

*Contributions to the Theory of Natural Selection: a Series of Essays.* By ALFRED RUSSEL WALLACE. New York: Macmillan & Co.

THE reader of Mr. Wallace's Essays will be greatly interested in the new facts and reasonings here brought to bear upon the theory of Natural Selection; and not a little interested in the person of Mr. Wallace himself, who, in addition to his qualities as a scientific observer, shows himself even remarkably free from that vicious temper of self-seeking and dogmatism with which the pursuit of science is not infrequently associated. Certainly no man can well exceed Darwin himself in the modesty, candor, and supreme devotion to truth which characterize all his researches. But we may freely say that in all these characteristics Mr. Wallace does not fall observably behind him.

Mr. Wallace's work consists of ten essays, all bearing more or less closely upon the law of Natural Selection, but all tending quite equally to spiritualize our conception of creative order, in leading us to regard creation no longer as a direct exhibition of Divine power, exerted in the production of existing species, but rather as an indirect or mediate exhibition of it, employed in giving them generic or universal substance. According to Mr. Darwin, Mr. Wallace, and indeed the whole strain of our recent scientific martyrology, there is no evidence appreciable to science of any specific creation

ever having actually taken place. But since we can neither conceive of specific things as without being, nor yet as giving being to themselves, we are forced to conclude that they are created, only stipulating at the same time for liberty to push back their creation so far into the unrecorded past, as practically to identify the event with *the constitution of nature*. This is what gives the controversy its great philosophic interest, that it is thus driving men of science, who are too often superbly prone to sniff at such inquiries as metaphysical, to investigate the origin of existence, or demand an adequate philosophy of Mother Nature herself. For if species interpret themselves into Nature, what does Nature interpret herself into? There can be at bottom but *one* source of being; so that it really does not seem improbable from present tendencies that science may ere long conclude that material things have a rigidly spiritual origin, consisting in the uses they promote to higher existence: thus that there is nothing so veritably supernatural, on the whole, as nature itself.

On its face, however, the controversy is no way philosophic, but purely scientific. The question debated is, whether species obey a natural law of evolution, each being a modification of some broader and cruder species; or whether they must all be regarded as so many original but successive types of creative power. This question begets any amount of conflicting ratiocination, because, like all scientific questions, it admits only of an approximate solution, being dependent for its settlement upon an endless array of counter-probabilities on either side. And we need not expect, therefore, that the problem in its strictly scientific aspect is going to be put at rest in our day. But we repeat that there is every reason to suppose that the controversy will soon be taken off this limited ground, and put upon a truly philosophic foundation. If the rival disputants can only be led to discern, as it would seem they cannot long avoid doing, that all true questions of material *origin* or *nature* are at bottom questions of spiritual destiny, they will at once and gladly leave off rummaging the underground cellars of history in search of the mystery of existence, and turn to its illumined upper stories, which are even now looming large upon the horizon of men's living faith, for the light that they alone are competent to supply. The scientific instinct hitherto, and especially of late,

has been to deal with facts exclusively, and ignore doctrine. But all signs show, and this Darwinian controversy irresistibly, that men of science will be required in the future to become men of thought as well; that is, to confront truth as well as fact, or purge themselves of all indifference and indecision with regard to universal questions, no less than to particular ones. In a word, Nature—sole veritable sphinx, who has hitherto baffled all philosophic and all religious sciolism alike, with her insatiate demands of what? whence? whither?—is now blocking the way of Science herself, and will eventually force her to become godly in pure self-defence, or to hinder the human mind from being buried under its own rubbish, from becoming extinguished indeed under its own mere and miserable *exercita*. It is true that technical men of science seem more backward than any other as to philosophic tendencies; for when any one of them, like Mr. Darwin, steps forth from the ranks to deny, however modestly, that we have any evidence of Divine power ever having been exerted *upon* nature, or strictly from without, and not from within, he instantly challenges such distinction above nearly all his peers as necessarily argues their intellectual average to be very moderate. But the tradition, let us hope, is at last fatally interrupted; so that we may reasonably infer that there will be no *mere* man of science in the future; that is to say, none who will be content simply to *know*, without exacting that his knowledge prove itself at the same time serviceable to *thought*.

Let the truth be thoroughly understood on this subject. The *positive* benefits accruing to the intellect from science are not nearly so great as superficial observers are wont to imagine. It is emphatically a *negative* service which science has hitherto conferred upon the mind; consisting in its gradually disenchanting us of the old superstition which made space and time laws of the infinite being we have in God, rather than two most generalized expressions of the finite and phenomenal existence we have in ourselves. In destroying this vulgar prejudice, science has virtually lifted the philosophic problem of creation (together with *all* strictly cosmical questions whatever in fact), out of the sphere of sense, and converted it henceforth into an exclusive problem of the reason. Such is the great negative work it has done, in sternly demolishing every

fancied haunt of Deity within the material realm, and relegating us to the spiritual realm of mind alone to find any adequate signs of his presence. In short, it has prepared us for the spiritual recognition of God, as a being who is essentially inscrutable to a direct approach, or refuses to become known save as he is necessarily *revealed* in his creature.

Of course, people will vary indefinitely in their views as to how revelation becomes worthily constituted. Science has no word to bestow upon this topic. But she puts it beyond all doubt, by the intellectual attitude she assumes at this day, that *revelation*, or *no knowledge*, are the sole remaining alternatives of the human mind with respect to God. Either *some* revelation of the Divine name is necessary to our knowledge of God, or else the Divine name must consent ere-long to be blotted out of men's remembrance: upon this point she speaks with commanding accents. We accordingly mean no reproach, but a sincere homage to science, when we express our conviction that any old dame, with spectacles on nose, who devoutly patterns her Bible, even at the risk of swallowing all its marvels as literally true, has a much better, though latent, intellectual relation to the future of thought, than even our sturdiest eaglets of science, who yet are content to find in their knowledge of what they call "the laws of nature" a full satisfaction to their spiritual aspirations, or thirst for truth. She at least does not actively or acutely misapprehend the *role* which Nature plays in the drama of creation, and they habitually do this, in converting her from an accessory into a principal. The truth is, that what we call "nature" is merely a hypothetical body, or bond of universality, which we, in our ignorance of man as the only *true* universal, do not hesitate to assign to specific existence, mineral, vegetable, and animal, as necessary to give them fixity, or render them stable. And this is literally all it is: a purely logical substratum or substance, having neither existence nor function unsupplied by our intelligence. In its widest acceptation, it is a mere provisional cuticle of the human mind, designed to harbor that mind, or give it a *quasi* outward unity with itself, while it is destitute of true inward unity, or unhoused in its own spiritual recognition. And to take up our abode in nature, therefore, or make it the temple of our intellectual rest, without instantly pressing on to know the ma-

jestic spiritual form to which it is altogether and abjectly ministerial, is not a whit more creditable to our intelligence, than it would be to cherish the disgusting viscera of the corpse for their own sake, and with no view to the lessons they reflect upon the health and disease of the living subject.