualities* of hardness, extension, weight, coldness, warmth, and the like—which names indicate changes in our consciousness. These causes of change we conclude to be inherent in the thing touched, inasmuch as without them we experience no sentient changes, and have no knowledge of matter, or of the thing we term material. Now, philosophers have raised many discussions upon these and other notions as to the nature, qualities, and properties of matter, which are to be found in works on philosophy and metaphysics; but mankind in general have had little difficulty in deciding what is mind and what is matter." (Vol. i. pp. 118-19.)

It appears to us, however, that Dr. Laycock's reasoning only goes to prove that neither philosophers nor mankind at large know anything about the nature either of mind or of matter. We know of mind that it is not matter, but that throws no light on what matter is; again, we know of matter that it is not mind, but that throws no light on what mind is; so that all we know of either amounts to a negation—that is to say, to no knowledge at all.

The division on "Empirical Psychology" treats of "Consciousness as the Ego;" "Consciousness as the Feelings and Sensations;" "Consciousness as Knowledge, Cognitional Consciousness;" "Successional Consciousness, or Thought;" and "Consciousness as Will, or Volitional Consciousness."

These subjects are in many respects ably handled; but, to our apprehension, the tendency of the whole is to disprove Dr. Laycock's own doctrine, that mind may be independent of consciousness; since all possible manifestations of mind are here represented as what they really are—so many different modes of consciousness.

This shows how necessary it is to keep in view the limitation of the term "mind," which we have proposed in the note to p. 406. If man has a soul (as we believe), it is obvious to common observation that this soul continues to exist during various states in which the consciousness of the concrete man is in abeyance; but if all the developments of *mind* consist in some modification of consciousness, to speak of "unconscious mind," or "unconscious mental action," is a mere contradiction in terms.

In the "Ontology," our author evidently mistakes unconscious cerebral actions for unconscious mental actions. There is no doubt that unconscious cerebral actions are continually taking place; but these, from the very fact of their being unconscious, are not mental in any ordinary or intelligible acceptance of the term. Perhaps Dr. Laycock may call them "mental," as supposing them to appertain to the mind, which he regards as the principle of life as well as of conscious existence, but which he alleges to be, in itself, unconscious. If so, he uses the term "mental" in a sense altogether peculiar, and which is admissible or requisite only on his own hypothesis.

The phrase "latent consciousness" also appears to us to be very objectionable. What do we mean by "consciousness?" Simply the *conscientia*—knowledge of, or privy to—certain states and actions occurring in ourselves. Its very nature excludes the notion of latency. The capacity of consciousness may exist, though the conditions of consciousness be not present; but consciousness itself is nothing, unless in activity.

The elucidation of unconscious cerebral action owes much to the labours of Dr. Laycock; but he has, in our opinion, failed altogether to perceive the most important application of the doctrine—namely, to show that certain phenomena which have sorely puzzled the psychologists, and given rise to various unmeaning terms, are not mental, but simply vital. It is curious that, in one passage of his work, he has actually stated this truth in an explicit manner, and has then immediately mystified it by a touch of theory. In Vol. i., p. 185, in reference to such phrases as "insensible perceptions," "perception without apperception," "latent consciousness," and "unconscious mental states," he says:—"All these terms are really applicable to *vital* sequences occurring in the organ of thought, without any consciousness or knowledge of them or their results on the part of the individual." This is the truth. But then comes the mystification: "Which sequences occur, however, according to mental laws as revealed to us by or in consciousness."

We are tempted to go into the subject of "mental latencies," in regard to which our author follows Sir W. Hamilton, but our space will not admit of it.

In the chapter on "Instinctive Existence," Dr. Laycock enters into a comparison between the mental constitution of man and of the inferior animals, and argues that—

"The instinctive character of the mental faculties in man has been fully recognised by philosophers of all times; just as, conversely, the rational character of the mental faculties of lower animals has been recognised by the common sense of mankind." (Vol. i. p. 192.)

