

## VI.—NEW BOOKS.

*Darwinism*: An Exposition of the Theory of Natural Selection, with some of its Applications. By ALFRED RUSSEL WALLACE, LL.D., &c. With Map and Illustrations. London: Macmillan & Co., 1889. Pp. xvi., 494.

The importance of the contribution made in this charmingly written book to the biological theory of evolution cannot be overrated. It is, in some respects, the most effective plea yet worked out for Natural Selection as the all-determining factor of organic evolution. And that it should be presented as an exposition of "Darwinism" by the man who had least obligation to give exclusive prominence to Darwin's personal achievement in the case, is the crowning proof of Mr. Wallace's superiority to all such considerations of *amour propre* as have disfigured too many pages in the annals of science. Readers will look elsewhere for an estimate of the general argument of the book, conducted throughout with so much vigorous independence; but some note should be taken here of the application made at the end to the question of human faculty. In Mr. Wallace's opinion, though the whole of man's bodily structure, brain included, must undoubtedly be referred to an animal origin, it is otherwise with his intellectual and moral nature. Three faculties in particular—the mathematical, the musical and the artistic (i.e., plastic, pictorial, &c.)—seem to him to have been manifested at times and under conditions, whether for races or individuals, that exclude the possibility of their having been evolved and developed by Natural Selection, working upon its ordinary and necessary basis of useful variation. The problem, which need by no means have been confined to these three faculties only, is a serious one enough for thoughtful evolutionists. For himself, Mr. Wallace can but declare that the facts "clearly point to the existence in man of something which he has not derived from his animal progenitors—something which we may best refer to as being of a spiritual essence or nature, capable of progressive development under favourable conditions" (p. 474). Whether the last clause of this sentence is exactly consistent with his argument as it had gone before, may be questioned; but the point of chief interest is how his supposition of "a spiritual nature superadded to the animal nature of man" is to get him over the real difficulties of the case. He goes on to urge, in a way that is common with others, that "there are at least three stages in the development of the organic world when some new cause or power must necessarily have come into action"—namely, the appearance (1) of vitality, (2) of "sensation or consciousness," (3) of man's "most characteristic and noblest faculties"; though it has all happened, he thinks, without "any breach of continuity". Here, again, the modifying clause might give occasion for a good deal of question; but let it suffice to note what the position has now become. The "three distinct stages of progress point," he says (p. 476), "clearly to an unseen universe—to a world of spirit, to which the world of matter is altogether subordinate," or, as he puts it a few lines lower down, "probably depend upon different degrees of spiritual influx". It is therefore, with Mr. Wallace, no longer a question of the origin

of distinctively human faculty only; he cannot without "spirit" account for animal faculty or vegetable faculty either. Nay, once in the vein, he will have it that also "to this spiritual world we may refer the marvellously complex forces which we know as gravitation, cohesion, chemical force, radiant force and electricity, without which the material universe could not exist for a moment in its present form, and perhaps not at all, since without these forces, and perhaps others which may be termed atomic, it is doubtful whether matter itself could have any existence". In a certain sense, it may be true; but how does Mr. Wallace not see that he is mixing up points of view? He has here been led on to graze questions as to the universal frame of things that are of philosophic import, rather than questions of science. Now it is not a hopeful way of beginning *philosophical* consideration to start from a metempirical imagination invented only to eke out the shortcomings of Natural Selection as scientific theory: a philosophical interpretation of the universe needs very different kind of founding. On the other hand, if Natural Selection fails, in regard to human nature, to give that understanding which it ever does give of any manifestation of life, it is surely not "spirit" that will ever avail to make up the *scientific* account.