

MAN AND NATURAL SELECTION.*

MR. WALLACE has just published an interesting collection of Essays written at various times for periodicals, our own amongst the number, and he enters upon the curious question of natural selection considered in reference to its action upon the development of the human race.

It is constantly necessary, in speaking of Darwin's great doctrine, to guard against the notion that natural selection alone can be the *origin* of species; and we wonder that so acute a thinker as Mr. Wallace should actually name a series of propositions, which he has arranged in logical order, "A Demonstration of the Origin of Species by Natural Selection." If Darwinianism be true, we have first, organic life with powers of reproduction and variation; then the operation of surrounding conditions killing off those least able to conform to the circumstances under which they must live or die; and finally the "survival of the fittest," to use Herbert Spencer's happy term. The perpetual repetition of these processes may easily give rise to so-called "species" which are only varieties capable of hereditary procreation within certain limits. To get at a real *origin* of species, supposing these are the methods of operation, we must arrive at the cause of descent with variation, and at the cause of such co-ordinations of circumstances as will account for the highly complex, and yet orderly arrangement which science traces in the universe around us. There is a sense in which a spark is the cause of an explosion; but if we are told that a house was blown up because a spark fell upon its floor, we inquire what combustible and explosive material was thereupon deposited, and we only assign to the spark the power of determining one of many conditions by which the result was produced.

Mr. Darwin has shown, with a marvellous fullness of fact and illustration, how natural selection *influences* or determines the formation of species; and from the Essays before us it is evident that Mr. Wallace, by independent thought and investigation, had arrived at very similar conclusions, but no philosopher has yet traced many of the most important steps.

Certain difficulties connected with the operation of the Darwinian law come out very forcibly when attempt is made to apply it to the development of the human race, and with them Mr. Wallace

* "Contributions to the Theory of Natural Selection;" a series of Essays by Alfred Russell Wallace, Author of "The Malay Archipelago," etc, etc. Macmillan and Co.

endeavours to deal. He shows, first, how certain kinds of mental and moral development which favour co-operation and division of labour, would enable a more developed race to beat a less developed one in the battle of life. He considers that "man was a homogenous race at a very remote period of his history—a period of which we have as yet discovered no remains, one so far off that he had not yet acquired that wonderfully developed brain, the organ of the mind, which now, even in his lowest examples raises him far above the highest of brutes." At this remote era Mr. Wallace's man had not acquired "human speech, nor those sympathetic and moral feelings which in a greater or less degree everywhere distinguish the race."

Man's intelligence and capacity for combination, give him a power of using, or resisting, external circumstances to an extent far greater than that possessed by any other creature, and there is no reason to suppose that "natural selection," will ever change him into anything substantially different from what he is.

In considering the limits of the action of natural selection in man, Mr. Wallace calls attention to the very significant fact that while the brain of the lowest savages probably averages five-sixths of the size of the brain of civilized man, the brain of the anthropoid apes scarcely amounts to one-third of that of man. Thus man in a very low condition appears to possess a sort of reserved force of brain which does not come into operation until civilization acts upon him, except so far as to render the first steps of civilization possible. The lives of the lower savages exhibit little advance upon those of brutes—"a brain slightly larger than that of the gorilla would have sufficed for the limited development of the savage," and "we must therefore admit," says Mr. Wallace, "that the large brain he actually possesses could never have been solely developed by any of those laws of evolution, whose essence is that they lead to a degree of organization exactly proportionate to the wants of each species, and never beyond those wants." Undeveloped man no doubt exhibits capacities beyond his attainments, but if higher species are developed by descent with variation, natural selection, etc., from lower, is not this the case all through? Does not the experience gained by man in taming and teaching a variety of creatures point to the same fact, and does not nature bestow upon all the highly organized creatures, if not upon lower ones, a brain power beyond what they habitually use?

"The brain of prehistoric and savage man," exclaims Mr. Wallace, "seems to me to prove the existence of some power,

distinct from that which has guided the development of the lower animals through their ever varying process of being." The existence of a power superior to that of all the so-called secondary causes may be more clearly traceable in man's development than in that of the lower animals, but the superior power is surely to be recognized in all regions and in all directions, and it is a grave logical and metaphysical mistake to suppose that secondary causes suffice, without constant reference to a primary cause to explain what exists.

Mr. Wallace thinks that natural selection could never have given civilized man a hairless body, as all savages exposed to cold or wet, adopt a covering for the back, and hair in that position would be advantageous to them, and that we cannot suppose the absence of hair on the body to be correlated with development of the brain, but why not? Correlations do not stand to each other as cause and effect, and if throughout nature we find vast numbers of correlations useful or beneficial, why should we hesitate to recognize an intelligent cause? We quite agree with Mr. Wallace in his deductions, that a power other than natural selection is demonstrated by the facts pertaining to man, but we think all that the appearance of man upon the scene does is to confirm and extend proofs of an analogous kind that would be drawn from the lower world. Doubtless the universe contains beings higher than man, and if we knew their nature and development we should expect a more striking proof of the same ultimate fact.

Mr. Wallace finds it impossible to believe that the "intense and mystical feeling of right and wrong," which man exhibits can be the mere result of accumulated ancestral experience of the utility of moral sentiments and so forth, and others will feel the same difficulty. "Natural selection" alone could not account for such results, but its operation, though of great importance, is limited all through its sphere of action, and we see no region in which there is not a logical necessity for an Intelligent First Cause. Mr. Wallace winds up his arguments by commenting on the difficulties of proving the existence of matter, and the probability that *will* is the great ultimate force.

Man is subject like other creatures to the incidents which give rise to natural selection. His power of multiplication and the difficulty of procuring food brings about a battle for life, and the weaker races perish in collision with the strong. A premature development of moral or æsthetic faculties only helps to make the race that grows in this direction the prey of another which unites

strong animal instincts with the human capacity for organization. At last a point is reached in which the gentler side of life may be cultivated without peril, and when the sword can be safely beaten into the ploughshare ; natural selection may favour races remarkable for benevolence, but it will not let "the ape or tiger die" while their qualities are in demand.