On the latter point it might, perhaps, be rather said that the rational character of the mental faculties of the lower animals is practically admitted by the manner in which men deal with these animals in their education and management; for, as a matter of opinion, we still find a great part of mankind regarding animals as if they had no reason, but were guided by "instinct," which is supposed to be different from reason, and to supply its place.

The greater part of our author's observations on this subject are accordant with observation and sound sense; but not so his conclusion that the mental phenomena in man are vital, because they are so in the lower animals. (Vol. i. p. 197.) That they are so essentially in either is a mere assumption.

PART III. MENTAL DYNAMICS, OR TELEOLOGY.—This is divided into: 1. "The Correlations of Causes, or First Principles of Etiology;" and 2. "Biology." The first treats in succession on the general doctrine of correlative causes, on the correlations of the vital forces, those of the physical and vital forces, and those of the physical, vital, and mental forces; and then gives "A General Formula of the Correlations of Life and Consciousness." We confess we never hear the word "correlation" without a feeling of uneasiness; so intimately is it associated in our mind with that transcendental tendency which seems to be pervading every department of science, and infecting even the results of observation and experiment with something of the vagueness and uncertainty of abstract speculation. That an important generalization may possibly issue from the attempts now making to reduce to a common law the various forces which operate on matter, we do not dispute; but we are fully convinced that this question should not at present be mixed up with any practical subject; otherwise, conclusions much more singular than valuable are, we think, likely to be arrived at. We do not see that this kind of inquiry can be brought to bear at all profitably on the study either of life or of mind; because, in respect to life, we know not how far its laws may be derivative from those of ordinary matter, or entirely different from them; and in respect to mind, we know not how far its phenomena may be due to vital agencies, and how far to a power the nature of which entirely eludes our research. We may therefore be excused from entering into the subjects discussed in these five chapters, in which, however, the reader who is partial to such speculations will find much that may be to his taste.

In the eighth chapter, on "Mind considered as the First Cause," Dr. Laycock argues in favour of the personality of the Deity. In such personality we believe; but our conviction is founded rather on

religious than on philosophical data, and we cannot but think the inquiry foreign to the proper subject of the work before us.

We mentioned early in this article, that Dr. Laycock enumerates among the causes which have retarded the progress of psychology, a supposed antagonism between revelation and science, and as we have not found an opportunity of introducing the subject sooner, we may advert to it here. Our author mainly follows Dr. Whewell, in whose observations there is much both of truth and of eloquence. But we think that the matter is best placed on the simple basis that revelation has nothing at all to do with science; that the inspired writers were not commissioned to teach philosophy but religion; and that if they had propounded the doctrines which science now accepts, they would merely have been arraying popular prejudices against them, and thus raising unnecessary obstacles in their own path. We may add that, taking the relations in which revelation and science stand to each other in the present day, it appears to us as idle to object to Scripture that it does not afford a solution of scientific questions, as it would be to object to astronomy or geology that they do not point out the way of salvation.

On the second division of "Mental Dynamics"—that on biology—we need not dwell. It is very well as a piece of transcendental physiology, but has little that bears practically on the science of mind. The following, however, requires notice :

"In the vital affinities of life and organization, we can discriminate between the force and the idea. Thus, when two cells come within the sphere of each other's action, two processes begin: *firstly*, disintegration (corresponding to decomposition in chemical processes), so that each cell ceases to be one by continuous dichotomy, and so disappears; *secondly*, integration, so that the two are formed into one. In this process it is a necessary condition to the series of changes that the two cells act upon each other. Nevertheless, there must be dynamical relations existing, antecedently but potentially, between the cells, such that the ends be attained. Now these dynamical relations are not accidental, but depend upon the causal antecedents of the two cells. The cells must be integrations of the multiform manifestations in time and space of an archetypal idea in a pre-existing individual; or in other words, must belong to the same species. There is thus a vital affinity between the two cells. When this is not present, as is the case when the generative cells of *different* species are brought into contact, there is no teleorganic change set up, and no sequences of phenomena begun." (Vol. i. p. 395.)

