

REVIEWS

CHANCE AND PROVIDENCE. By W. G. Pollard. (Scribner's; \$3.50.)

The thesis of this book, by an American Episcopalian minister who is also Director of an Institute of Nuclear Studies, is that quantum physics helps us to an interpretation of the world which allows room for the scriptural idea of providence. Put like that it looks odd, and in fact I think Dr Pollard is wrong, yet I have seldom seen a book on this subject so intelligently argued or so stimulating.

Dr Pollard rejects the mechanistic view of the universe derived from classical physics, as incompatible with providence. If nature is a great machine running on apart from God, the scriptural idea of its total dependence on him becomes meaningless. God can act in nature only by occasional 'interventions', and effectively many Christians come to think of providence only in connection with human affairs.

Quantum physics leads us to ask whether all scientific explanation is not ultimately statistical. Under laboratory conditions prediction is possible, but in nature it will never be. We can say what possibilities are open, and give them their different weights, but in the end we have to ascribe the actual event to chance—which is as much as to say that no cause can be assigned. So far as I can see, quantum physics is merely used as an example, providing the key idea that only probabilities are known; the argument turns on the difference between the laboratory world in which all is controlled and the real world in which flow is never streamline, and ideal particles are not to be found. The comparison of scientific time, evenly flowing, with no real distinction in past and future, and historical time as we in fact experience it, is used to back up this contrast.

Scientific studies can only conclude then that no causes exist in the world, that all is chance; and intolerable as this is to the secular mind, it is just what a Christian expects. For only such a world of alternatives is totally responsive to the will of its creator. The cause why each particular event actually happens can only be God. This is not 'intervention', which would imply an extra scientific kind of factor upsetting the probability pattern rather than determining it. There is no empirical method of establishing the hand of God in history: where the gentiles have always seen chance, the religious mind recognizes providence.

This thesis of science and providence as alternative modes of description, in which only the latter extends to particular events, has an obvious application to the problem of free will and dependence, where Dr Pollard rightly shows that the paradox is pushed to its limits in scripture, and that any attempt to resolve it by playing down one part

or the other is vain. Finally he expresses this basic complementarity in terms of Buber's antithesis between the worlds of *I-Thou* and *I-it*, and shows that though science merely shows an *it*, the true scientist can achieve a relationship with nature which is genuinely *I-thou*.

Ultimately I suppose it must be experiment which decides whether nature is determined or not. Despite the extremely valuable points Dr Pollard makes, he fails to convince me. As a matter of historical fact, the idea of a determined nature is not the creation of mechanistic science, but derives from the common sense of Greek thought given classical form by Aristotle and fully accepted by the Christian middle ages (though never so as to exclude having to qualify with words like 'for the most part'). And the idea can be reconciled with the Semitic notion of the absolute providence of God not merely by reconsidering what we mean by 'cause' in nature (which is Dr Pollard's way, as it was Berkeley's), but by asking what we mean by calling God a cause, and showing that the word may be taken in such a sense that no rivalry with natural causes is possible (this is St Thomas's). I am not going to argue this alternative in detail. I prefer to end by warmly recommending this most interesting book.

LAURENCE BRIGHT, O.P.

SCIENCE AND METAPHYSICS. By J. Russell, s.j. (Newman Philosophy of Science Series, 1. Sheed and Ward; 2s. 6d.)

LIFE AND ITS ORIGIN. By P. G. Fothergill. (Newman Philosophy of Science Series, 2. Sheed and Ward; 3s. 6d.)

WHITEHEAD'S PHILOSOPHY OF PHYSICS. By L. Bright, o.p. (Newman Philosophy of Science Series, 3. Sheed and Ward; 2s. 6d.)

These are introductory essays intended for the scientist-philosopher. The first essay draws a comparison between science and metaphysics from the point of view of their respective method, object and conclusions, adding a summary note on the nature of metaphysics. The second outlines the principal scientific findings on the nature of life, and evaluates various interpretations of these findings in terms of the problem of the origin of living things. The third essay is an introduction to the neglected but by no means negligible contribution of Whitehead to a philosophy of physical science. Each essay contains a suitable bibliography to guide the reader in pursuing the investigation further.

Time was when metaphysics was granted pre-eminence over all the natural sciences. That the position is now reversed is no mere freak of history. It is the inevitable consequence of two vastly different methods of enquiry into the meaning of the universe. The exact, progressive, objectively controllable method peculiar to positive science lends itself to achieve a conformity of opinion on its conclusions and the practical