M I N D

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY.

I.—MR. JAMES WARD'S "PSYCHOLOGY".¹

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IT had been known for some time that Mr. James Ward would contribute to the *Encyclopædia Britannica* the important article "Psychology"; and the expectations formed of it were very high. Allowance being made for the limited space, these expectations have been amply justified. The thorough knowledge of previous works, the freshness of the handling, the never failing acuteness, the light thrown upon many of the dark places of mental science,—constitute the work a signal achievement of philosophical ability. Much that belongs to a full exposition is necessarily omitted; and the problems commonly called 'philosophical' and also 'metaphysical,' are not comprised. The work has the rare merit of being Psychology, and nothing but Psychology. It is nearly complete as regards fundamental problems, and the ultimate analysis of the distinctive properties of mind: a densely-packed dissertation, abounding in clear, though brief, indications of the author's mode of solving the long-standing difficulties of our mental constitution.

Of course, the starting-point is the definition of Mind,

¹ *Encyclopædia Britannica*, xx., 37-85.

which must be at best provisional at the outset. Mr. Ward, in his first section, "The Standpoint of Psychology," proceeds by remarking first on the contrast of Internal and External, which is fallacious from the failure of space-relations in speaking of the mind as compared with the body. This he indicates as clearly as could be done, without anticipating a difficult problem. The second contrast—Mental and Material—he also disposes of with equal justice. He does not, for some reason, avail himself of an enumeration of physical properties—Extension, Resistance, and so on—to lead up to the ambiguous borderland of matter and mind; but he allows us to feel at once that the transcendental question of an external world must be reckoned with, if not satisfactorily disposed of, in order to make this contrast the basis of a definition. His own definition turns upon the word 'individualistic'; which is not to define by subject-matter, but by the standpoint for viewing our experience. His real definition for expository purposes consists in enumerating the ultimate constituents of mind, very much as is done by everybody in the present day.

Leaving the definition, we are invited to discuss the "General Analysis of Mind; its Ultimate Constituents". There cannot be less than three, as in the propositions—I feel somehow, I know something, I do something. But now—who is 'I'. Must there not be an entity distinct from feeling, knowing and doing, and having a common relation to all the three? On this point Mr. Ward is very decided. Everything mental must be referred to a Self; something of the nature of the pure Ego of Kant, which he opposed to the empirical Ego. Previous attempts to extricate the subject are severely criticised in their order. The nature of such criticism will be appreciated if we take up the first of them.

According to Hume, the mind or soul is simply "the name for the series of mental phenomena which make up an individual mind". But as we undoubtedly are self-conscious beings, that is, are aware of what happens to us as recipients of impressions, and affected in various ways, how can a series be aware of itself? Agent and patient are never together in the same act. Knowing and known must be different.

As to "a series of states being aware of itself," I confess I see no insurmountable difficulty. It may be a fact, or not a fact; it may be a very clumsy expression for what it is applied to; but it is neither paradox nor self-contradiction. A "series" merely contradicts an individual, or it may be

two or more individuals as co-existing; but that is too general to exclude the possibility of self-knowledge. It certainly does not bring the property of self-knowledge into the foreground, which, however, is not the same as denying it. An algebraic series might know itself, without any contradiction: the only thing against it is the want of evidence of fact. So, again, the word "state" is equally guiltless of denying self-knowledge; its fault is that it is so general as hardly to deny anything.

We have undoubtedly got into the way of describing our mental furniture by a verb whose grammatical subject is 'I' or 'We'. Is this merely figurative, or is it the one and only way of stating the phenomena? If it is a figure, the figure may change; if it is more than a figure, if it is the only adequate description of the situation, it certainly commits us to Mr. Ward's conclusion that there is a subject more or less different from the acts of knowing, feeling and acting.

I am not, however, convinced of the absolute, indefeasible necessity of adopting this form of language. In speaking of our mental energies, we can hardly avoid some sort of personification; at least, we find it a convenience and a facility to have a something 'in the chair,' through whom the actions and re-actions of the mind can take place. But what the chairman is to be in his own independent character, is not so easy to settle. One quality of the subject, which Mr. Ward lays great stress upon, is re-active attention, by which the mere physical intensity of sensation is heightened, other things remaining the same. But, as we proceed, we find the properties of the Subject gradually extended, until in the final formula for the ultimate constituents of mind, it absorbs all the three elementary properties—cognition, feeling and conation—and leaves only sensory and motor presentations, or what we should call 'sensation,' were it not that the element of feeling is withdrawn.

It is this final aggrandisement of the Subject that staggers me. In fact, it is the whole mind, with the exception of the first impressions of sense considered purely as elements of knowledge. The active verb 'I feel' is not analysed into a subject that feels and a state of pleasure or pain. But the total capacities of the mind, in respect of feelings, will and the higher elaboration of knowledge, make a Subject, to which our first impressions of the object-world constitute the object. It is only with knowledge that the division into the knowing and the known is imperative, on pain of self-contradiction.

