SCIENCE:

A WEEKLY NEWSPAPER OF ALL THE ARTS AND SCIENCES.

PUBLISHED BY

N. D. C. HODGES,

874 BROADWAY, NEW YORK.

SUBSCRIPTIONS.—United States and Canada.....$3.50 a year.
Great Britain and Europe..... 4.50 a year.

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A RECENT ANALYSIS OF WILL.[1]

THE promise made by Professor Baldwin in the preface to his first "Handbook"[2] has been fulfilled. The expectation aroused by this promise has perhaps been more than gratified since in the "Psychology of Feeling and Will" we have the same rigorous scientific treatment which characterized the former volume, applied to subject matter which, for reasons now known to be suicidal, has been worked over for college text-books with far less care and satisfaction than the strictly intellectual operations. It must be a source of congratulation to teachers of psychology to know that we are now having given us year by year psychologies which deal with the stubborn complexities of mind from a standpoint that bids fair to give us soon, if it has not done so already, a veritable "New Psychology."

Taking the old method at its true worth and retaining the sum-total of valuable results it has given, it is still evident that the "natural science point of view" has been so fruitful in its construction of psychological data, has so modified old conceptions, has in fact so changed the whole face of psychological procedure, that nothing short of "New Psychology" can briefly characterize these consequences. The volumes of both James and Baldwin will, however, have their real value for teachers, not only as psychology, but as affording an ordered body of scientifically determined laws necessary for anything like fruitful philosophical construction. The data of philosophy must come from science as positive, and the scientific data given up by psychology are, it is clear, peculiarly valuable as a contribution to the conditions necessary for serious philosophizing. Rational interpretation, aided by "the judicious use of hypotheses," is necessary to complete the full survey of mind, but presupposes, if it is to be of genuine worth, previous empirical investigation. Upon such investigation is based "the possibility of a psychology, which is not a metaphysics, nor even a philosophy."

Written under this conception is Professor Baldwin's "Handbook." It is replete, however, with latent suggestions which take one immediately over into the philosophical field. Such suggestions when formally stated are to be found in the small print, which immediately follows the strictly psychological analysis and discussion.

Peculiarly rich in suggestion for ethical construction has seemed to me the author's discussion of "Will," and I desire, in brief review, to dissect out of the body of the analysis the facts which have ultimate bearing on the question of "Freedom." For whether solvable or insolvable in any ultimate sense on psychological grounds every one must admit that the weapons of analysis whereby the complex problem of "Free-Will" may be reduced to intelligible form are in the hands of psychology. Even if we reach no satisfactory solution, it is at least a gain to know clearly what the elements of the problem are. It is natural enough, therefore, that with every attempt to throw new light on the underlying elements of volition, the old sore of freedom should be reopened. As long as philosophy has life, an acknowledged fundamental question cannot remain passively unsettled; philosophy cannot be held in check by external prohibition; it moves with an inner life of its own.

Sidgwick recognizes this in his return to the question of freedom,[3] claiming, as he does, that, although "complete mutual understanding will never be reached until we have reached complete confutation of fundamental errors," yet "a diminution of the amount of misunderstanding . . . especially on fundamental points," is an end in itself worth striving for. What Professor Baldwin's discussion has accomplished in the interests of this desideratum of diminished misunderstanding, let us see.

Chapters xii. and xiii. discuss, under the general title of the "Motor Aspects of Sensuous Feeling," first, "the motor consciousness; second, the 'stimuli,' to involuntary movement." As a fundamental law of the motor consciousness we have stated what is called the law of mental dynamogenesis, viz., "that every state of consciousness tends to realize itself in an appropriate muscular movement." The general conclusion reached on the reactive consciousness is that this "consciousness, *per se*, is simply consciousness of nervous reactions and memories of such reactions or of their elements. As far as there is a consciousness of self in reflex attention, it is an objective felt self rather than a subjective feeling active self. Whatever ground may be found subsequently for such an active executive self, we find no such ground here" (pp. 293–4). This conclusion is corroborated by a reference to certain well-known hypnotic phenomena in which power of choice is wanting and the consciousness of the patient becomes entirely reactive.