But sequences of phenomena do sometimes take place when the cells are of different species, and the question arises—What sort of archetypal idea inhabits the cell in such cases? For example, when a mule is engendered between a horse and an ass, is the archetypal idea that of a horse, an ass, or a mule?

PART IV. PRINCIPLES OF A SCIENTIFIC PSYCHOLOGY.—In this part Dr. Laycock deviates less than usual from the track of custom. It is a sufficiently instructive digest of the opinions of various writers, tintured of course by his own peculiar views. There is not, we believe, anything in it to which we need specially refer.

PART V. PRINCIPLES OF A MENTAL PHYSIOLOGY.—In this the chapter which seems most worthy of attention is the second, containing

an "Historical Review of Researches into the Law of Cerebral Differentiation with Unity of Function."

In the section on "The Physiognomical Method of Research," Dr. Laycock makes some interesting remarks on the faculty of the diagnosis of character by means of physiognomy which is possessed both by man and animals, and which he regards as instinctive. We have not space to transcribe the passage, which will be found in vol. ii. p. 157.

The subject of physiognomy leads to cranioscopy, and this to phrenology. On the last, Dr. Laycock somewhat characteristically remarks:

"The phrenological school have had to carry on an incessant war in defence of their doctrines, but more especially of the physiognomical portion, which is the most vulnerable. I need only notice here the controversies which have arisen out of the doctrine of multiplicity of organs and diversity of function. These have originated in one fundamental defect—namely, the omission to recognise that law of unity in multiplicity, and of multiplicity in unity, which is the fundamental law of both mental and vital processes alike." (Vol. ii. p. 172.)

We apprehend, however, that the war which the phrenologists have had to wage, has been chiefly attributable to their own defective method of inquiry. Phrenology, as far as regards its susceptibility of proof, has one great advantage over all other systems in which mind is involved—namely, that it appeals directly to certain alleged facts; and if these facts be established, the doctrine follows as an inevitable consequence. Now, these alleged facts are, that the mental faculties and moral propensities of man and other animals depend on the development of certain portions of the encephalon, as indicated by the configuration of corresponding portions of the cranium. It seems extraordinary that a question at once so important to the interests of society, and apparently of such easy solution, should have remained for more than half a century in dispute, and be (as it would seem) no nearer a settlement now than it was at first. These very facts prove some radical defect in the method of observation. This defect we conceive to consist—1, in accepting a system of "organs," not one of which has received sufficient individual proof, and balancing these against one another to meet objections—a mode of demonstration which might appear to prove anything, and which therefore really proves nothing; 2, in overlooking the consideration, that as the greater number of persons exhibit nothing very striking, either in their mental characteristics or in the shape of their skulls, no sufficient test of the truth of any individual organ can be obtained from any but particular and strongly-marked cases, in which the quality and the organ are unmistakeably prominent or deficient. Let each of the organs be enabled to stand on its own ground, by a sufficient number of unequivocal observations; then, and not till then, may the different organs be legitimately brought to bear upon one another. This was, in fact, the method followed by Gall himself; and if his disciples had kept to it, we should ere this have had a practical solution of the phrenological question.

In Chapter IV. of this part, "Outlines of a Classification of Cor-

relative Mental and Vital Phenomena," there is a section on the "Primordial Instincts; and first among these Dr. Laycock places—

"*Dynamization*, or the acquisition and application of force to the continued existence in time and space of the individual and of the species. This includes the development and application of the mechanico-chemical forces, especially light, heat, electricity, and chemical affinity, to vital motion and teleorganic changes." (Vol. ii. p. 190.)

And he adds, in a note—

"I have ventured to coin a word so as to denote this fundamental mode of vital energy; hitherto the law has not been formularized, and no term, therefore, has been invented to designate it."

We must confess, however, that we cannot here perceive any new law.