But Mr. Ward does not seem to me to hold steadily by the Subject, as thus made up. Immediately after giving his tabular scheme, he says that "reproduction, association, agreement, difference, and all varieties of thinking and acting, are to be explained by the laws pertaining to ideas or presentations, leaving to the Subject the one power of variously distributing that attention upon which the intensity of a sensation in part depends". Again he gives us three irreducible facts—attention, feeling, and objects or presentations—the two first being subject. He admits that it looks paradoxical to say that we have no knowledge but of presentations; and replies that attention and feeling are known indirectly by their effects upon presentations, while the subject *quod* subject cannot be presented.

Now, it is our duty to receive any suggestions calculated to improve our nomenclature of the ultimate facts of mind. I accept the doctrine of the Subject in the meantime, with certain provisos. One is that it shall not be a nucleus and hiding-place of mysticism; another, that I may take it up and put it down as may seem convenient. I admit, however, that this last begs the question at issue, namely, whether it is any more than a verbal convenience, or useful fiction. Yet, I do not see any insuperable difficulty in making the mind the collective 'Ego,' when Mr. Ward admits that the three facts, Feeling, Conation, Cognition, include everything. Kant's pure Ego would seem to be a much more attenuated article than Mr. Ward's, which includes the whole of Attention, the whole of Feeling, and a somewhat uncertain share of Cognition.

I do not find that, in the later disquisitions on Feeling and Will, much is made of the circumstance that these two go far to make up the subject, to which all knowledge from the outer world is addressed. At the same time, I am aware that the recognition of Subject in some such way as here proposed will be productive of comfort to many persons.

Mr. Ward's next important innovation in the treatment of fundamentals is his mode of expressing the unity of consciousness by the term "continuum," as a substitute for the old designations—train, series, sequence, transition. He thinks that by the usual modes, the discreteness of the successive individual presentations is made too much of, and the continuity too little. He argues that a mental succession must be treated as a whole, for two reasons. The first is grounded on fact, namely, that special attention to any single member diminishes the intensity of presentation of the rest, while the recurrence of one by association entails the re-presenta-

tion of the other. The second is a matter of hypothesis, which is, that the distinctness of the separate members of our mental trains grew out of a process of differentiation from a primitive homogeneous current.

Now it is obvious that our language must provide for both the separateness and the unity or continuity of the stream of thought. Yet my fear is that "continuum" rather inclines us too much to the other extreme. Moreover, I am not aware of any erroneous tendencies due to the previous phraseology; at all events, I think it could be used without implying any dangerous amount of independence among the terms of mental succession. A train of impressions, presentations, ideas, may have any amount of coherence and dependence, that we may choose to assign; while the word does not sink the circumstance of plurality. That the successive members of a train should be regarded as parts of one whole, is not only unnecessary but misleading. The idea of part and whole is extended beyond ordinary usage; in the same way that 'redintegration' expresses too much as a name for reproduction by means of association. Except as a variety of expression suitable on occasions when the continuity of a series of states has to be emphatically set forth, I am not convinced of the need for this innovation. The hypothesis of differentiation will come up again.

Before finishing his survey of fundamentals, Mr. Ward discusses particularly the motor presentations or movements; and connects with the discussion the germs or beginnings of Conation or Action. We are here at once in the very heart of abstruse psychological theory. It is better for us, however, in our review, to pass on till the handling of the will is given in all its completeness. We shall therefore consider that the fundamentals have been given, and proceed to the detailed and systematic working out.

The commencing topic is "Theory of Presentations," and this is followed by related matters under the head of Cognition, as Sensation and Movement, Perception, Ideation or Imagination, Association. Feeling is in abeyance throughout.

The starting-point is Differentiation from a primary homogeneous continuum. "Psychologists have usually represented mental advance as consisting fundamentally in the combination and re-combination of various elementary units, the so-called sensations and primitive movements, or, in other words, in a species of mental chemistry." Not altogether without reason, as it seems to me. Our education from first to last takes principally the form of adding unit to unit,

under the retentive or adhesive attribute of our nature, with which we are so marvellously gifted ; and any other process of development is quite secondary in comparison. If we add the great extension of our resources by similarity, or transferring old adhesions to new connexions, I think there is comparatively little left to correspond to a process of differentiation. There is indeed something, and that something is, also of importance, namely, improvement in our powers of discrimination. Even our primary sensibility to differences of colour, or tone, can be cultivated, as is generally believed ; and we may, if we please, call this "differentiation of a continuum". To take Mr. Ward's example, the steel-worker sees half-a-dozen tints, where others see only a uniform glow. It is to my mind sufficient to describe this as the education or cultivation of a difference. I see nothing gained by stating it otherwise. Every new shade of difference is a new presentation. If I were to use the word "differentiating" I would not couple it with a continuum, but with a uniform effect: continuity, in the meaning of sequence, has no relevance.

With many of Mr. Ward's statements as to the facts of our presentations I thoroughly agree. I perfectly admit that what we usually call a sensation of one of the senses does not typify an elementary presentation. I also admit what he says as to one circumstance in the effect of repetition upon our sensations, namely, when they are complex, as from a flower, to make us more and more cognisant of the details. But when the sensation is simple, as the colour of gold, or when the details of a complex sensation have been mastered, repetition has the effect of deepening the impression on the memory and nothing else.