Stimuli to involuntary movement are next analyzed and discussed. "By stimulus is meant the affective experience of any kind which tends to issue in conscious motor reaction" (p. 295). Such stimuli fall under one or the other of two great classes: (1) organic, (2) extra organic. In this connection (p. 204) is found the differentiation of stimuli as impulsive or instinctive. Sensuous impulse is "the original tendency of consciousness to express itself in motor terms as far as this tendency exists apart from particular stimulations of sense" (p. 307). On the other hand, "instincts are original tendencies of consciousness to express itself in motor terms in response to definite but generally complex stimula-

[1] "Handbook of Psychology: Feeling and Will," by James Mark Baldwin. Henry Holt & Co., New York.

[2] "Senses and Intellect."

[3] Mind, October, 1889.

tions of sense; i.e., they are inherited motor intuitions" (p. 311). Nor must it be forgotten that all these classes of stimuli have meaning for the reactive consciousness because they have a "feeling aspect." "An idea simply as an idea — if such could be realized — might not react in movement; but the simple presence of an idea in consciousness is itself a feeling, and only in as far as it affects us does it move us" (pp. 313–314). "Affects," therefore, is the expressive term to be applied to all stimuli to involuntary movement.

In chapter xiv., ideal feeling, in its motor aspects, is the subject of discussion. Here the stimuli have a characteristic wanting to those previously considered, viz., the element of intention. The "end foreseen" illuminates and directs consciousness in company with the ever-present stimulus of "interest." Professor Baldwin finds that "interest in an object," "emotional excitement," "idea-motor suggestion,"[1] "ideal pleasure and pain," are the general stimuli to voluntary movement. The genetic aspect of mental life — the organic connection of higher with lower in mental development—here finds illustration in the reappearance of "affects" as stimuli. In lines worth quoting we are told, that "the psychology which separates volition from reaction so sharply as to deny any influence upon the will to other stimuli than pictured ideas, is false. The conditions back of an act of choice are never limited to the alternatives between which the choice is made. There is beneath it all a dumb, unexpressed mass of affects — organic partially — felt tendencies outwards, which give coloring to the whole process" (pp. 319–320). This is interesting as a preliminary warning of the complexity to be met when we come to the fundamental problem of choice and its conditions; for it is complexity such as this which makes free-will the Gordian knot of moral philosophy. Analyze and elaborate what is known, as best we may, and there is yet left over a residuum of unreduced complexity sufficiently great to introduce a precarious element into our best results. To snatch certainty out of the hands of uncertainty, other considerations than those purely psychological may be necessary; it may be necessary, as in Professor James's case, to adopt a belief in freedom on ethical grounds. In the graphic language of James, "taking the risk of error on our head, we must project upon one of the alternative views the attribute of reality for us; we must so fill our mind with the idea of it that it becomes our settled creed."[2]

Passing by the analysis of "desire," with its ethical suggestions all along the line, we come to the author's definition of "motive," as "any influence whatever which tends to bring about voluntary action" (p. 332). Motives may be either ends or affects, while ends alone give definite lines of guidance where choice is made.

From the exploration of the springs of voluntary activity, the author passes to the nature of such activity, finding that it is always characterized by a feeling of consent or feeling of effort. All effort feeling is one of two kinds — either positive or negative: effort to do or effort not to do. Fiat of will is positive effort; neget, the negative. Three factors in the development of voluntary movement are stated: "(1) Voluntary attention to a presentation, which, in turn, stimulates a native muscular reaction; (2) voluntary attention to a presentation of movement, which stimulates the movement presented; (3) voluntary attention to an end for which a muscular reaction is a necessary means" (pp. 343–4). These come to light as a result of the analysis of the fiat and neget into their elements; and this examination gives ground for the important claim that "the entire question as to what volition is, is accordingly thrown back upon an investigation of the exercise of voluntary attention"[3] (p. 342).

