

*Hints and Facts on the Origin of Man, and of his Intellectual Faculties.* By PIUS MELIA, D.D. London: Longmans. 1872.

*The Origin of Species by Means of Natural Selection.* By CHARLES DARWIN, M.A., F.R.S., &c. Sixth Edition, with Additions and Corrections. London: John Murray. 1872.

*La Civiltà Cattolica.* Serie VIII., Vol. IV. e V. Firenze: Luigi Manuelli. 1871-2.

DR. MELIA'S contribution to the "Darwinian" literature is important and hopeful, as showing that the attention of zealous and able Catholics is more and more directed to the necessity incumbent on orthodox thinkers of confronting the hypothesis by reasoning, and not leaving it to fall simply by its own weight. Moreover he interestingly illustrates in various ways the general argument for the soul's spirituality and immortality. But as regards Mr. Darwin in particular, it is not very clear what Dr. Melia intends his essay to be—whether the pleading of an advocate or the summing-up of a judge. He means, of course, to do as much harm as he can to this absurd Darwinian hypothesis on the origin of man. But it hardly serves this purpose to quote and describe a number of other equally irrational theories, gathered from all sorts of writers, of every age and country. Even if the obscure myths of the "ancient Indians" threw any light on a hypothesis that pretends to rest on hard experiment and strict science, the author might have got them from a more trustworthy source than Buffon. Comparative mythology has made some advance within the present century. But, without descending to the details of Dr. Melia's book, it seems to us that he does not attack Mr. Darwin in the right way. It is nothing to the purpose to prove that the Darwinian conclusions are not novel; that Epicurus, or Lord Monboddo, or Lemarck said just the same thing long ago. There is a certain amount of novelty in Mr. Darwin's hypothesis, the idea, namely, that development is in great measure due to selection; but it is the method of proving the hypothesis that is the really new feature of Mr. Darwin's labours. He has marshalled, in support of his theory, an array of physical science that has never been equalled. We are far from saying he has succeeded in proving what he has undertaken to prove. We hold the precise contrary. Some of his science is questionable, much of it is beside the mark, and all of it together is insufficient. But there it is; and one way to meet Mr. Darwin is to attack his science, as Mr. Mivart has done so successfully. Another way is to meet him on the ground of psychology and metaphysics generally. He himself would hardly admit all that a Catholic would advance in the way of metaphysical argument; so we should have to prove our metaphysics as we went on. But it would be a perfectly legitimate and satisfactory method of fighting. For instance, the difference of kind between intellect and imagination might be proved by analysis of the operations of the mind, or the Darwinian arguments from similarity, from embryology, and from rudimentary organs, might be shown to be inconclusive as to evolution. Those are the two main routes to a successful combat with a theory, which has undoubtedly

had a wonderful success since Mr. Darwin's first edition of "The Origin of Species," in 1859. Dr. Melia, in one sense, agrees with us, for he brings to bear both science and metaphysics. But his metaphysics, for the most part, touch, not Mr. Darwin, but those who deny the existence of God; which, as Dr. Melia assures us, Mr. Darwin does not. As to his science, there is an interesting account of a deaf mute in the Cambrian Institution at Swansea, published apparently for the first time. (pp. 46-8.) Otherwise Dr. Melia does not impress us as in this respect quite up to the mark. Indeed he is not very recondite in some of his authorities. Migne's "Dictionnaires" are not of any great weight in science, neither is the name of Racine.

Moreover we would submit to Dr. Melia, with very great respect, whether it would not have been better to explain himself more unmistakably, on a matter which is of some doctrinal importance. He says (p. 50) "that social teaching is absolutely necessary to the first development of the faculties of speech and reason: as it is clearly proved, that when social teaching has not been afforded, no speech is acquired; nor the faculty of reason awakened." We wish he had explained where lies the precise difference, between what he here intends to express and the disapproved Louvain traditionalism. Our readers will find the doctrine of the four Louvain Professors, as set forth by themselves, in our number for April, 1869 (pp. 532-536). And in regard to the authoritative disapproval of this doctrine, we would refer to the documents published by us in January, 1868. (pp. 281-288.)