An interesting discussion follows on "latent mental modifications," which the author transforms into a doctrine of "sub-consciousness," all which I think happy. Our consciousness at any moment can be distinguished into a centre or focus of attention, and a wider field, over which attention may range so as to shift the focus from one moment to another. Outside this field are presentations just out of consciousness, and ready to be brought in by the slightest accessions of relative intensity which may come over them, even though they are not in the field. These are "sub-conscious" states, and the designation is a useful addition to our nomenclature. We have never, I think, taken sufficient notice of the multitude of *recent* impressions, that are a power in our minds, from their readiness to appear in consciousness again and again, and which serve as guides to immediate action in our

numerous everyday requirements. While many of them serve the purposes of the hour and pass out of view for ever, some are on the way to become permanent possessions of the mind : all our fixed recollections must needs pass through this stage.

Next follows the thorny subject of the Law of Relativity, against which in its unqualified sense Mr. Ward advances various objections, some of them exceedingly cogent. That transition or difference is a commanding element of our consciousness is shown in numerous instances : passing from cold to heat, dark to light, down to up, weakness to power, fear to security, poverty to wealth, familiarity to surprise. The practical bearing of such cases is this : a present state affects us only with reference to a prior ; the hand immersed in water at 60° may have a very different actual sensation according to its previous contact. Taken out of water at 40° the sensation will be warmth, out of 90° it will be coldness. So with light : going out of a bright light into a comparative shade we at first consider ourselves in total darkness ; as the previous impression dies away, we begin to see objects more and more clearly. Animals living in an even temperature never have any sensation of heat or cold. The pressure of the air is unfelt by us until we change its degree. Mr. Ward remarks, what will not be denied, that the transition may be from a neutral temperature ; but that makes no difference to the principle of change. The obstacle to the universality of the principle arises when we pass from difference of intensity to difference of *quality* in the same class of sensations, as sweet and bitter in taste, or red and blue in colour. Taking degrees of sweetness, a present sweet might seem different according to its preceding sensation, but it has a certain fixity of character under every possible antecedent ; there is a limitation to the changes that relativity can induce. The previous state does not entirely make it, and yet operates to modify it. So with colours. Red has an absolute character, whether preceded by light, dark, blue, yellow. Nevertheless there is a certain slight variation of quality, according to the previous state, as might be shown in the judgment of the exact shade. Probably the permanent image of a given red is altered by a large experience of colours, with which it has to be brought into contrast from time to time, while logically its meaning is increased by the number of exclusions or negations corresponding to its affirmation. Mr. Ward further puts the case of sensations of different senses, where the relativity is still more remote, although doubt-

less exercising some power. To a being with only one sense, the experience of sensations of that sense would not be exactly the same as to us, who bring five senses into comparison.

On the whole, I am quite disposed to acquiesce in Mr. Ward's conclusion, that while there is no unalterably fixed unit in sensations, the mutual relations of impressions are not everything. I am concerned only to uphold certain positions that constantly meet us in practice, as well as in theory. Thus, (1) change of impression is essential to consciousness of any kind, and the intensity of the consciousness is determined by the amount or interval of the change,—a matter of the greatest moment in the question as to conscious intensity, for which the comprehensive title is now to be Attention. (2) We cannot assign the consciousness due to any present stimulus without taking account of the state of mind previous, innumerable fallacies of judgment being the consequence of overlooking this principle. Among important applications of the general law is this: a term or quality has no meaning till we have experienced some opposite to it, if only a change in degree. Our first parents did not at first know the meaning of obedience. The Australians, who never had a stimulant until the British occupation of their territory, did not know that they were temperate; those that now take the pledge understand it.

Under the head "Sensation and Movement" there is first the inquiry as to whether qualitative difference in sensation is not resolvable into variety in the arrangement and intensity of the aggregation of primitive homogeneous units. There is much to be said for this as an interesting speculation. Another point urged is that all possible sensations of colour, tone, temperature constitute groups of qualitative continua. This applies to cases where the changes are made by imperceptible gradations; while the transitions that are in their nature abrupt, as the change from a smell to a taste, or from sweet to bitter, constitute a distinct class. The hypothetical explanation of the last is a higher degree of complexity.

As regards movements and motor presentations, the want of qualitative difference is notable. Mr. Ward divides them into two classes—motor presentations proper, involving feeling of muscular effort, and auxilio-motor, due to the straining of tendons, stretching of the skin, &c. He says nothing of the sensibility due to the afferent nerve-fibres in muscle, which are not there for nothing. Nor does he either affirm or deny the position that the motor currents are

accompanied with consciousness. Indeed his references to the physical side of mental facts seem somewhat capricious, his tendency, on the whole, being to discount it as an aid to psychical explanation.