PART VI. "MENTAL ORGANOLOGY."—For what he includes under this term, and the limits within which he intends to pursue the subject, Dr. Laycock refers back to a passage in the Introduction to Part V. He there defines mental organology as "a doctrine of organization in relation to the varied states of consciousness which constitute in their totality the mental life of man." (Vol. ii. p. 140.)

This part contains less of the peculiar theoretical views of the author than any other part of the work. It is, in fact, a rather elaborate essay on the anatomy and physiology of the nervous centres. We have no particular remarks to make upon it.

There is an Appendix containing an "Examination of Dr. Carpenter's Claim of Priority as to the Discovery of the Law of Unconscious Cerebral Action." In this Dr. Laycock seems to accuse Dr. Carpenter of a wish to appropriate what does not belong to him. But the accusation is evidently quite unfounded. It seems, by Dr. Laycock's own showing, that the question of priority was amicably discussed between Dr. Carpenter and himself five years ago, and that it was agreed that Dr. Carpenter should, in the next edition of his 'Human Physiology,' acknowledge that not only the doctrine of reflex or unconscious cerebral action, but the applications of that doctrine to insanity, dreaming, somnambulism, hypnotism, electro-biology, reverie, &c., were due to Dr. Laycock; but that, no new edition of Dr. Carpenter's work having been yet called for, no such acknowledgment has yet been made. Surely Dr. Laycock has nothing to complain of in all this; and we have no doubt that Dr. Carpenter, when the next edition of his work does appear, will fulfil whatever he may have promised. But it would not be just to omit remarking, that if Dr. Carpenter yielded to Dr. Laycock the priority in respect to unconscious cerebral action, he must have been induced by feelings of politeness to yield more than he was strictly called upon to do; for it certainly was not, in the first instance, either plainly expressed by Dr. Laycock, or generally understood by physiologists, that his "reflex action of the brain" was unattended with consciousness. Neither Sir H. Holland, Dr. Symonds, Dr. Noble, nor Mr. Dunn regarded the matter in this light; as, indeed, how should they, when Dr. Laycock's illustrations were all drawn from instances in which consciousness was obviously involved?

It will be observed that we have not attempted any critical analysis of the entire contents of Dr. Laycock's work. We have avoided such attempt—first, because we should have required a space equal, at least, to that occupied by one entire number of this Journal; secondly, because there are considerable portions of the work which, if divested of the obscurity which too speculative reasoning and a peculiar phraseology have thrown around them, would be found not to contain anything very extraordinary.

This is a most unequal work, exhibiting both great merits and great defects. Among its merits may be mentioned extreme ingenuity; extensive and accurate information on a great variety of subjects; and, above all, the distinct indication of certain paths of inquiry which decidedly lead in the right direction. Among its defects, the principal are, that which we have fully commented on, of assuming a mere theory as a basis of inquiry; that of attempting to embrace far more than any one mind, however gifted, could possibly deal with; and, lastly, a great want of close reasoning and of simplicity of language, so that all that is valuable in the work might have been set forth more clearly in half the compass. The author states in his preface, that the work is primarily intended as a class-book for students. To this end, however, it is in no way adapted; the advanced psychologist alone could either appreciate its excellences or detect its fallacies.

With all its faults, Dr. Laycock's work must be considered as a remarkable and valuable contribution to psychology, and as claiming a place in the library of every philosophical physician.

We now turn to Dr. Winslow's volume. He tells us in his preface, that it was originally intended as an introductory chapter to a treatise which he has in preparation, 'On Softening, and other Types of Organic Disease of the Brain.' The length, however, to which the prefatory essay extended, determined him to enlarge it still further, and to publish it in a separate form. The author commences by pointing out the importance of attending to the premonitory symptoms of cerebral disease, and shows how great and general is the neglect of the subject. The cause of this neglect he ascribes to "a notion too commonly entertained, that many fatal cerebral diseases are *suddenly*-developed affections, presenting no evidence of antecedent encephalic organic change, and unaccompanied by a premonitory stage or incipient symptoms" (p. 4). He refers to the numerous cases in which fatal attacks of cerebral disease, said to be sudden, reveal, on dissection, structural changes which can only be the result of morbid processes of long duration, and argues that it is neither logical nor in accordance with fact to suppose that such serious disease of the brain could have been developing itself for months or years, without impairing or deranging the recognised functions of the cerebro-spinal system. It is admitted that the early symptoms of cerebral disease are often so slight as entirely to escape ordinary observation. Dr. Winslow, however, maintains that there are certain precursory diagnostic symptoms which will enable the intelligent and careful physician to discover the presence of incipient disease in the brain, when the patient and those

