

commissions for drafting the seminary legislation, were: Julius Pavese, Archbishop of Sorrento; Bartholomew of the Martyrs, Archbishop of Braga, Primate of all Spain and Portugal; Giles Foscarari (not Foscarini as on p. 130, n. 46.) Bishop of Modena who counselled the Pope to approve of the Society of Jesus; Peter Bertano, Bishop of Fano; John Jerome Trevisano, Patriarch of Venice; and of the seven theologians sent by the Pope there were four Dominicans.

The Twenty-third Session of the Council of Trent remains, indeed, the fundamental law of the Church for clerical training, though it has since been revised in various respects by the Code of Canon Law and other enactments of the Holy See. The thesis would have been of greater value if the continuity had been shown, and a comparative study made between the old legislation and the new.

AMBROSE FARRELL, O.P.

PERSONAL KNOWLEDGE. By Michael Polanyi. (Routledge and Kegan Paul; 42s.)

Professor Polanyi has argued in various publications, and now in this immense book, based on his Gifford lectures for 1951-2, that the standard of detached objectivity which obtains in science is both false and, by reason of the prestige of science, a danger to all other forms of knowledge. He insists instead that the personal qualities of the knower, his passionate engagement in the task of knowing, must be taken into account when the meaning of our knowledge is assessed. This personal factor is of the essence of knowledge, not an accidental accompaniment.

To the scientist this is bound to seem paradoxical. His very bread and butter depends on his having eliminated all that was personal to him before he submitted his results to the appropriate learned journal. Again, those who support the idea of personal knowledge in other fields usually seek to establish it by *contrast* with science, which is the realm of 'technique' and 'primary reflection' for Marcel, the 'it' as opposed to 'thou' for Buber. Polanyi's originality lies in his attempt to overcome this contrast by raising scientific values rather than reducing others.

Perhaps no other philosopher of science would entirely agree with Polanyi, but they are coming nearer to him as the tide of positivism recedes. He is insisting that in scientific discovery a new pattern is there to be apprehended, at first dimly, until at the end of the research it is clear. The rationality of nature is there waiting to reveal itself, to be expressed by our explanations. Now the positivist would have none of this. Scientific theory was a machine to predict new facts, or a convenient summary of existing facts. Such ideas are natural,

replies Polanyi, once you have eliminated the personal judgement that fitted facts to the new pattern of explanation. Equally natural is the behaviourist view that an organism can be fully understood in terms of its elements, once you have forgotten that the investigator must have known it as an organism before he started to investigate it as such. False ideals of objectivity always produce false philosophy.

I have to admit that this short account of some basic features of Polanyi's thought is largely based on my previous knowledge of it. Nor can I think I am alone among his admirers in finding myself disconcerted by this new attempt to express his thought. But it may not be irrelevant to suggest that admirers of Whitehead were probably just as disconcerted by an earlier set of Gifford lectures. The pressure of ideas which weighs down *Process and Reality* must have made it as difficult to read on its first appearance, and likewise baffled any reviewer without some ten thousand words at his disposal.

LAURENCE BRIGHT, O.P.

THE PHYSICAL WORLD OF THE GREEKS. By S. Sambursky. Translated from the Hebrew by Merton Dagut. (Routledge and Kegan Paul; 25s.)

Professor Sambursky is a distinguished physicist who has been interested for many years in the way in which the Greeks saw and interpreted the physical world around them. The present work is a collection of essays written, as the author tells us, as a kind of commentary of the original Greek texts. It is emphatically not a conventional history of science. In fact, the reader who is unfamiliar with the historical background will be at a disadvantage; chronology is often thrown to the winds and the influence of other civilizations ignored. The author sometimes succumbs to the besetting temptation to practising scientists, to look at the history of their subject in the light of modern discoveries; and occasionally his personal background betrays itself, as in his complete failure to appreciate the medieval contribution.

Having made these criticisms I must hasten to say that for all its faults this book is an outstanding contribution to our understanding of Greek science. Its great merit lies in its being written with the insight which only a practising physicist can bring to the subject. Few authors dare to tackle Greek science at this deep conceptual level, and fewer still have such a complete mastery of the material at their disposal. Read critically, this excellently translated and produced book will bring to life a subject which can all too easily be left for dead.

MICHAEL HOSKIN