"Perception" introduces us to various subtle disquisitions. First, as to its meaning. For one thing, it is an advance upon differentiation, by supposing integration at work. For another thing, it connects sensations with movements in the way of purposive action. The presentation-continuum would not be knowledge but for the intervention of controlling movements. This, however, is the problem of the will, and I must reserve it and take what belongs to perception in the more purely intellectual definition.

Three meanings emerge. First, there is recognition, by assimilation, or the more or less definite revival of the residua of former resembling presentations. This is the first employment of the recovery of the past by similarity. We begin with difference; repetition follows, and we assimilate without at first knowing it. "Assimilation involves retentiveness and differentiation, and prepares the way for re-presentation; but in itself there is no confronting the new with the old, no determination of likeness, and no subsequent classification." At this stage we are to beware of speaking of the reproduction of past sensations; there is as yet no individuality, and therefore no reproduction. There is simply an unconscious fusion of the repeated impressions, by which their character is advanced above the first stage of mere differentiation; which, however, is a step towards perception.

The second meaning is something much higher. Perception is the localisation of impressions, the referring of them to a part of the surface of the body or to some foreign body beyond. This is the problem of the origin of our notion of Space, and on that problem we must here enter, taking due care to separate space in the abstract from concrete spatial experience,—what Hamilton called the empirical notion of space, which the most thorough-going *à priori* philosopher must allow to be a matter for resolution or analysis.

Empirical psychologists, by starting with the simultaneous plurality of sensations, first in touch, and afterwards in sight, and by a copious employment of the resources of movement and of muscular resistance and freedom, have hitherto supposed that they account for all that there is in our notion of space or extension. Mr. Ward says, No. If we had only these to depend upon, we should go down to our graves with our intellects spaceless. What then is lacking? These two things:—

(1) The varying sense of the massiveness of sensations, spoken of by Mr. Ward under the new coinage "Extensivity". An increase in the mass affects us differently from an increase in the intensity. Putting the finger alone into hot water and then the whole hand increases the mass of sensibility, and we are aware of the increase; and in this difference we have the beginning, or basis of operations, of the notion of space.

(2) The existence of Local Signs in different parts of the body, as suggested by Lotze, and elaborated by Wundt. That is to say, underneath the apparent identity of touches in different parts of the skin there are latent differences that operate in making us feel that repetition or plurality cannot be on the same spot.

A word upon each of these hypotheses. The importance of massiveness, as going along with simultaneous plurality, may be readily admitted. A single contact on the tip of the finger proves nothing, a double contact essentially requires a change of spot, and a multiplicity of contacts is compatible only with that expansion of surface that is otherwise revealed by greater massiveness, the consequence of a wider contact. But I am inclined to think that the massiveness operates as a basis of plurality, and somehow in concurrence with that, and not from any suggestiveness in itself.

The existence of distinguishable signs all over the body, even without conscious difference, has always seemed to me to be something of a paradox, notwithstanding their acceptance by able psychologists. There is a remarkable sameness of quality in our tactile feelings on every part of the skin; so much so that we scarcely ever in practice remark any difference except in their locality. When we are put to it, we must admit that there are anatomical grounds for variety, as Mr. Ward points out: the difference of the underlying parts—in one place bone, in another tendon, in a third fatty tissue—should make a qualitative difference of sensation; and by attending to such differences we should know whether a contact is on a hard part or a soft, on the upper surface of the foot or the heel. But not to speak of the substantial sameness of the two sides of the body, there are large portions of the skin with identical subjacent parts; and our sense of local differences would appear to be as good where the identity is most complete as where it is most wanting.

Although, in this great question, it is right to begin with Touch, we must end with Sight; for it is visible extension that is our standing mental representation of space. Now, take the starry sky, where one star differs from another in

local colouring. Let us suppose that the heavens were made up of stars without such difference: would anyone in that case contend that our visible conception of space must prove abortive?

Mr. Ward handles with great success the play of movements in developing our notion of space. In all this he is on secure ground, and I cannot help thinking that, without either of his two subtleties of "extensity" and local signs, the capabilities of movement, working upon simultaneous plurality, would carry him to his journey's end.

The third meaning of Perception is a great meaning—the Intuition of Reality or Actuality. Here he adverts very properly to our sense of resistance in giving us 'body,' and the fixity of order of some impressions, as connected with external reality; while he blames empirical psychologists for not considering that the point of fixed order is essential. He puts it to those that make so much of the law of similarity, why it is that this does not override contiguity, and make the white of snow lead to a classing of whites, instead of a grouping of the associated qualities of coldness and powdery softness. Then comes the question of unity in the midst of change, and that leads to another—continuity in time, or *persistence*. For this the first datum is our body, which we never part with, whereby we are prepared for regarding the re-appearance of other bodies, after absence, as the continuance of the same, and not the appearance of others resembling. And finally, the quality of physical solidity, affecting our sense of resistance, is the groundwork of all substantiality, continuance and invariability.