Chapter xiii. introduces matter bearing from the very beginning more directly on the problem of freedom; the whole field is canvassed with a minuteness and comprehensiveness which makes the discussion a model of what psychological investigation should be. You feel at once that Professor Baldwin's mental constitution has no toleration for vague thinking, and that his style has a scientific sharpness about it that never admits of doubtful interpretation. The chapter throughout is characterized by a richness of ethical suggestion such as one rarely meets in text-books on psychology. Philosophers of Dr. Johnson's type, with their "we're free and there's an end on't," would learn not a little about the inner character of that freedom if they were willing to do the clear thinking which Baldwin's book makes possible.

Baldwin emphasizes with James[4] the absurdity of a conception of "motives" only too common among philosophical philistines. The conflict of motives is not a conflict between separate ideas with a distinct activity of their own, each exploding its own gun to compel submission from the others. Such a conception is worse than imaginary. "A motive is nothing in itself. It is only a name for a partial expression of the nature of the agent. Consequently motives can in no sense be considered as forces which expend their energies upon the will or which fight each other" (p. 353). Again, "how can they be conceived as separate entities contending in a theatre which is cold stone to all of them? Rather they are all vital elements in the functional synthesis of a living consciousness."

Another essential point is emphasized, namely, that when we penetrate to the inner nature of volition we find that it carries with it the act of attention (p. 351). This reminds one strongly of James's assertion that the real question of fact in the controversy on free-will relates to the "amount of effort of attention or consent" which could be given at any one time.[5] The role played by attention in deliberation and choice is of fundamental importance. Deliberation is a process of examination and comparison,— it is the searchlight of the mind illuminating the field of consciousness, bringing clearly into view alternative or incompatible desires,[6] and comparing their relative degrees of desirability prior to the act of choice which is the termination of the process: with choice the final fiat has gone forth, deliberation is at an end, and the deed is potentially done. "A resolve involves all the elements of a motor fiat except the word 'now.'"[7] Of the two great classes of motives, "affects" and "ends" involved in deliberation and choice, superior volitional worth is given to "ends." These are the more objective data before the eye of deliberation. "It is only by strengthening the influence of particular ends that effects enter." In fact, "what actual volition is concerned with is therefore ends, and ends only." If this be so, it is important to learn how an end passes into volition.

Baldwin's answer to this question is like Hodgson's.[8] The picturing of ends is a thinking process: it is an ordinary apperceptive act by which new elements are taken up into the old by a larger integration, the process being one of ab-

[1] cf. James's "Psychology," Vol. II., p. 522.
[2] "Psychology," Vol. II., p. 573.
[3] cf. James's "Psychology," Vol. II., p. 561.
[4] "Psychology," Vol. II., p. 569.
[5] "Psychology," Vol. II., p. 571.
[6] Mind, April, 1891, p. 170; "Free-Will: An Analysis," by Shadworth Hodgson.
[7] James, Vol. II., p. 561.
[8] April number of Mind, 1891, p. 171.

sorption and adjustment. "The attention moves throughout the series of elements, grasping, relating, retaining, selecting, and when the integration it effects swells and fills consciousness — that is the fiat" (p. 355). That is to say, the decisive point is reached, the rending strife is over, when the distracting character of the elements has been subdued, the unsettled claims satisfied, and the "attention gets its hold upon its integrated content as a grand related situation."

It is necessary to pin the attentive act down still closer. What can attention do in the matter of initiation of motives? Is attention unmotived? Is it independent of the internal and external conditions of endowment and environment? Professor Baldwin replies in the negative: an analysis of the two general classes of "apparent initiation of motive intensity"— cases of involuntary attention and cases of deliberation — renders an affirmative answer untenable. Strengthened intensity in the former cases is easily shown to be involuntary; in the latter, "as soon as any such preference comes in — any physical, mental, or emotional motive for wishing to intensify this particular alternative — then my choice is already made and I am fooling myself in thinking that I am reaching an unbiased decision."