around him repudiate any such notion, and acknowledge no necessity for medical interference. He does not assert that the exact nature or precise locality of the disease can always be ascertained, but thinks it easy to determine the general questions, whether the brain be the seat of disease, and whether the disease be of a primary or sympathetic character.

The importance of an early recognition of disturbed cerebral function is forcibly illustrated in the case of mental disorder :

"It is a well-established fact, that *seventy*, if not *eighty* per cent. of cases of insanity admit of easy and speedy cure if treated in the early stage, provided there be no strong constitutional predisposition to cerebral and mental affections, or existing cranial malformation; and even where an hereditary taint exists, derangement of mind generally yields to the steady and persevering administration of therapeutic agents, combined with judicious moral measures, provided the first scintillations of the malady are fully recognised, and without loss of time grappled with, by remedial treatment." (p. 18.)

We may remark, by the way, that "to grapple with a scintillation" is rather a queer mode of expression.

Considering it then sufficiently established, that there is in all affections of the brain a precursory stage which it is of the utmost importance to detect, Dr. Winslow proposes to analyse his subject in the following order :—

1. MORBID PHENOMENA OF INTELLIGENCE.
2. MORBID STATES OF MOTION.
3. MORBID CONDITIONS OF SENSATION.
4. MORBID PHENOMENA OF THE SPECIAL SENSES—

Sight.

Touch.

Hearing.

Smell.

Taste.

5. MORBID PHENOMENA OF SLEEP AND DREAMING.
6. MORBID PHENOMENA OF ORGANIC OR NUTRITIVE LIFE—

Digestion and Assimilation.

Respiration.

Circulation.

Generation.

7. GENERAL PRINCIPLES OF PATHOLOGY, TREATMENT, AND PROPHYLAXIS.

In the third chapter, on the "Premonitory Symptoms of Insanity," Dr. Winslow adverts to the close resemblance between many forms of insanity, and the state of the brain and mind during sleep and dreaming, and illustrates it by the correspondence of the state of mind between sleeping and waking, with that of approaching alienation; by the phases of unusual intellectual vigour and acuteness which are developed in certain forms of mental disorder, as well as, occasionally, in dreams; by the incongruous conceptions, fantastic combinations of images, incoherence of ideas, and loss of dominion of the will, which characterize both dreaming and many conditions of disordered intellect; by the rapidity of mental action which compresses the events of hours, days, or years into a few minutes or

seconds of time, and which is common to dreaming and to insanity; and by the clear apprehension which the mind sometimes evinces in both states of its morbidly automatic condition :

"A person whilst under the influence of a series of fanciful occurrences, created by dreaming, or insanity, will occasionally acutely reason with himself as to the *reality of the images* occupying the attention, and be fully conscious that he is insane or dreaming." (p. 44.)

We know not how far it may have been attempted to compare the states of sleep and dreaming in the sane and the insane. Such a comparison would be beset with great difficulties, but might, perhaps, yield some useful results. In another part of his work, Dr. Winslow gives a very singular case in which insanity appears to have had its commencement in a dream, and to have been a continuation of the train of perturbed thought which arose during sleep. (pp. 614-15.)

