

The work will deservedly enjoy a high degree of secondary authority among amateurs, owing to the good judgment and care which have presided over its compilation. Yet here and there we come across statements and reasonings which are not quite clear. For instance, on p. 219 we read, "Meteors, then, belonged originally to comets," and this conclusion is extended to "all meteoric bodies." But the only reason which is offered for this belief is that four comets have been known to break up under the influence of tidal forces into small fragments, forming meteors—an inference hardly parodied by the following: The 'Visible World' of Comenius, 'Nature Displayed,' by Dufief, Ollendorff, and Prendergast's 'Mastery' books, are all known to have produced many fluent speakers of different languages; hence, we may infer that all speaking of languages had its origin in phrase-books and the like. Such reasoning violates a logical rule of all induction, namely, that the sample by which the whole class is to be judged ought to be drawn at random from the whole of that class. This sample of meteors is, on the contrary, drawn exclusively from a part of the whole class which, owing to the mode of its limitation, cannot but possess that character which is inferentially, but unreasonably, extended to all other individuals of the class. What is a meteor? It is nothing but a cometary body which enters the earth's atmosphere. Why should all such bodies, without exception, be supposed to be broken from larger cometary bodies? In our present ignorance of the origin of things, it is not unlikely that of all the masses which wander through space a large proportion are very small. In such small bodies tidal forces would be very feeble, while their cohesion would be relatively powerful. It may be that Prof. Todd is in possession of some good reasons for thinking that no such bodies ever impinge upon our atmosphere; but if he is, they must be different from the premise he adduces.

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MARSHALL'S INSTINCT AND REASON

Instinct and Reason.

By Henry Rutgers Marshall. The Macmillan Co. 1898.

CSP, identification: Haskell, *Index to The Nation*. See also: Burks, *Bibliography, List of Articles*; MS L 159.119; MS 1513 (draft).

Under this title Mr. Marshall essays to furnish us with a psychology of religion. Its last words, printed in capitals, are, "Be religious." Why? Because analysis shows it is in the highest degree desirable. Very well; most of us already feel that keenly enough. The difficulty is that the first step towards being religious is to believe; and not only do the minds of most men nowadays not readily believe, but, bad as it is to be deprived of religion, it is unquestionably still worse to cook up a factitious, unfounded, and consequently unstable belief. True, Mr. Marshall persuades us that religion is an instinct, and, therefore, not a faith. But, like other instincts, the moment it is broken down in the particular form in which it has taken root in us, it is apt to evaporate altogether, or, at any rate, to retain little vitality. Thus, the book, in its practical upshot, leaves us just where the majority

of thinking men are already. Those who deem religion to be altogether baneful, had better avoid it if they do not want to change their minds. There are not many sentences in the volume as pro-religious as the following, which serves at once to illustrate Mr. Marshall's attitude and his way of constructing a period:

"We note also the existence of a continuous and partially effective opposition to rationalism by the established Christian Church; an opposition which seemed exceedingly perverse to the Church's opponents at the time, which appears extremely reprehensible to the body of thinkers to-day, but which, I am convinced, will not seem nearly so ill-timed nor so disgraceful to those who look back from the standpoint which will be attained in the future, however much they may deplore, as we all must do, the form which this opposition took and the methods employed to attain its ends."

It is certainly true that rationalism has been slowly declining. Since nineteenth-century science has taught us how truth becomes established, since Darwinian ideas have been applied to the history of mind, since Hegel's analysis of self-consciousness has been illustrated in studies of childhood, and since the phenomena of sub-conscious mind have become known, the pretensions of individual reason to solve the great problems have been at a discount. Yet, after all, it is our nature to reason, and we have to make the best of it. Progress never has come from the religious spirit, and never will, as Mr. Marshall acknowledges; so that the whole question is how far we are to carry rationalism, and at what point to check it. Mr. Marshall's doctrinaire anti-rationalism is rather amusing, considering that his whole book is rationalism undiluted with one single word dictated by authority or prejudice, or even instinct, as such. All that he contributes to the solution of that question is an argument to show that it is rational to pay great respect to our instincts, especially those of the broader kinds. We fancy one J. J. Rousseau said something like this, without being looked upon as the champion of unreason.

The author's method of philosophizing is heartily in the spirit of the times. He relies implicitly and utterly upon a line of evolutionary argument which may be sound and is decidedly fashionable. He assumes as unquestionable that every instinct must subserve, or have formerly subserved, some important need, and even sometimes seems to speak as if every tendency to reaction must benefit, or have benefited, the single cell as well as the whole organism. While he risks everything on such reasonings, he makes considerable general admissions as to the insufficiency of the evolutionary philosophy, going in some respects further than there was any need of doing. Thus, he grants to Mr. B. I. Gilman that "Darwinism" leaves the whole question of origins untouched. Darwinism, in the proper sense of the word, of course does so; but that a purely evolutionary philosophy can trace its way from a starting-point that logically demands no explanation back of it, is shown by the instances of Aristotelianism and Hegelianism, both of which philosophies are evolutionary and set out (or may set out) from complete actual indeterminacy. Equally needless and still more important is the confession that the idea of "progress" is purely relative to our own ideals.