This concludes Perception. Next comes "Imagination or Ideation," as rising above perception: The handling of this large subject is a good test of psychological ability. Starting from Hume's very imperfect account of the distinction between impressions and images, our author first warns us that there are no ideas answering to simple or isolated impressions, as redness by itself; what are revived in memory and imagination are *percepts*, not unlocalised sensations and movements. Our idea of red is some red thing originally a percept. Ideas are the material of association proper. There is a grouping of distinct elements in the percept: this Mr. Ward prefers to call "complication," although of course he would not deny that it involves the retentive power of the mind.

The criticism of the weak points of Hume's distinction between presentations and images as consisting in superior force and liveliness is just and well-put. However faint a primary impression may be it has a steadiness and fixity all

its own, besides the localisation accompanying every percept, whereby each excludes every other for the time. Here, however, arises a nice question. We can overlay a percept with an idea of a contradictory nature. We can look at a blue starry sky and imagine a gorgeous sunset, two things incompatible in actual perception. This shows, Mr. Ward thinks, that images float in a level of their own, quite above the presentation-continuum, and to this independent flux he would give the name of a "representation- or memory-continuum," which he justifies later on.

So much for the difference of presentation and image ; now for the connexion of the two. It is obvious that the presentation is the source of the image, and we are justified in assuming a transition from the one to the other. There is an intermediate stage, called by Fechner the memory-after-image, being the trace left by an impression after it has ceased. This may easily be distinguished from morbid persistence in a sensation itself, which has its own characters and contributes nothing to the formation of images or ideas.

The evolving of the full-fledged image or idea from the memory-image is a stiff business, and not without uncertainties. The memory-image has already lost the essential characters of the impression, and especially the stubborn resistance to superposition of impressions ; for several may be in the field of consciousness together. It has made its mark as a thing persisting apart from its original presentation, and what we need farther is a confirmation and deepening of this by subsequent renewals. What happens, then, on a second presentation, which also leaves its memory-image to fuse with the first ? Here Mr. Ward speaks in metaphors that are not quite clear. The revival of the image is not another birth, whatever that may mean. There is, in the case of an identical image, assimilation or recognition, which precludes individual distinctness. If the second impression occurred in identical surroundings there would be no sense of distinctness ; when the surroundings are changed there is sense of distinctness ; nevertheless, repetition brings confirmation, being the case of similarity working in diversity. On the whole I call this an extremely laboured attempt to bring out the simple result of confirmation of images by repeated occurrence, there being more or less of identity in their accompaniments.

The author is now brought face to face with "Mental Association," although his treatment is avowedly cursory. He appears to join the small company that would reduce the two principles of Contiguity and Similarity to one.

That is to say, there is such a thing as revival by similarity, but this is not a process of association. If he means that 'association' is not an apt word for the suggestion of similars, I quite agree with him. That there is nothing to be said, however, as to the workings of Similarity as such, I could not admit without a degree of self-stultification that I am not yet equal to. Meantime, I must endeavour to follow his account of his one recognised law of association—Contiguity. He re-introduces his memory-continuum to get out of the enormous difficulty of conceiving presentations originally distinct and isolated becoming eventually linked together. For contiguity he would substitute "continuity," and inquire into the process of integration, in all which I can see only a change of terms for the same inevitable fact: *a, b, c, d*, began by being isolated presentations, they end by being linked or connected into a series.

Still there are considerations of some subtlety in the matter. Take, first, succession. Why does not this association work backwards? This, I should say, is really an ultimate fact: the order of reproduction is the order of original occurrence, or the order in which they were originally attended to. We could learn the alphabet backward, but only by repeating it backwards as often as forwards. Next as to the simultaneous. This can be resolved into succession, seeing that to take in a complicated subject we must cross and recross the field of view until the parts cohere by being made to succeed each other in turn.

So far we are supposing the memory of one continuous and homogeneous scene—as a fixed row of houses, a strain of music, or a verbal sequence. When, to use Mr. Ward's language, we have portions of different continua—*e.g.*, sights and sounds—or non-adjacent parts of the same, the integration or association makes a new continuum or train, in which the two remote things are adjacent parts; in fact, are brought together from a distance, and rendered continuous. Here the movements of attention are particularly involved; to unite a house with a name we must attend mentally first to the one, and then to the other; and the influences that put attention in motion are then all-important. Interest is the main stimulus, but something may be done at first by mere intensity; the roar of a cannon and the flash at its mouth are doubtless associated by the mere intensity of the primary impressions. But the movements of attention, forming the connexion between one representation and another in the memory-train, are important as constituting "temporal signs," by which are meant marks of the order of

occurrence of images. They correspond to local signs in extended objects. We shall hear more of them afterwards.

Such being the "Memory-continuum," the next step is to form out of it an ideational continuum, or rather many such. The meaning is that the literality of the memory-train is broken in upon, except in idiots, by the collision of different trains, during which some parts are strengthened and others left to die out for want of the nourishment that renewal gives. Through this joint effect of obliviscence and reduplication we are provided with a flow (or many flows) of ideas distinct from the memory-train, and more or less suited for our intellectual and volitional manipulation.