In the fourth chapter, "Confessions of Patients after Recovering from Insanity, or, the Conditions of the Mind when in a State of Aberration," our author observes that—

"The autobiography of the insane, embodying a faithful record of the state of the intellect, emotions, and instincts, whilst fading into a condition of alienation, as well as an accurate account of the condition of the mind after its complete subjugation by disease, proceeding from the pens of persons who have passed through the terrible ordeal of insanity, opens a new and profoundly interesting page in the history of the pathology, as well as philosophy, of the human mind. And it may be asked—Is it possible for the insane accurately to describe the state of their mind during a paroxysm of mania? Can they have any recollection of their incoherent ramblings, wild and fanciful imaginations, horrible and frightful hallucinations? In many cases, such is the fact. Insanity does not invariably overthrow and alienate *all* the powers of the understanding." (p. 47.)

Dr. Winslow gives *in extenso* several such records, which are highly interesting; but it would, of course, require a large accumulation of similar documents to afford any sufficient data for general inferences.

The following chapter, on the "State of the Mind when Recovering from an attack of Insanity," contains also several interesting cases. There is a passage in one of them which is highly suggestive :

"I felt I was recovering, the delusions gradually losing their hold upon my fancy. I then began to entertain doubts as to their reality. I felt disposed to listen patiently to the judicious advice of my physician. I was no longer irritated at being told that my perceptions were false, and began to appreciate the absurdities of other patients." (p. 150.)

This shows the advantage of allowing the lunatic, where he is not dangerous, to exercise his social instincts by keeping company with other lunatics; and it shows also the propriety on the part of the physician of waiting patiently for the moment when sane advice may be administered. While the patient remains under the influence of a strong delusion, the worst thing we can do is to argue with him; but when we perceive that he is gradually becoming rational, he may be greatly encouraged and benefited by our acquiescence in his improved views.

In his sixth chapter, Dr. Winslow treats of the statistics of insanity among children, and of anomalous and masked affections of the mind. In reference to the former subject, Dr. Boutteville's observations give 0.9 per cent. of the ages from five to nine. Drs. Aubanel and Thorpe observed, in the Bicêtre, in the year 1839, eight cases of mania and one of melancholia in patients from the age of eleven to eighteen years. Dr. Brierre de Boismont states as the result of his own experience, that among forty-two young people in whom the mental disease commenced between fourteen and sixteen years of age, eighteen inherited it from their parents. In by far the greater number of cases, the disease was connected with the age of puberty and menstruation. Almost all the patients were stated to have been as children, sometimes sad, and at others wild and ungovernable; incapable of steady application to work; either not possessed of talent, or exhibiting it only in momentary flashes; refusing to submit to any rule; some apathetic, and not to be excited by emulation; others exhibiting a volatility not to be repressed. Many had been subject to spasmodic attacks. In eighteen instances recovery took place, but there was a liability to relapse; there also remained a remarkable strangeness of character and an inability to assume any fixed position in life; and some gave but insecure evidence of the recovery being permanent. The conclusion is, that the mental alienation of children and young people is a most serious form of insanity, partly from their antecedents, and partly from the imperfect development of the cerebral and other organs. (pp. 166-7.)

In respect to masked and anomalous mental affections, Dr. Winslow comments with ability on those cases in which the mind may be said pathologically to be disordered, though the patient be not insane in the legal acceptation of the term. He asks, "Have we in practice sufficiently appreciated this distinction?" and intimates that—

"Fearful of committing ourselves to an opinion that might authorize an interference with the free agency of the patient, and justify the use of legal restraint, there has existed an indisposition to admit the presence of positive mental disorder, even in cases where it has been obviously and painfully apparent." (p. 173.)

He adds that this excessive caution has often been productive of irremediable mischief:

"This type of mental disorder," he continues, "exists to a frightful extent in real life. It is unhappily on the increase, and it therefore behoves the members of the medical profession, as guardians of the public health, as philosophers engaged in the loftiest and most ennobling of human inquiries, as practical physicians called upon to unravel the mysterious and complicated phenomena of disease, and administer relief to human suffering, fearlessly to grapple with an evil which is sapping the happiness of families, and to exert their utmost ability to disseminate sound principles of pathology and therapeutics upon a matter so intimately associated and so closely interwoven with the mental and social well-being of the human race." (p. 174.)

