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Wallace on Darwinism \*

IN THE HISTORY of the progress of science nothing more creditable to human nature has occurred than the relations between Charles Darwin and Alfred Russel Wallace. Their simultaneous conception of the most important of modern scientific theories, the magnanimous refusal of each of them to claim the priority, the still more magnanimous yielding of the younger to the older naturalist, and the firm friendship which arose between them and was maintained to the last, in spite of wide differences of opinion on important points, are facts which merit and have received hearty and general admiration. An equal respect for the men, however, has not blinded their admirers or the scientific public in general to the material unlikeness of their intellectual powers. Darwin is now universally held to have been one of those rare men of genius who arise at intervals to give a new impulse to human progress. His large grasp of thought, his profound insight, his tireless capacity for research, his clear inductive logic, his candid readiness to examine all objections, to acknowledge mistakes, and to admit promptly all the qualifications of his system required by any new evidence

\* Darwinism: An Exposition of the Theory of Natural Selection, with Some of Its Applications. By Alfred Russel Wallace. \$1.75. New York: Macmillan & Co.

were traits of character which marked him out for a great scientific discoverer.

Mr. Wallace, with all his varied talents and acquirements, holds a much less exalted position. As an observer and a describer he has few superiors. His works abound in interesting and important facts, set forth in a clear and agreeable style. But his reasoning powers do not match his perceptive faculties. His logic is often imperfect, and his deductions are frequently untrustworthy, and sometimes absurd.

His latest work has many excellences, with some serious defects. As a storehouse of scientific learning, well arranged and presented with the force and vividness which come from personal observation and which no mere compiler can attain, the volume must rank among the best of modern contributions to natural science. The chapters on color in animals and plants, and on the geographical distribution of organisms, are especially excellent. They are in the main summaries of the conclusions comprised in the author's previous works; but they have none of the usual dryness of summaries. They are readable and interesting throughout. The same, indeed, may be said of the whole work.

The great defect is in the author's incapacity for sustained logical reasoning. An observer with this mental defect becomes inevitably 'a man of one idea.' Mr. Wallace's one idea in evolution is 'natural selection,' resulting from the 'struggle for existence.' All other influences, by whatever authority or facts sustained, he puts contemptuously aside. He rejects the Lamarckian doctrine of 'use and disuse,' though it has been accepted by Darwin himself. He rejects Darwin's 'sexual selection.' He does not believe in the influence of the environment, nor yet in the 'physiological selection' of Prof. Romanes. The opinions of Spencer, Cope, Semper, Geddes, and other eminent physiologists and reasoners, are all set aside unceremoniously. We become conscious that the author, while courteously yielding precedence to Darwin, retained all the time the conviction that he himself was, and is, the one great light of the age in natural science.

It is not likely that any of those whose opinions Mr. Wallace treats thus slightly will be much disturbed by his objections, which are sustained rather by strength of assertion than by force of reasoning. In fact, the extraordinary character of the concluding chapter of the book may seem to dispense with the necessity of taking any of his arguments seriously. It is probably the most surprising chapter that has ever been put forth in any work of an author enjoying Mr. Wallace's reputation. That he is a votary of 'spiritualism,' of the modern 'Rochester rappings' kind, is a well-known and lamented fact. But that his devotion to this peculiar study should produce the singular jumble of absurdities which disfigure the concluding pages of this volume could hardly be anticipated. He assures us that he 'fully accepts Mr. Darwin's conclusion as to the essential identity of man's bodily structure with that of the higher mammalia, and his descent from some ancestral form common to man and to the anthropoid apes.' Furthermore, he admits that the mental faculties of man have been derived from those of the lower animals, up to a certain point. In savages and uncivilized races in general, as well as in the great majority even of civilized men, this derivation is apparent in regard to all their faculties. But there are certain special endowments, confined to a small number of individuals, 'fewer than one in a hundred,' which must have their origin in a higher source. These are the 'mathematical faculty,' the 'musical and artistic faculties,' and the 'metaphysical faculty.' These faculties, he considers, could not have been evolved by the struggle for existence, seeing that they would be of no use in a conflict of mere brute force; and consequently the 'motive power' which brought them forth must have proceeded from 'an unseen universe,—a world of spirit, to which the world of matter is altogether subordinate.' We learn, moreover, the bewildering fact that 'to this spiritual world we may refer the marvelously

complex forces which we know as gravitation, cohesion, chemical force, radiant force, and electricity.'

This description presents us with the vision of a truly Philosophic Paradise, which Swift might have invented for a Laputan heaven. As conceived by our author, the unseen universe is the source of mysterious physical forces, which issue from it to assist and perplex humanity; and its happy tenants, an elect few, are the disembodied spirits of illustrious mathematicians, artists, and metaphysicians—who, oddly enough, owe their immortality, by a sort of 'survival of the unfittest,' to the fact that their peculiar endowments were of no use in the struggle for existence which goes on in the material world.

If it is thought that Mr. Wallace's argument merits a serious reply, a very few words will suffice. According to the true Darwinian doctrine, the struggle for existence is constantly going on, in all stages of this mundane life, and in all grades of progress and culture. In this struggle the most powerful necessarily wins. Knowledge is power; moral force is power. All knowledge, all art (which is a form of knowledge), and all morality, are in some way or other useful. The higher that men rise in civilization, the more freely and forcibly do their finer faculties and accomplishments come into play, in this perpetual struggle. It was by its science and its art that 'captive Greece' subdued its conquerors. The nations which are most eminent in the abstruse sciences, the higher arts, and the nobler traits of character, are now governing the world by virtue of that very eminence.

It is much to be regretted that an author whose praiseworthy achievements in his own sphere have earned for him a distinguished reputation should have been led, by overconfidence, to attempt a task which was considerably beyond his powers,—that of revising Darwinism in an anti-Darwinian sense.