Consequent upon these preliminaries comes the author's formal statement of the problem of freedom, in which he unfolds with great clearness of thought and transparency of expression the following four alternatives: (1) indeterminism, (2) external determinism, (3) immanent determinism, (4) freedom as self-expression. The contingent or indeterministic view, with its theory of unconditioned choice, meets with a very summary but warranted rejection. It is not only crudely unpsychological, but defeats the very end in whose interest it is projected; moral responsibility has the very ground cut from under its feet on any such theory; the conception of an agent whose voluntary expression involves moral judgment because he is agent, is emptied of all meaning. Professor Baldwin gives us here nothing new — nor was it necessary. This controversy has already been "thrashed out to the very last fragments of chaff."[1]

The external deterministic are all those who explain volition in terms of natural causality, and thus consider the problem of volition a problem in physical dynamics. "Motives are forces in reference to one another, effects in reference to the brain, in which they have their causal support; volition is the consciousness of the outcome of a conflict of forces" (p. 370). The objection to this theory is that it floats in the air. To give it weight, an assumption is necessary, which neither science nor philosophy can substantiate. The theory assumes the possibility of a continuous movement under natural causality across the physical into the mental world. Whatever may be believed as to a "uniform psychophysical connection," there is no warrant for assuming that consciousness is an epi-phenomenon. So, too, there is no legitimate ground for believing motives to be mere natural phenomena. Baldwin is as positive as Green, though from a very different standpoint, that a motive is vastly more than a natural phenomenon. As to moral action, therefore, that view of it is false which supposes "that the motives which determine it, having natural antecedents, are themselves but links in the chain of natural phenomena."[2]

The analysis of motive exhibits three important results: 1. Choice is never motiveness. 2. The end chosen is always a synthesis of all present motives, and is adequately expressed by no one of them. 3. This synthesis is an activity *sui generis:* it finds no analogy in the composition of physical forces. With these results clearly in view, he finds that "freedom, therefore, is a fact, if by it we mean the expression of one's self as conditioned by past choices and present environment." "Free choice is a synthesis, the outcome of which is, in every case, conditioned upon its elements, but in no case caused by them"[3] (p. 373).

To read Baldwin's chapters on the will (for these were well worth the space of a separate review) is to feel that a mind of admirable scientific temper has been at work throughout. Approaching the phenomena of mind from the naturalist's point of view, he has guarded against the tendency, all too common in these days, of trying to drive the principle of physical causality through a multitude of facts, naturally and philosophically recalcitrant to such treatment. The great lesson of his two volumes is, that in psychology the application of scientific methods and canons to mental phenomena affords no results which a cautious metaphysic may interpret as casting discredit on spiritualism in philosophy.

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[1] Jonathan Edwards, Day, etc.

[2] Green's "Prolegomena to Ethics," p. 93.

[3] cf. James, Vol. II., pp. 571–2.

SIR GEORGE BIDDELL AIRY.

THE cable has just flashed across the ocean the announcement of the death of Sir George Biddell Airy, the eminent astronomer of England. He was born on the 27th day of June, 1801, at Alnwick, in Northumberland, and had, therefore, just passed the half-mile post that would bring him to his ninety-first birthday.

Sir George Airy's life and work will always be looked upon as one of the most prominent pillars in the astronomical edifice erected in the nineteenth century. He had almost lived to see what had been done in that hundred of years. He had stood upon the pile of débris thrown up from the foundation, and looked down upon the formation of a structure, little dreaming that he would live to see the finishing touches put upon an edifice to which he had added so much material.

Airy was educated first at two private academies, Hereford and Colchester. From the latter, at the age of eighteen, he entered Trinity College, Cambridge. Three years afterwards he was elected to a scholarship. In that college he developed his remarkable mathematical ability, graduating as Senior Wrangler. His degree of M.A. was taken in 1826, and, with it, he was elected as Luscasian professor at Cambridge. Illustrious philosophers like Barrow and Newton had preceded him as occupants of that historic chair. Just previous to his election to that chair he published his mathematical tracts on the "Lunar and Planetary Theories," "The Figure of the Earth," etc., and "The Undulatory Theory of Optics."

Professor Airy, having been installed in the position just mentioned, followed his appointment with a series of popular lectures upon experimental philosophy, which were delivered with remarkable effect, and which greatly enhanced his scientific reputation. The university, recognizing in him one whose investigations were of a high order, elected him two years afterward to the Plumian professorship. This election gave him charge of the Cambridge astronomical observatory, and now is inaugurated an epoch in his life that is to elevate him to one of the highest positions held by English scientific men

Having been placed in the position above cited, Professor