

the situation which resulted from his success in challenging the received view, that is what he did when he was himself faced with the need to legislate. Pelikan refers to his five topics as 'structural' and adverts in his opening words to the present crisis in Protestantism and Catholicism which are experiencing again the matter of Luther's crisis of 1520 described by Pelikan in the words he takes as the title of his book and his first lecture, *Spirit versus Structure*. The five issues are: Priesthood and Ministry, Monasticism, Infant Baptism, Church Law and Divine Law, The Sacramental System.

It was in 1520 that Luther became convinced that much of the system in which he had been brought up was a betrayal of the gospel of Jesus Christ. In *The Babylonian Captivity of the Church* he gave his reasons for believing that the papal Church was only a great man-made machine. He also wrote particular pieces dealing particularly with the five subjects. Pelikan quotes very perceptively and extensively from these sources, and yet provides us with a beautifully easy text. He says at the end of his first chapter: 'No trial oppressed Luther's spirit more often in his later years than this recognition that structure was inevitable, combined as the recognition was with a candid awareness that the institutions now being erected were not necessarily superior to those which had (often against Luther's advice) been swept away.' This is not to say that Luther ever regretted his own initiative; it was entirely Spirit-inspired, and he could never have denied the insights so many of which have in fact been taken up widely since his time by other Christians. He really did believe, as Pelikan quotes that: 'While I was drinking beer, God reformed the Church'—though it is a very dangerous quotation for us,

since no other self-confessed 'beer-drinking' public figure can have done, written, achieved and suffered so much.

But the organizational problems remained. Organizational strategy was not Luther's strong point, and above all not the political tactics. But his thought on these points always comes strongly from his biblical and theological insights, and is still important for us today. On infant baptism Luther is perhaps weakest—or strongest; he takes refuge in the fundamental ambivalence of his theology (of all theology?). The sacraments achieve nothing automatically, but only through the faith of the recipient, so surely infant baptism is a nonsense. Not so, because all sacraments are exclusively the work of God, not our work; in infant baptism God is working as he wishes to.

This is an admirable little book and is a good antidote to the fulsome books which Luther scholars still seem to think they should write, *con amore*. Let us end with a useful quotation, from the Apology of the Augsburg Confession, ten years after Luther had burnt the book of Canon Law, a quotation the author uses to show how Luther himself was coping with the fundamental organizational problems: 'We gladly keep the old traditions set up in the Church because they are useful and promote tranquillity, and we put the best construction on them, excluding the opinion which holds that they justify. Our enemies accuse us of abolishing good ordinances and Church discipline. We can truthfully claim that in our churches the public liturgy is more decent than in theirs, and if you look at it correctly we are more faithful to the canons than our opponents are.' This was not an empty boast.

JOHN M. TODD

**EMPEDOCLES' COSMIC CYCLE**, by D. O'Brien. *Cambridge University Press*, 1969. 459 pp. £5.

Dr O'Brien's work on Empedocles has been awaited with great interest by students of Ancient Philosophy who have found references to it in Guthrie's *History of Greek Philosophy*, Vol. II, and in Dr O'Brien's own articles in the *Journal for Hellenic Studies* for 1968. They will not be disappointed. This is a notable contribution to the study of one of the most important of the Presocratic philosophers.

The physical theories of Empedocles have always presented difficulties. He clearly introduced the theory of the four elements, or 'roots' as he called them, and maintained that these

were united by Love and separated by Strife, but the exact details of the process have been the subject of controversy. Most scholars have accepted that there were four phases. Initially all four elements were united by Love in the Sphere (this stage we shall call A). There followed a period of transition in which Strife increased in power (B), and this led to a state of complete separation dominated by Strife (C), after which there came a period (D) in which the elements were united again under the increasing influence of Love, until Stage A was reached, and the whole process began again.

This has been generally accepted, although as Dr O'Brien points out in his Chapter 8, some scholars have denied the existence of this cyclic process. He satisfactorily demolishes the arguments put forward on this side, and confidently tackles the problems which remain. He begins by setting forth his proposed reconstruction of the theory, and then in successive chapters sets forth the arguments on which he bases his conclusions. He examines in considerable detail the relevant fragments of Empedocles, and the discussions in ancient authorities, notably Aristotle. He also with judicious clarity summarizes and evaluates the interpretations of modern scholars. The nature of his argument inevitably involves constant reference to Greek texts, and so will restrict the usefulness of his work to those who can read Empedocles and the ancient authorities in the original language.

In his second chapter Dr O'Brien considers the problem of the place of rest and movement in the cycle. The most usually accepted view has been that in Stages A and C there was no movement. According to O'Brien this has been based on a misunderstanding of Aristotle's comments on the subject, and he concludes that there was only one period of rest in the cycle, namely, Stage A when Love had united all the elements into one in the Sphere. The supremacy of Strife will consequently be only a momentary interlude between Stages B and D. This view may surprise some, but the reasoning is cogent. Dr O'Brien's reminder that rest and unity were grouped together by Empedocles' contemporaries, the Pythagoreans, is an additional argument in favour of his theory.