Dr. Winslow states that his observations do not refer to ordinary instances of eccentricity, to idiosyncrasies, or to those cases in which one absorbing idea exercises an undue influence over the thoughts and

conduct ; nor to examples of irritability, violence, coarseness, brutality, vicious or criminal propensities, caprice, or extravagance, which are unhappily too often natural to the individual in the state of health ; but to those cases only in which such peculiarities can be clearly shown to be the results of disease. He directs attention to the facts, that while such morbid phenomena sometimes exhibit themselves in an exaggeration of some natural peculiarity, they present at other times a direct antithesis to the ordinary character of the patient.

In considering the legal bearings of such cases, he ably advocates the necessity of medical, as the only competent testimony ; observing that—

“We have recourse to able, skilled, and scientific witnesses to elucidate difficult and disputed points in engineering, architecture, mechanics, navigation, feigned writing, chemistry, and many of the exact as well as speculative sciences, and upon what ground should we repudiate the testimony of learned and experienced men, practically acquainted with the phenomena of insanity?” (p. 214.)

He shows the inconsistency exhibited by courts, juries, and the public, according as the case is one of murder, suicide, or *de lunatico inquirendo*. In reference to the first, he remarks—

“The public mind is violently shocked at the commission of a horrible and brutal murder. The act is viewed in the abstract as one of great and barbarous atrocity, apart altogether from all its concomitant extenuating medico-psychological considerations.” (p. 224.)

In reference to the two latter, he says—

“The jury, in the one case, is most anxious (influenced, no doubt, by right and charitable motives) to protect the memory of the *suicide* from the imputation of *sanity* ; and in the second instance (totally ignorant of the extent of desolation and misery that are, alas ! so often entailed upon families by an obstinate determination not to recognise the existence of insanity), they stretch a point to shield the subject of inquiry from what is unphilosophically termed the *stigma* of mental derangement.” (p. 218.)

And he then shows how unjustly medical witnesses are extolled or abused, according as their testimony runs with, or counter to, the current of popular prejudice.

From the multiplicity of subjects treated of in Dr. Winslow's work, our notice of it must necessarily be confined to a few somewhat desultory remarks.

When treating of the spectral illusions which are common in the first stage of insanity, or that of “consciousness,” Dr. Winslow cites an extraordinary case from the ‘*American Journal of Insanity*’ for October, 1859 ; but makes no comment on the singular circumstance, that several persons whose visionary forms appeared to the patient, are alleged to have died just at the time of the apparition.

In the chapter on the state of “Exaltation,” when speaking of feigned insanity, he remarks that it is often unmasked by placing the patient under the influence of chloroform, and proposes the same procedure as a means of detecting lunacy when cunningly concealed. He says that “there can be no doubt as to the effect of chloroform in

giving, in a particular type of case, great temporary prominence to insane delusions" (p. 279), and states that he has sometimes observed hallucinations previously latent, or feebly manifested, to be brought into prominence under its influence.

Under the head of "Mental Depression," he observes that, "If the evidence generally adduced at the coroner's inquest is to be credited, in nearly every case of suicide cerebral disorder has exhibited itself, and the mind has been clearly and palpably deranged." (p. 300.) He is of opinion that cases in which persons are impelled to self-destruction by some concealed delusion are more frequent than is generally imagined. In this we agree with him; indeed, we believe that the disposition to suicide is seldom entirely unconnected with delusion. Those cases in which it is so must belong to the category of perverted instincts.

Dr. Winslow has many good remarks on "The Morbid Phenomena of Attention;" and justly regards impaired power of attention as entitled to serious consideration in connexion with incipient cerebral and mental disease.