The author then touches upon the interference due to conflict of presentations and mental currents; objecting to the title 'obstructive association,' but admitting the fact. He next considers the moot point of drawing the line between Memory and Imagination, and is I think correct in assigning as the two characteristics of memory proper (1) concreteness or circumstantiality, and (2) localisation in the past, the last being the more essential. The representation of one's past self as agent or patient is also a concurring circumstance, but not essential.

From memory he proceeds to Expectation, as the natural sequel. After a series of events has been once experienced, we instinctively anticipate its recurrence, provided the memory-train is intact. At this point, however, the author widens the inquiry into an examination of the distinction of present, past and future. The present is the real or actual, and is determined by our primary presentations, as already seen. But we do not know the present as present until it is put side by side with both memories and expectations. An event expected has an interest altogether its own, and puts us into a more active attitude in consequence. The words 'expect,' 'await,' 'anticipate,' all point to an attitude of mind, wholly different from the attitude towards present or past. To know a present, as present, we must have, in the consciousness along with it, both memories and expectations, which are of course in the form of ideas or representations. The difference between memory and expectation is, as already said, a difference of attitude and interest: both are distinguishable from the present as being ideal. With a fixed series of events, ABCDE, we know where we are by one being in full actuality, as C, while AB and DE are in ideality; and we know that AB are behind, when in moving on to D, the ideas of AB are fading, and the idea of E rising in intensity, while also engaging the expectation-attitude.

But how do we come by our knowledge of Succession and Duration, in all the fulness of their completed meaning? Past, present and future, as above figured, are in the consciousness simultaneously, and are distinguished only as real and ideal. Succession is, in fact, a mode of interpreting or stating a peculiar mixture of the co-existent: in the co-existent is a peculiar experience that we may call time-perspective; but even that is not first conceived as succession. For the development of this idea we must fall back on the so-called temporal signs, that is, the residual traces of the *movements of attention* in passing from one event to another in the series of presentations and their re-presentations. These signs are aided by the progressive variation in both intensity and distinctness as we pass along the perspective one way or the other. The variations by themselves would not suffice, as we might confound the faintness arising from what is remote with the faintness of a near but feeble original. The temporal signs, however, save us from this mistake.

As to our subjective estimate of Duration, there are various elements to be considered. When pleasure or pain are connected with occurrences, the estimate of duration is most delusive, and Mr. Ward enters minutely into the psychology of this effect, belonging as it does to the general theory of pleasure and pain; and I believe his explanation is both ingenious and just. The estimate of duration in things that are indifferent has been subjected to experiment with more or less definite results. It is doubtless a result of education to take the proper measure of the time occupied by an event; and our education has for its basis the standards provided by our artificial time-measures.

Equally subtle is the author's treatment of the question whether our notion of time remains discrete or becomes wholly continuous. The mind begins by hops or leaps, but at last seems to acquire the feeling or idea of continuity, with evanescent breaks, like the wheel of Savart, when its speed is increased to the pace of fusion of the separate beats.

In all that regards the ideas and feelings of succession and duration, the German writers have been more assiduous students than the English, and Mr. Ward has added his own modifications to the German results.

Before going on to the higher developments of intelligence, the author pauses to review the emotional and active constituents of mind in their more elementary phases. And first of "Feeling," that is, Pleasure and Pain.

Starting from the broad generalisation—as an account of

psychical or mental life—that receptive states lead through feeling to active states, and that presentations yielding neither pleasure nor pain meet with no responsive action, we are led to inquire whether the contrast of pleasure and pain has any corresponding contrast in the causes of feeling, on the one hand, and in the manifestations or effects on the other.

To begin with the causes. In the presentations themselves, or outward agencies of pleasure and pain respectively, we find no common characters; the peculiarities must therefore be in relation to the conscious subject. Now one prominent circumstance in relation is, that pleasure furthers life, and pain impedes or destroys it: the so-called law of Self-conservation. Mr. Ward admits that the law is conformable to facts, but rejects it as being too teleological for application. I doubt if he is right here. The teleology need not be introduced into the inquiry at all, while the law possesses the very condition that he insists on, namely, to assign a mark present in all pleasurable presentations and wanting in all painful. If self-conservation stops short of this condition, it is because no single principle will explain the whole of the phenomena. Indeed, any different principle must be continually liable to qualification according to the general state of vitality of the system; and, in point of fact, Mr. Ward is unable to exclude it in the exemplification of his own theory.

