

THE ORIGIN OF SPECIES BY MEANS OF NATURAL SELECTION; or the Preservation of Favoured Races in the Struggle for Life. By CHARLES DARWIN, M.A., F.R.S., etc. Fourth edition, with additions and corrections. Eighth thousand. (Murray.)—No book of modern times has contributed so much to philosophical thinking on the subject of natural history as the *Origin of Species* of Charles Darwin. A considerable allowance of abuse from those whose minds were ossified with old-established prejudice, did more to call attention to this masterly work than to obstruct the reception of the truths which it conveys, and if its author has to complain of some ill-treatment on the part of those who know no better, he has the satisfaction of being more or less supported by the greatest thinkers of the day. Gross mistakes have been often made in treating the doctrine of "natural selection" as if it were merely a hypothesis capable of being entirely overthrown; whereas the exposition of the doctrine is simply a statement of facts; and the scientific doubt pertaining to it, concerns the extent of its action, and not the question of its existence. That living beings succeed in hereditary series is one fact; that progeny are subject to variations from the parent type is another fact; and it is a third fact that some of these variations are transmissible in long succession. Man, by careful breeding, transmits peculiarities in horses, dogs, cattle, pigeons, etc., according to his wants, or according to his whims. In nature, the permanence, or long duration of a transmissible peculiarity must, as Darwin shows, depend upon its adaptability to the circumstances in which the modified creature finds itself. If it lessens the power of the individual to fight the battle of life, it dies out, while if it assists in that conflict, it remains. The hypothetical part of Darwinism consists in the inferences which he draws, or suggests, as to the *extent* to which these causes have operated in past times. If we suppose their extent of action to be no greater than we can *prove* it to have been, it will not account for the descent of a vast multitude of divergent forms from one, or from a few parent forms; but if the positive evidence in this matter is incomplete, the negative evidence is palpably afflicted with the same defect to an enormous degree. If we had cause to suppose that geology and palæontology displayed to us a fair and unbroken sequence of organic beings from early times to our own, the negative evidence against the hypothesis would be



very strong indeed; but an immense deal has been done of late years, not only to show beyond all doubt that our palæontological record is incomplete; but that it is imperfect to such an extent that it may be likened to a book from which whole chapters of unknown size, and unknown contents, have been cut out. How many of these chapters we may be able to recover no one can guess, as only a small part of the earth has yet been subjected to accurate examination. We are likewise profoundly ignorant of the physiological causes of hereditary transmission, with or without variation. Darwinism, therefore, stands in the position of an array of facts, proving the operation of certain principles, but leaving room for conjecture as to the extent of that operation, and its consequent capacity of evolving new forms. Whether, therefore, it be accepted or rejected, the mind should still have its "philosophic doubt," and avoid bigotry with its antagonism to reason, on either one side or the other. As for the religious questions which have been mixed up with this, as with all former innovations upon received modes of thought, they must be subordinated to the love of truth, and to the conviction that whatever method it may have pleased the Creator to adopt in peopling his world, that method must necessarily be one which, when understood, will excite the love and admiration of his rational subjects. The testimony of all science is conclusive as to the infinitely small proportion of nature which we can either observe or understand; but there is much to lead us to believe that all parts of the vast whole are bound together by a unity of design, as well as by a unity of origin from one ultimate source of intelligence and power. From the vastness of the *Cosmos*, human speculation is necessarily imperfect, from insufficiency of information, or from the complexity of the system baffling men's powers of analysis. The readers of Darwin will find many beautiful and amazing instances of the interdependence of objects that might have been supposed disconnected; and no one in whom the religious spirit is active can rise from a perusal of his pages without higher conceptions of the evidence which Natural Theology offers to the mind.