On the subject of the *memory* of the insane, Dr. Laycock doubts the accuracy of the opinion entertained by many, that this faculty is the first to decay :

"It is true," he says, "that in many cases the patient has but a feeble and confused recollection of the transactions of recent date; but is able vividly to recal to the mind the scenes of early life. It is undoubtedly a fact, that the conversations of old, incurable lunatic patients relate principally to the events of past years; but, at the same time, they do not manifest that utter obliviousness and forgetfulness of recent circumstances that Dr. Haslam and others appear to believe. I have witnessed some singular instances among the insane of extraordinary retentiveness of memory, relating to recent transactions; but I am bound to admit, as a general postulate, that this faculty is found, in the majority of cases, in an impaired and muddled state." (p. 425.)

In the chapter on the "Morbid Phenomena of Sensation," Dr. Winslow directs particular attention to the subject of epileptic vertigo—the *petit mal* of the French writers. He represents it as occurring at all periods of life, and in various degrees of severity. He affirms it to be a common affection in childhood, often fatally undermining both the bodily and mental constitution before its existence is suspected. He says that "there is no type of epilepsy so fearfully and fatally destructive to the intelligence" as this :

"It is generally associated with obscure and not easily detected or defined changes in the cerebral tissue. These pathological alterations are more particularly diagnosed* in the advanced stage of the affection. Hence the grave importance of an early recognition of this subtle and insidious form of vertigo, and the necessity for a speedy administration of remedies for its cure." (p. 543.)

Chapters XXI. and XXII. contain an interesting account of the morbid phenomena of the special senses, into which, however, our space will not allow us to enter.

The last chapter is on the "General Principles of Cerebral Patho-

* "Diagnosicated," we should say; but the strange verb "to diagnose," is now in continual use among medical writers.

logy, Diagnosis, Treatment, and Prophylaxis." In the consideration of these subjects, our author has been carried beyond the proposed limits of his present work. We do not know that we need notice this concluding portion of it, further than to mention that, on the morbid anatomy of insane cases, Dr. Winslow seems to agree in general with the best observers, and, like them, acknowledges the frequent absence of any appearance which can throw even the smallest light on the mental disorder.

We have read Dr. Winslow's work with pleasure. It contains an immense mass of information, derived from various sources, and a great many judicious practical remarks, evidencing the large experience of the author. What we should be disposed to cavil at, is the style in which it is written, and which is here and there both redundant and inaccurate. In spite of this, however, the book reads very pleasantly. It affords some examples of good, and even eloquent composition, so that the defects of other passages are probably more attributable to carelessness, than to want of literary power.

REVIEW X.

The Physiology of Common Life. By GEORGE HENRY LEWES, Author of 'Sea-side Studies,' 'Life of Goethe,' &c. In Two Volumes. —*Edinburgh and London*, 1859-60. Post 8vo, pp. 940.

MR. GEORGE HENRY LEWES has long been well known in the literary world as a writer of distinguished ability and remarkable versatility. There are few of our leading periodicals to which he has not been an esteemed contributor; and if his anonymous writings were collected, we believe that they would alike surprise us in regard to the range of subjects over which he has travelled, and the freshness and vigour he has shown in the treatment of every one. Of his acknowledged works, his 'Biographical History of Philosophy' (1845), though bearing evident marks of Comtist discipleship, and not even pretending to impartiality, has acquired for itself a considerable repute as a very readable and in some respects original book on a dry subject. 'The Exposition of the Principles of Comte's Philosophy,' however, which he subsequently (1853) gave to the world, has been less successful; partly because that philosophy is not to the taste of the most intelligent class of thinkers on this side of the Channel, and partly because the expositor, through a want of practical familiarity with the sciences from which he professed to draw his illustrations of his master's principles, was found to have committed so many blunders in his exposition, as seriously to weaken if not entirely to destroy the credit it might otherwise have obtained. In the interval between the appearance of these two works, Mr. Lewes's pursuits, so far as we can judge of them from their ostensible results, appear to have been mainly if not exclusively literary. In 1846 he published a work on 'The Spanish Drama: Lope de Vega and Calderon.' In 1847 he produced 'Ranthorpe: a Tale;' and in 1848 a regular three-volume novel, en-