With a view to the inquiry, he gives a five-fold classification of Feelings. The first comprises the simple sensations and movements; the former more particularly. In these sensations, the pleasurable or painful effect varies with intensity, quality, frequency and duration. The leading fact is, however, intensity, into which quality may probably be resolved. With regard to movements, it is evident that pleasure depends solely upon intensity; a certain amount of exertion being always agreeable, and excess disagreeable. Of some of our sensations, as light and sound, the same can be said: they are always agreeable up to a certain point of intensity. When we pass to taste and smell, we encounter such cases as sweet and bitter tastes, which are pleasant or painful in all degrees. Mr. Ward would resolve these into hereditary associations with intensity. A bitter sensation may be the trace of organic pains originally accompanying a too violent stimulation of the taste, and a sweet the opposite. The hypothesis is admissible enough, but one would think it should have been preceded by a discussion of the organic pains and pleasures themselves. Instead of accepting as a

simple and ultimate fact the principle of intensity, Mr. Ward thinks it needful to explain the limitations of the pleasurable degree by two considerations. The one is that attention shall be forthcoming adequate to the intensity. I doubt if this can be called a better explanation than merely saying that the forces (nervous and other) are limited and liable to exhaustion, whence pain follows, which is the law of self-conservation over again. The other explanatory circumstance is that a pleasurable quality is one that enlarges the field of consciousness; in other words, connects itself with exuberant spirits, buoyancy and animation: which is to fall back again on the organic state, as conditioned by physical vigour.

The dependence of pleasure on duration and frequency is more easy to account for.

The second class of feelings comprises the combinations of simple sensations and movements, or the lower æsthetic feelings of harmony and discord. On these the author gives probably everything that can be advanced in our present knowledge.

The third class carries us into the region of intellect, and comprises the free or obstructed flow of ideas. These feelings are about the easiest of any to explain; yet in them too we cannot dispense with a reference to the economy of vital power. The fourth class takes in the higher æsthetic feelings, such as unity in variety, where the principle of economy is largely involved; likewise the wide-ranging associations of agreeable or disagreeable effects. There is no serious difficulty to surmount in this region.

The author's fifth and last class he terms feelings related to self, or the egoistic and altruistic feelings. These are the pleasures of self-complacency and self-satisfaction, and the pains of disappointment and failure. Instead of plunging into these complications, which need a much more elaborate handling, I could have wished him to discuss such leading emotions as fear, love, anger; these being obviously more elementary than what he dwells upon.

The general doctrine that there is pleasure according as a maximum of attention is effectively exercised, is ingeniously applied to the seemingly exceptional case of sleepiness. Here the field of consciousness is contracting, it is true, but then attention or activity is contracting still more, while the smallest attempt to arouse it brings on the acute pain of conflict. A much simpler explanation could be plausibly maintained.

The author faces another great and standing controversy

regarding pleasure, the contrast of the higher and the lower pleasures. He solves this psychologically, by urging that to advance to the level of life wherein greater pleasure on the whole is attainable, is a real rise from a lower to a higher state. This of course will not satisfy the parties to the ethical controversy, but it is not the less just from the point of view of pure psychology. The phrase for the difference is not 'dignity,' but economy or efficiency.

Great as are the subtleties connected with Feeling, greater remain in the nature and growth of the Will treated under the head of "Emotional and Conative Action". I must here take into account the earlier treatment of Motor Presentations (p. 42), where the linking of action with feeling is considered. For an absolute commencement of the bond that unites feeling with purposive movements, we must set aside both reflex action and sensori-motor action, as being results of some prior arrangements more typical of the will itself. The real starting-point, our author thinks, is the wave of emotional diffusion; the spontaneity of isolated movements he rejects as having no sufficient evidence, and as making movement precede feeling instead of following it, which he considers an absurdity. Without stopping to debate these positions, I must look at the author's attempt to define the primary emotional wave. He is aware that the diffusion arising under our developed emotions, such as anger, includes Darwin's 'serviceable associated habits,' and therefore grew out of will, instead of preceding it; thus the combative attitude is a clear volitional after-growth. Darwin's third principle of emotional expression is the nearest approach to a primitive outburst—namely, certain actions that are the direct result of the constitution of the nervous system, under which he would include the movements expressive of joy and grief, which in some form or other are the simplest of conceivable states of emotion. Proceeding on this basis, Mr. Ward enumerates, as primitive movements of joy, dancing, clapping the hands and meaningless laughter; such actions not only belong to the pleasurable wave, but increase the pleasure. This is something. Again, on the side of pain, there is a variety of contorted and violent movements, in themselves painful, but operating to diminish the original pain more than they add to it, being, on the whole, soothing and salutary. But now, as regards our volitional progress, there is this great difference between the two opposite modes of feeling. The movements under pleasure are mere exuberance, or the overflow of good spirits, and are, so to speak, playful and purposeless. Pain, on the

contrary, forces on our attempts to escape the causes, and is the most urgent schoolmaster in our voluntary education. The author endeavours to minimise the counter tendency of pleasure to prompt to its own continuance and increase. That stage in the gratification of appetite, when pain has ceased and pleasure is pursued up to point of satiety, he would regard as a later growth or consequence of the primary urgency of pain. This refinement, however, may be carried too far. Granting that the removal of pain must always possess the highest degree of urgency, yet there are numerous cases where, starting from a state of pure neutrality, we enter upon a taste of positive pleasure, and follow it up till it ceases to become pleasure. But for the discipline of pains in the distance, which accompany all considerable pleasures, I am disposed to believe that the pursuit of pleasure, as such, would be no less genuine and unmistakable than the avoidance and removal of pain.