Mr. Darwin's sixth edition contains important new matter. It purports to be a "cheap" edition, and the paper and print are proportionately bad. The most interesting feature in the new edition is the insertion of an entirely new chapter (the seventh), which is devoted to the consideration of "Miscellaneous Objections to the Theory of Natural Selection." We are glad to see, moreover, that the author, in the concluding chapter, distinctly admits that his opinions have somewhat changed since his first edition. "Species," he says, "have been modified during a long course of descent. This has been effected chiefly through the natural selection of numerous successive, slight, favourable variations, aided in an important manner by the inherited effects of the use and disuse of parts; and in an unimportant manner, that is, in relation to adaptive structures, whether past or present, by the direct action of external conditions, and by variations which seem to us in our ignorance to arise spontaneously. It appears that I formerly underrated the frequency and value of these latter forms of variation, as leading to permanent modifications of structures independently of natural selection." (p. 421.) But, he continues, "I may be permitted to remark that in the first edition of this work, and subsequently, I placed in a most conspicuous position—namely, at the close of the Introduction—the following words: 'I am convinced that natural selection has been the main, but not the exclusive, means of modification.'" In spite of this disclaimer, however, it is evident that Mr. Darwin has now considerably modified the meaning of his word "main," as may easily be seen by referring, for instance, to "Animals and Plants under Domestication," vol. i. *Intro.* p. 12.

Mr. Darwin dedicates the greater part of his new chapter to the consideration of the criticisms of Mr. St. George Mivart:—

“A distinguished zoologist, Mr. St. George Mivart, has recently collected all the objections which have ever been advanced by myself and others against the theory of natural selection, as propounded by Mr. Wallace and myself, and has illustrated them with admirable art and force. When thus marshalled, they make a formidable array; and as it forms no part of Mr. Mivart's plan to give the various facts and considerations opposed to his conclusions, no slight effort of reason and memory is left to the reader who may wish to weigh the evidence on both sides. When discussing special cases, Mr. Mivart passes over the effects of the increased use and disuse of the parts, which I have always maintained to be highly important, and have treated in my ‘Variations under Domestication’ at greater length than, as I believe, any other writer. He likewise often assumes that I attribute nothing to variation, independently of natural selection, whereas in the work just referred to I have collected a greater number of well-established cases than can be found in any other work known to me. My judgment may not be trustworthy, but after reading with care Mr. Mivart's book, and comparing each section with what I have said on the same head, I never before felt so strongly convinced of the general truth of the conclusions here arrived at, subject, of course, in so intricate a subject, to much partial error.” (p. 176.)

In answer to Mr. Mivart's objections, Mr. Darwin is, as usual, acute and armed at all points with instances. We do not think any one will consider him to have disposed of his antagonist satisfactorily. No doubt he explains, and makes hypotheses and postulates, and in the end the reader may be ready to admit that the thing *might* be as he says it was. And we allow that it may not always be possible to answer every objection, even to theories which are certainly proved. But it must be remembered that nearly the whole of Mr. Darwin's reasoning in behalf of natural selection is capable of being analyzed into a number of hypotheses, each grounded on a very moderate amount of fact. Homology, embryology, rudimentary organism, heredity, and the other terms that are, as it were, the fortified places of his dominion, are only generalizations from observed facts, and from facts which are not overwhelming either in number or cogency. We do not complain that the case is so, but we would point out that one way at least to disprove the theory of natural selection being to take up the particular classes of facts upon which it depends, it follows that as long as there is anything like an equal fight about the significance of the facts—as long as Mr. Darwin is not convincingly and unmistakably in the right in his inductive process, the verdict cannot be given on his side. If Mr. Mivart's book did nothing else, it went to prove that disagreement was not only possible, but a matter of necessity; and Mr. Darwin's new chapter, by the very acuteness with which it points out new facts, postulates new conditions, and lays claim to new possibilities, proves very much the same thing.

