

The theory of evolution in general and Darwin's concept of natural selection in particular are scientifically established. This is made clear by Ayala, who is professor of genetics at the university of California and who writes of the evolutionary idea that 'it is a scientific conclusion established with a certainty similar to that of notions such as the roundness of the earth, the motions of the planets, and the molecular composition of matter' (pp. 59–60). More particularly he affirms that the concept of natural selection is still accepted, but 'is understood today in genetic and statistical terms as differential reproduction' (p. 82). Therefore Sloan takes it for granted that 'neoselectionist evolutionary theory remains the best scientific explanation of the range of natural phenomena that it seeks to deal with' (p. 122).

This book contains a variety of historical comment and philosophical or theological reflection. Among the historical comments I found Sloan's on Darwin well documented and judicious. He demonstrates that although Darwin sometimes does speak as if nature were intentionally directed, at other times he does not; and that he never fully clarified his mind on this crucial point. In an excellent article on Teilhard, Mooney shows how he combined an evolutionary world view with a Christian one without attenuating Christian beliefs. Among the philosophical and theological reflections two things stand out. Both exhibit the compatibility of evolutionary science with Christian faith. On the one hand, because belief in God as the Creator signifies the absolute and constant dependence of the world on him it leaves scientists free to discover ways in which the world arose and developed (see especially pp. 11, 184 and 274 in the essays by McMullin, Kelsey and Nash). Hence the cosmological argument is totally unaffected by science. On the other hand, the theory of evolution reinforces the teleological argument in two ways. First, the fact that the conditions of the universe were exactly right for the production of life calls for explanation; for (as Leslie says with supporting detail) 'even very minimal changes would have been fatal to life's prospects' (p. 102). Secondly, an explanation is also required for the movement from the lower to the higher in the course of evolution; for (as Ross puts it) 'intelligent beings, and probably living beings in general, are not merely resultant but emergent from micromatter and have active powers not possessed by their microparts' (p. 223).

These (and other similar) reflections are not new; they are stated (sometimes more lucidly) in many previous works; but this restatement with such careful reference to the relevant sciences in their present state is welcome.

H.P. OWEN

MUSIC AND THE EMOTIONS, THE PHILOSOPHICAL THEORIES, by Malcolm Budd. London, Routledge and Kegan Paul, pp. ix + 190, 1985.

This book tackles a very difficult problem in musical aesthetics. What do we mean when we call a piece of music sad or gay? What relevance to that question have any emotions felt by the composer or caused by the music in the listener? What relevance has any emotion or emotional character to the value of the music as art? Two simple and popular answers are that to say that a piece of music is sad or gay is to say that it expresses the emotion of the composer—his sadness or his gaiety—and that it causes sadness or gaiety in the hearer. Mr. Budd disposes very efficiently of these, while acknowledging that the emotions of the composer may be causally relevant to the character of the music. Clearly, as Mr. Budd demonstrates (though not with this example), when Beethoven marked the second movement of Op. 10 No. 3 *Largo e mesto*, he was not giving a tempo direction plus a piece of emotional autobiography, nor would the music cease to be sad if a little note by Beethoven were discovered which read 'Fooled them all; I wasn't at all sad when I wrote it'. But Mr. Budd would probably not agree with me when I say that in writing both '*largo*' and '*mesto*' Beethoven was giving directions on how to play the music. Moreover listening to

sad music can make us very happy.

Budd discusses many other issues, and does so acutely and judiciously. But since in his discussion of the view that to call a piece of music sad or gay is to ascribe to it a purely sensible quality he states that my view is only trivially different from Hanslick's, which he refutes, I propose to concentrate on that issue. First, 'to repudiate to the role commonly assigned to the emotions in the experience of music' does not require us 'to construe the experience as essentially one consisting in the contemplation of various "purely musical" features of the music'. The emotions aroused in us by the experience of sad music may be very important indeed; the point is that these emotions need not, and may well not, include sadness. If Hanslick did not see this he was wrong; but it is an error which in no way damages the central contention that to call the music sad is to describe it and not to connect it with the actual or possible experiences of various people. But I think Budd's main contention is that if, with reference to music, 'sad' and similar terms describe a sensible quality but, with reference to people, describe an emotional state, then these terms are ambiguous; we could invent new terms, say 'das' *vice* 'sad' and 'yag' *vice* 'gay' and use them with regard to music without loss; but clearly this would involve a loss, so, Budd concludes, the theory is false. But surely Aristotle was right to claim that the synonymous use of terms and mere chance homonymy are not an exhaustive dichotomy. The foot of a mountain is not the same sort of thing as the foot of a man and we could call the foot of a mountain a 'toof'; but it does not follow that nothing would thereby be lost. The analogous use of language is not chance homonymy. For that matter, the sweetness of a taste is not the same thing as the sweetness of a sound, but it is appropriate to use the same word in both cases. In ways somewhat like these it is appropriate to use these emotional terms to describe the music. I would not claim that anyone has given a finally satisfactory account of the matter on the lines I am now defending, certainly not Hanslick, for all his insight. But, while Mr. Budd satisfies me in all his other discussions in his very able and valuable book, I do not think that the kind of view which Hanslick and many others, including myself, have endeavoured to state has been finally refuted.

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THE OLD TESTAMENT PSEUDEPIGRAPHA by J.M. Charlesworth (ed.): **Volume 2 Expansions of the "Old Testament" and Legends. Wisdom and Philosophical Literature, Prayers, Psalms, and Odes. Fragments of lost Judeo-Hellenistic Works.** Darton, Longman and Todd, London, 1985. Pp. i., 1006. £30.

The first volume was reviewed (with a few printer's errors) in volume 65 (October 1984) of this journal. The second volume repeats the fifty introductory pages of the first, and the directing hand of Professor Charlesworth is frequently evident in the work of the twenty three contributors from USA, three from Canada, one from Germany, two from Holland, and three from the UK. These figures, by the way, indicate how much biblical scholarship is now indebted to resources and skills available in America.

Almost half the documents in this volume have been known in translation since early this century in Charles' *Apocrypha & Pseudepigrapha* II, or in publications by M.R. James and J. Rendall Harris. Others were more difficult to find, and some were not reliably translated at all. To have them all together in this way is convenient, instructive and often surprising. For some the collection will be too comprehensive and elaborate: for them *The Apocryphal Old Testament* edited by H.F.D. Sparks (Clarendon Press 1984) can be recommended, though the title is confusing (it contains pseudepigraphical works, all present in Charlesworth). Its translations are readable and the introductions (all by the editor) are consistently lucid and dispassionate. Even those who use Charlesworth should not leave Sparks aside. But one or other will certainly be needed to accompany Volume III of Schürer's *The History of the Jewish People in the Age of Jesus Christ*, which deals