Out of the diffusive movements of feeling, and the fundamental law that connects the relief of pain and the increase of pleasure with accidentally coinciding movements, the growth of the will has to be explained. The difficulties of bringing about these happy chance-coincidences are formidable, and the time demanded is correspondingly great. Mr. Ward thinks that natural selection, and the survival of the fittest, would come in to accelerate the process. Be this as it may, the subjective selection must follow its course by bringing about an association between lucky movements and the state of feeling that they favour.

After Will comes Desire, with its various problems, which are fairly grappled with. What makes desire first to arise, what constitutes its urgency, and wherein lies the difference between represented pleasures that give their own satisfaction and those that stimulate pursuit for the reality—all these matters are soluble by manipulating the various elements concerned: the power of the representation; the activities of the moment, and the bearing of these on the end; the operation of habit in weakening the sense of pleasure, and increasing the tendencies to action. On the whole, the author contends that the activity involved in desire is a question of pain in some sort, and not the following of pleasure.

The higher forms of "Intellection" are now entered upon. The difficult question of controlled and regulated thinking is first to be considered. Then comes the vast instrumentality of Language, which Mr. Ward illustrates with great success. No less good is the discussion of general ideas, hitherto

given too exclusively under the alternatives of Nominalism and Realism. I have not space to advert to what is characteristic in this portion, nor to follow the author's examination of the developed categories of Unity, Difference, Identity, Likeness, which he thinks have been hitherto derived in a too easy-going and slovenly fashion. Causality he also discusses, and under it Belief. A section on "Presentation of Self, Self-consciousness and Conduct" closes the treatise.

I will add nothing to the running criticism already bestowed, in the course of setting forth the chief positions, except to advert in a few words to the peculiar stress everywhere laid on Attention. The immense compass assigned to the word is somewhat discomposing. At a very early stage we are told that Attention is to cover what is commonly meant by *inattention*. When Daniel O'Connell was at the height of his repeal-agitation, he was warned by Sydney Smith that he might have to reason the point with that armed Aristotle, the Duke of Wellington. So we can imagine the response to this view of Attention by the commander-in-chief of the British Army, whose central word of discipline is thus tampered with. I make the fullest allowance for the need of a general word to express the reaction of the Subject upon presentations, &c., yet I doubt if the sum total of the influences that intensify impressions and promote their retention should be comprised under the one word "Attention". A still more general designation, such as 'mental *tension*' or 'conscious *intensity*,' would be desirable; while 'attention' could be reserved for special modes of intensification.

The operation of exercising control over the mental trains presents one of the most difficult of our psychological analyses. It has been discussed with very great acumen by Mr. Bradley in the last number of *MIND*; and I think his conclusions on the whole remarkably just. On the question, whether, in our voluntary control of the thoughts, there is always a muscular intervention (in an ideal transmutation), Mr. Bradley unintentionally misrepresents my published views on the point (see in particular, *The Emotions and the Will*, 3rd edit., p. 372). I do not regard muscular intervention as operative in all cases, and have expressly referred to the instance of attending to one instrument in an orchestra as demanding some other medium of selection. I will not here endeavour to classify all the forms of the intensifying influence, but will advert to one real distinction lying at the very root of our voluntary power. I mean the difference

between immediate and mediate interest; between the pleasure (or relief from pain) involved in the act itself, and the prospective pleasure or relief operating as a motive. The first is the voluntary impulse in its purest, most primitive and perennial aspect; to hug a pleasant idea is as purely instinctive and untaught as anything can be; the higher apparatus of the will—as expressed by resolution, deliberation, purpose—has no part in it. Now, we may undoubtedly apply the word 'attention' to this instinctive mode; but the process is more usually described by such words as 'attraction,' 'arrest,' 'fascination,' 'irresistible charm,' and so forth. It is in the second class of impulses, where a prospective motive is at work, that the word attention is most characteristically employed: the case of a thing that has no charms in itself, and where we are induced to dwell upon it by some extraneous or remote consideration. Such is 'Attention' in the school and in the army. As to the use that Mr. Ward makes of Attention in his theory of pleasure and pain, a much more lengthened consideration would be necessary than I can give to it here.

There is another point to consider before we bring forward a change in scientific nomenclature. We ought first to show that it is wanted, and next, take the measure of our own influence or persuasive power for getting it adopted. A multitude of conflicting renderings of well-known facts is an evil, although, it may be, a necessary evil. As regards the formidable enlargement of the sphere of meaning to be given to the word Attention, we certainly desiderate more reasons for the change than, as far as I am aware, have been as yet supplied.

Nevertheless, to speak of the paper as a whole, the author's handling of the topics he has overtaken will reward the most careful study. There is force in everything that he advances; and, for my own part, I have been always instructed, and often convinced, by the arguments in favour of his positions, whether new or old. The form of the treatise, as it now stands in the *Encyclopædia*, has obvious disadvantages. When the matters excluded by the narrow limits are filled in, when the illustration of the whole is duly expanded, and when, finally, the exposition of subtleties is transferred from *brevier* to *pica*, Mr. Ward will have produced a work entitled to a place among the masterpieces of the philosophy of the human mind.