The “*Civiltà Cattolica*” began, in November of last year, a series of articles on the theory of Natural Selection, chiefly as applied to man. The writer does not treat the subject from the point of view of Faith, but confines himself to scientific exposition and refutation. After devoting an article to a description of the general theory of selection, he begins his answer by a definition of the word “species.” Species includes two ideas; it implies similarity and descent; and the writer undertakes to prove that there really are in nature true species, that is to say, families of beings whose family likeness

is stable and unchangeable within a certain *laxum*, and which can only propagate individuals in whom this likeness is found. This, of course is the great question of the fixedness of species and of the sterility of hybrids, which has been raised in so many forms in late years. Sterility is, perhaps, the greatest of the difficulties that the patrons of natural selection have to overcome. Mr. Darwin considers the question at length in "The Origin of Species." (Chap. ix.) He brings forward facts which seem to us to prove that the doctrine of uniform sterility of hybrids, as laid down by the writer we are noticing, is too absolutely stated; but this is of little importance. What is of much greater moment is that Mr. Darwin himself confesses that the fact is "extremely general"; but he denies that specific distinctions have anything to do with it. His explanation is that it follows from "unknown differences in their reproductive systems," widened by change of soil or of climate, by captivity, or by similar causes. (p. 245, 6th ed.) It seems to us, however, that until a result which always, or very generally, accompanies what we call specific distinction can be very clearly proved not to follow from it, there is a strong case for those who maintain that this very general law is really a law of species as such, and that species therefore is, within certain limits, unchangeable.

The writer in the "Civiltà" appeals for a confirmation of his views to the fact that in Egypt, for at least 3,000 years, species have remained as they are now, showing no signs of alteration for the better or the worse. Perhaps Mr. Darwin is right in saying, after Mr. G. H. Lewes, that this line of argument proves too much, for it would prove that domestic animals, many of which are identical in the ancient Egypt representations with what are living now, were true species,—which no one would admit. The writer in the "Civiltà" does not omit to press the argument derived from the absence of grades of being in the geological record in many instances where, on the Darwinian theory, we should have expected to find intermediate beings.

Passing to the more immediate consideration of the descent of man, he first states Mr. Darwin's arguments from similarity, from embryology, and from rudimentary organs, and then proceeds to argue against each. No Darwinian has ever yet given what approaches to a satisfactory explanation, on his theory, of the enormous difference in size and weight between the brain of the lowest race of men and the highest anthropomorphous apes. Mr. Wallace, who is the co-founder of the theory of selection (which, however, he does not extend to man, as such) is as strong as the Italian writer we are quoting on this important fact.\* The argument from embryology, on which Mr. Darwin lays great stress, seems to us to tell precisely against him—even more so than the "Civiltà" insists. At a certain stage the embryos of a mammal, a bird, a fish, and a reptile are utterly undistinguishable from each other. Therefore, argues Mr. Darwin, all these families have descended from the same stock. Rather, we should argue, therefore the *ova* which are so undistinguishable to sense, are really perfectly different things. In what, it may be asked, can their difference consist? We answer that it consists in that active tendency or power which was originally

---

\* "Contributions to the Theory of Natural Selection," p. 335.

given to the , mediately or immediately, by their Creator. The Darwinian cannot reject this answer as a gratuitous introduction of the unknown or the supernatural ; for one of Mr. Darwin's own *postulates* is this, that a modification acquired by a parent at a given age will re-appear in the descendant *at the same age*. (p. 10.) This, be it observed, is a postulate without which his theory of selection could not walk a step ; and there was never anything imagined by the wildest scholastic in the shape of form or potency that was more gratuitous, *as an explanation*, than this. It would be much more natural to say, as many of the scholastics would, that such modification once acquired (if it was to be transmitted) was there all the time, and developed itself under favourable circumstances.

We quite agree with the writer in the " *Civiltà* " that the argument from rudimentary organs takes for granted the all-important assumption, that certain organs really are rudimentary organs. Mr. Darwin thinks that he has discerned, by the help of Mr. Woolner, the rudiments of " pointed ears " in the ears of man. But in order to decide whether the little projection which he thinks he has found is a true rudiment or not, he ought first to ascertain how it came there. If it came about by small selective changes, then no doubt it is a rudiment ; but this is just what he has to prove. If, on the other hand, it was originally made for a particular purpose just as it is, then it is not a rudiment at all. If a poor man cuts away the upper-leathers of his old boots to make himself a pair of sandals, a philosopher might call those sandals rudimentary boots ; but if a rich man orders a pair of sandals from a manufacturer, no one but a wag would be allowed to call them by any such name. Many people believe that God fashioned man's body in a way in which He has fashioned no other thing of all the things His hands have made.

We look with interest for the promised continuation of the arguments of the " *Civiltà*."

---