If there be in nature a universal tendency in any definite direction, no matter what, that universal tendency will determine ideals; and therefore any such tendency would be a progress purely objective.

For reasons that appear decidedly feeble, Mr. Marshall concludes that there is something psychical—in his phrase a “psychic somewhat”—to which he gives the name of mentality, in all action whatsoever. The reasons for believing that the rudiments of mind are much more widely distributed than we can positively make them out are strong enough; but to select “action” (whatever that may mean) from among all the objective elements of the universe of phenomena as defining the limits of mind, is a very different inference. It may be doubted whether a concept so vague and confused as a “psychic somewhat” can be of any service at all in philosophy. It would seem to be the business of the metaphysician to discriminate between the radically unlike elements of psychoses, and to find good reasons, as soon as he is able, for identifying these with different elements of phenomena objectively observed. One of the psychic somewhats would appear to be immediate consciousness, or feeling; but there is little or no reason to opine that this is at all proportionate to the amount of motion of its subject, or to anything else of that sort which the word “action” may denote. Consciousness is defined by Mr. Marshall as “the field of inattention.” We may grant that this remark is founded on a true psychological observation, without admitting that attention and inattention differ otherwise than in degree, or that there is any threshold, or *Schwelle*, between them. Considered as a definition of consciousness, the proposition simply restricts that word to a particular kind of self-consciousness. Consequently, when the author applies the definition to the criticism of James and others, he simply misses their meaning.

Mr. Marshall reposes too confidently upon what he calls “mental and physical parallelism”—a monistic theory familiar enough in its outlines, though somewhat modified by the author—as against the traditional doctrine of a soul. To hold to a substantial soul is neither more nor less than to hold that mind and body really react. Action cannot take place without reaction, even if it can be so conceived, which may be doubted; for what would “action” mean without reaction? Yet the only considerable objections that Mr. Marshall brings against the theory of the soul are, first, that the action cannot be exclusively of mind on matter, and secondly, that it cannot be exclusively of matter on mind. The whole question is one of fact, and must await positive scientific observations for its settlement. Comparing it with other mysteries which have eventually been cleared up in that way—with that of the chemical constitution of the stars, that of the Trojan War, that of whether diseases are entities, that of meteorites, etc.—we remark that in those cases the facts were found to have little regard for the fine negative theories; and the simple idea of a soul seems to be rather more like nature’s habitual answers to experimental questions than is any highly metaphysical hypothesis of mind-stuff and the like. Perhaps we may ultimately find that mind and matter are of the same general nature, and yet that there is a real mutual reaction between body and soul.

We could not undertake to do justice here to Mr. Marshall's very elaborate main argument. It seems to be essential to his position to maintain a natural classification of instincts into those which conduce to the preservation of the individual, those which go to the propagation of offspring, those which support social life, and finally religion, which checks the tendency to reason—or to eccentricity, which is much the same thing, from Mr. Marshall's standpoint. Reason he holds to be conterminous with choice, and as broad as our psychic life, and not at all restricted to the more superficial consciousness. Here, of course, he must expect strong dissent. The work concludes with two strong chapters, antagonizing hedonistic and utilitarian ethics.

69 (6 July 1899) 18

An Introduction to the Theory of Analytic Functions.

By J. Harkness and F. Morley. Macmillan. 1898. 8vo, pp. 336.

Attributed to Peirce by Fisch in *First Supplement* (internal evidence). This item is unassigned in Haskell's *Index to The Nation*, vol. 1.

As a book to put into the hands of those students whose turn of mind enables them profitably to relish a spoonful or two of the odorous bouillabaisse that has been stewing on the mathematical range during all the generation last past, but who do not intend to become professional mathematicians, no other has yet appeared, or is likely for a good while to appear, we believe, half as good as this; unquestionably not, if we limit the comparison to works on the theory of functions, which has served as *pièce de résistance* during that period and longer. This is distinguished from other available elementary treatises by being in the main Weierstrassian—which means (as well as we know how to describe it in general terms) that it flies straight at the algebraic throats of fundamental problems, disdaining geometrical circumventions, and with a degree of logical precision which (whether it is of the essence of the method or only a natural concomitant of it) is certainly much superior to the previous habit of modern, or even of ancient, mathematics. This method offers special advantages over those of Cauchy and Riemann when the aim of the study is mental training, as it is with those students for whom this book is most adapted.

Such a book must aid in that disintegration of the traditional English idea of mathematics which has been going on of late years. For some reason the English have followed Euclid, Apollonius, and Archimedes more closely than have the Continental mathematicians. They have shared the Greek scrupulosity of logic, and, like the Greeks, seem to look upon all mathematicians with the eyes of geometers. They, more than others, for example, have been disposed to look upon a quarter-turn as an *interpretation* of algebraic imaginaries. It better accords with the Weierstrassian spirit, as well as that of the Lagrangian analysts, to regard the algebraic expression as an elucidation of the Euclidean geometry of the plane, as quaternions is of 4-dimensional geometry.