

former being "mechanism *plus* teleology," and of the latter, "we should not distinguish mind and matter as two substances, but teleology and mechanism as two modes of action."

The bishop's view is the legitimate one that function precedes structure. This may seem "Lamarckian nonsense," and leading back to all the superstitions of vitalism, but in point of fact it is an attempt to explain the evolution of structure by the experience which we have, in our own persons, of the actual modification of neural structure. Of this we actually have experience whenever we acquire a new habit, as neurologists like Sir Charles Sherrington and Dr. Henry Head have shown.

This part of Dr. D'Arcy's work will attract the biological student who has an interest in the philosophical implications of his science; but the psychologist will not find so much here to interest him. This is a pity, because the "conflict between religion and science" has largely shifted from biological on to psychological ground. Though a biological attitude necessarily leads to an equivalent psychological attitude (*e.g.* vitalism in biology means animism in psychology), yet we should have liked to hear Dr. D'Arcy's views on the bearing of the new psychology (and for that matter, the new anthropology) upon religion. "We are just getting the guns into position" is what one anthropologist is said to have remarked, and it is what a number of psychologists believe. These sciences seem to many people very menacing to religious faith; and the bishop does not help us much here. Nevertheless, we are grateful for a courageous, sincere, well-informed, and well-written book.

(2) Dr. Shailer Mathews' work has a very ambitious scope. The book is composite, and numerous authorities explain their own sciences and show how these have no hostile bearing upon religion. There are also some essays on the practical value of the natural sciences. Dr. Mathews contributes a valuable introduction, and four final chapters on religion as a personal adjustment to environment. It is to be hoped that this volume, so encyclopædic in the information it contains, and so broad in outlook, may be widely read in the United States.

(3) As for Mr. Morris Morris's "New Light on Genesis," biologists will suppose that the strength of his argument must lie in his exegetical chapters, whereas students of the Pentateuch will imagine they must lie in his criticisms of Darwin. We shall always lament that writers like Bateson, disappointed in their rather extravagant expectations from Mendelian theories, have given the impression that evolution was itself discredited, that is, that the *fact* of evolution, and not merely its *mode*, was in doubt. Mr. Morris Morris

solves the problem of the origin of variations by saying (p. 40) that they were supernaturally caused. But this is to offer a different type of explanation, and to introduce a different type of causality, from that which we have become accustomed to regard as scientific. It is equivalent to saying that there can be no scientific explanation. But this is to dogmatise; and men of science will not willingly take refuge in that *asylum ignorantie*.

J. C. HARDWICK.

Our Bookshelf.

Les Echinodermes des mers d'Europe. Par Prof. René Koehler. (Encyclopédie scientifique : Bibliothèque de Zoologie.) Tome 1. Pp. xiii + 362 + 9 planches. (Paris : Gaston Doin, 1924.) 16.50 francs.

HAVING published an excellent volume on echinoderms in the series "Faune de France" (see NATURE, vol. 107, p. 776, August 18, 1921), Prof. Koehler now undertakes to provide working naturalists with a guide to the echinoderms of Europe, both the littoral species and those that live on the continental plateau, as well as a few of the more interesting forms that have been dredged from greater depths. Since no such work has previously been published, the present one by so distinguished an authority will be warmly welcomed. It is to be in two volumes, of which this first one comprises the Asteroidea and Ophiuroidea, which are represented by 65 and 60 species respectively. The work is faunistic and essentially descriptive. Keys abound, and there are nine plates crowded with admirable photographs taken by the author and supplementary to those in the "Faune de France."

We have checked the accounts in various places, as occasion offered, and find them thoroughly practical. Here and there are statements that might be criticised. It is, for example, surprising to find so learned a zoologist still regarding the supposed *dorso-central* as a primary element in the echinoderm skeleton, and, what is worse, calling it the *centro-dorsal*—a totally distinct structure. He should also know that the term *ambulacra* was not given because of any connexion with locomotion. Or, to take a question of nomenclature, it is not clear why *Gorgonocephalus caput-medusæ* (Linnæus) should yield to the later synonym *G. lincki* (Müller and Troschel). Probably Prof. Koehler, who always gives 1841 as the date of Forbes's "History of British Starfishes," has not discovered that it was published in six monthly parts from October 1, 1840, to March 1, 1841. This may not be without importance. Such lapses as these, however, do not detract from the practical value of the book.

Preceding the systematic portion are some interesting chapters on the general morphology, development, phosphorescence, mode of life, parasites, and distribution of living echinoderms. The chapter on their palæontology is not quite abreast of modern views, but the notes on methods of preservation should be useful. At present rates, the book is remarkable value for the money.

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