During Stage B when the influence of Strife is increasing, the speed of change increases in direct proportion to the growing power of Strife, and correspondingly in Stage D the speed decreases under the influence of Love until complete rest and unity are achieved. The duration of the Sphere (Stage A) is taken by the author as being equal to the duration of all the other stages put together. This has not been the generally accepted view, partly because some interpreters have felt that this would in a sense make Strife rather less than equal in power to Love. Dr O'Brien maintains, however, that Strife may be said to preside over *all* movement, and so its reign effectively lasts as long as that of Love. This is a very attractive theory, but Dr O'Brien is on less sure ground when he speculates about the possible length

of these two major periods. He suggests (p. 89) that 'the full exile of a *daimon* for thirty thousand seasons would last from the end of a Sphere to the beginning of the next, for all the time, that is, when Strife is keeping the elements separate and moving'. He is here making use of fr. 115, where Empedocles describes the fate of the *daimones* who have 'defiled their dear limbs with bloodshed . . .'. Surely the fact that the *daimones* have separate identities, and the fact that they must have been in circumstances in which bloodshed was possible, indicate that the *daimones* could only have sinned when Stage B was fairly far advanced. It is more probable that the period of thirty thousand seasons was merely a fraction, and quite possibly a small fraction, of the period which intervenes between the periods of rest when Love is supreme. For analogous reasons it is improbable that Empedocles would have equated the rule of Love with the Golden Age.

In his discussion of the place and shape of Love and Strife, Dr O'Brien argues plausibly that basically Love is looked on as a solid sphere which is at the centre of things during the rule of Strife, but extends outwards while its power is increasing. Strife on the other hand is envisaged as a hollow sphere at the circumference whose influence spreads inwards as it increases. Most probably the elements when fully separated would be arranged in concentric spheres.

There is a neat consistency about Dr O'Brien's reconstruction of Empedocles' thought which is extremely attractive, and this simplicity and consistency is also to be found in his account of the zoogonical processes. He maintains that when Love is increasing there arise, first of all, separate limbs and monsters, then men and women, and lastly 'whole-natured creatures'. During the period of increasing Strife, that in which our own world occurs, the process would be exactly reversed. He makes the interesting comment (p. 199), 'The peculiarity of this scheme is that it allows for a further stage beyond men and women. . . . It is indeed only in the most recent times, so far as I am aware, that Empedocles has found those who would to some extent agree with him, notably the late Teilhard de Chardin.'

The main part of the work is rounded off with a conclusion in which Dr O'Brien discusses Empedocles' Philosophical and Religious Significance. He neatly sets Empedocles in his context as a successor of Parmenides, and

as an influence on Plato. This section is brief but adequate, particularly as Empedocles' influence on Plato is discussed at relevant points in the main body of the text.

Dr O'Brien completes his study with some valuable extended notes on points of particular difficulty, and with a masterful bibliography which 'aims to include all books and articles devoted exclusively to Empedocles from Sturz's edition in 1805, and to err on the side of generosity in including pages on Empedocles from other works'. This will be invaluable to all scholars working in this field. It is worth

noting that the list contains over five hundred items—rather more than the number of the surviving lines of Empedocles' poems.

There is perhaps one notable omission in the work. One feels, with Aristotle, that something is needed to explain the alternation between Love and Strife. Empedocles merely talks rather vaguely of a 'broad Oath'. A fuller discussion of this would have been helpful. But after all, Dr O'Brien has not set out to discuss the whole of Empedocles' thought. We hope that he may deal with this and other problems in a further book. W. R. CHALMERS

**CONCERNING TEILHARD, AND OTHER WRITINGS ON SCIENCE AND RELIGION, by Bernard Towers. Collins, London, 1969. 254 pp. 36s.**

'There are very few scientists who concern themselves with the problems of the relation of theology to science. This is hardly surprising, since no one can hope to be expert in all the disciplines required, not only theology and science but also philosophy and history, and so one inevitably lays oneself open to expert criticism. Scientific work today is so demanding that it can easily absorb all one's energies, and if one spends some precious time writing about science and religion one is likely to be regarded as a crank by one's fellow scientists and as a dangerous revolutionary by one's fellow Christians. There is the further difficulty that it is all too easy to write in such general terms as to be virtually meaningless, yet if one becomes technical and specific the result may be unreadable to all but a few experts.

Nevertheless, in spite of all these difficulties, it is a field that deserves serious and sustained attention because it is not too much to say that the present ineffectiveness of the Church is largely due to its failure to take science seriously, leaving it no alternative but to try to live on the long-vanished capital of the past. As a direct result of this, science does not take the Church seriously and so many of the abuses of science go unchecked.

Any serious writing in the field of religion and science is thus assured of a welcome, especially when it comes from the pen of Dr Towers, a distinguished anatomist who is well known for his writings on Teilhard, evolution and on medico-moral problems. The present book is a collection of essays and lectures on subjects ranging from Jung and Teilhard, teleology and the anatomist, and human embryology to freedom and causality in biology, science and the philosophy of nature and commentaries on the views of Leach and

Koestler. The papers were originally addressed to a variety of audiences including the well-known broadcast reply to Medawar's attack on Teilhard and lectures to societies for the history and philosophy of science and to student conferences, as well as articles in *Blackfriars*, *The Tablet*, *The Month* and other journals. The book is a mine of fascinating and valuable information and is so well written that it is difficult to put down. It is certainly a book that everyone concerned with these problems must read.

The book inevitably has the disadvantages inherent in a collection of writings for different purposes at different times. The level of writing naturally varies according to the original audience, whether a lecture to a learned society or a radio broadcast, there is some repetition and some of the essays are dated. In some cases they are admirable for their original purpose of stimulating discussion at a conference, but the subjects deserve more systematic treatment, with the arguments on both sides carefully weighed and references to previous discussions, if they are to be presented in book form. Other essays, in particular that on Darwin and the Origin of Species, are fully documented. It would have been better if the material could have been re-written and organized into a series of up-to-date studies of the important topics in the field. This is a task that Dr Towers is eminently well qualified to perform.

Until such a book is available, one will return again and again to the present volume. One of its many valuable features is its insistence that evolution is now to be accepted as a fact, and that the arguments of half a century ago are quite outdated. This was firmly grasped by Teilhard, whose vision of the development of man from lithosphere and