

there was never any doubt in Swedenborg's mind as to the relation of science and religion—regardless of what the prevailing relation may have been between the more vocal scientists and the religionists of his day. In the *Economy* he said: "The truth of nature, and the truth of revelation,, however separate, are never at variance" (EAK II. 217).

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BOOK REVIEW

NATURE AND THE GREEKS, by Erwin Schrödinger. Shearman Lectures delivered at University College, London, in May 1948, Cambridge 1954, 97 pp.; price \$2.00.

Readers may remember that a book by this author was reviewed in the April 1954 issue of the *NEW PHILOSOPHY*. It is notable that many statements of that review could be applied to the book to be considered here.

Modern authors who write about the scientific and philosophic thought of today more often than not devote part of their labors to analyzing the basis of modern thought in ancient writings. Schrödinger, being no exception, offers the reason that he "had been swept along unwittingly, as happens so often, by a trend of thought rooted somehow in the intellectual situation of our time" (p. 2). Assuming that a trend exists, he then proceeds to ask: "How did it originate? what were its causes? and what does it really mean?" (p. 3). Two situations are offered in answer to these questions.

Prior to the seventeenth century, the dogmas of the Christian churches had become rigid and inflexible. Scientific research was frowned upon, especially when popular ideas and religious tenets were contradicted by new scientific ideas. With the advent of religious and scientific freedom, a growing antagonism arose between religion and science; and it is the contention of the author that this antagonism should lead to a re-examination of the basic science and philosophy (i.e., Greek) which underlies our present-day thought. If any error exists, then we may find it at its source.

The second situation which is responsible for our retrospection is the present crisis of modern science. With the emergence of physics, accompanied by quantum theory and the theory of rela-

tivity, many old theories about the universe and the laws of nature were shattered. New answers have since been offered, but each is only partly satisfactory and leaves wide gaps to be filled. Thence the dilemma. Does this dilemma arise because of some prejudice in the roots of modern science? Schrödinger thinks that it may be. Again he proposes a study of the possible source of such a prejudice in Greek philosophy for he states that "a prejudice is more easily detected in the primitive, ingenuous form in which it first arises than as the sophisticated, ossified dogma it is apt to become later" (p. 16).

The analysis of Greek ideas and modern science produces some striking statements which reflect prevailing ideas of today. There is a quotation (p. 18) from John Burnet's *Early Greek Philosophy* stating: "It is an adequate description of science to say that it is 'thinking about the world in a Greek way.' That is why science has never existed except among peoples who came under the influence of Greece." The reader may comment on this statement as he sees fit, but I think he will agree with the Greek hypothesis that "the display of nature can be understood" (p. 88). In his following remarks, the author refers to positivism and says that "though the positivist view ostensibly contradicts the 'understandability of Nature,' it is certainly not a return to the superstitious and magical outlook of yore; quite the contrary, from physics it expels the notion of force, the most dangerous relic of animism in science" (p. 89). Here is reference to the idea of the universe as being a perpetual clock.

And again, when discussing Greek ideas which say that "life must have come out of the water. Our ancestors were fishes" (p. 65), the author proceeds to say that "all this coincides so remarkably with modern findings, and is so intrinsically sound, that one regrets the romantic details that are added." The ideas are romantic indeed, but are more akin to modern science-fiction than to science.

At first the conflict between science and religion was inconsequential. But "after the rebirth of science in the seventeenth century, it came to matter a lot" (p. 5). As religion became rigid, science more and more changed and even disfigured the literal teachings of the Word (the teachings of man's origin, the purpose of creation, the laws of nature). Science wrested more and more from religion until they were entirely separate. "The comparative truce we witness today, at least among cultured people, was not

reached by setting in harmony with one another the two kinds of outlook . . . but rather by a resolve to ignore each other, little short of contempt" (p. 9).

The present crisis of science is due principally to two causes. "Quantum theory and the theory of relativity started to set the foundations of science trembling" (p. 13). The theory of relativity shows that the distinction between a particle and its arena of action is not necessary, while quantum theory states that it is not necessary to be able to distinguish between two particles. These theories severely jolted a science whose foundations were laid in the seventeenth century by Galileo and Newton.

According to Schrödinger, science has one definite virtue. If there is a phenomenon that cannot be explained, or a theory is incomplete, then this gap remains until a reasonable explanation is made. "Instead of filling a gap by guesswork, genuine science prefers to put up with it; and this, not so much from conscientious scruples about telling lies, as from the consideration that, however irksome the gap may be, its obliteration by a fake removes the urge to seek after a tenable answer" (p. 6). Science is quite ready to listen to new theories or to accept a new one if it proves better than a previous theory. The thought occurs that this attitude of science is quite different from that of religion, which has divided into many sects, each believing in a different doctrine but refusing to investigate the other sects to see if their beliefs are more tenable. Being chiefly materialistic, men say that religion is mostly incomprehensible and is a matter of (blind) faith. Along with man's denial of revelation, it is a small wonder, then, that the present conflict between science and religion exists.

Pure reason was generally frowned upon by scientists in the nineteenth century, but in the twentieth it was upheld by Eddington and used effectively by Einstein. The Greeks initiated the formal study of the relation of the part played by the senses to that of the intellect. They observed that "the senses occasionally deceive us" (p. 21). The question then arose: "Is our attempted world picture based on sense perceptions alone? What role does reason play in its construction?" (p. 22). Nevertheless, some of the Greeks held that all that which is used by the intellect was first obtained through the senses. "Protagoras regarded sense perceptions as the only things that really existed" (p. 28).

Philosophers of the Milesian school were convinced that "the

world around them was something that could be understood" (p. 55). Scientists of today also believe this, even though they realize how much there is to learn. Many ideas of the ancients were later proved incorrect but their basic approach to science has often been carried into the present. Some of their ideas were no more naïve than those of the present.

There is a definite tendency today to regard the soul as a material substance. We may accept the "basic postulate of Nature being understandable, provided that at any moment the subsequent motion of the atoms is uniquely determined by their present configuration and state of motion. Then the situation reached at any moment engenders the necessity of the following one, and this the next following one, and so on forever" (p. 77). This may apply very well to inert material substance, but when applied to man, we can see the doctrine of predestination. It completely ignores man's free will. In expressing the attitude of his contemporaries, the author says: "The antinomy is as unsolved today as it was three centuries ago" (p. 78).

In coming to a conclusion about the present state of science the author believes that objective observation is a necessary feature, because "we do not belong to this material world that science has constructed for us" (p. 93). But the author and his fellow scientists seem unaware that the purpose of creation is for the sake of man; and therefore I believe that he should not push himself completely out of the picture. If man is removed, so is the purpose of creation; and therefore science has suffered. This is little realized by scientists of today.

"The scientific world-view contains in itself no ethical values, no aesthetical values, not a word about our ultimate scope or destination, and no God, if you please. Whence came I, whither go I?" (p. 95). Perhaps the crisis of modern science exists because men realize they have no unifying philosophy which relates ethics and aesthetics to science and man's destiny. Men should have the humility thoroughly to examine their own ideas; but they seem all too ready to look for imperfections in an imperfect system of thought which is over two thousand years old. To borrow a solution from the previous review of this author: "just as there was a new orientation brought about by the First Advent which allowed men to make great strides in science, so now there is a need for a new review based on the revelation for the New Church."

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