

tained in Swedenborg's works, there will be need for the co-operation of those writers in the Church who are interested in the field to be examined. Literary contributions are therefore invited and will receive careful consideration.

BOOK REVIEW

MAN, THE CHEMICAL MACHINE. By Ernest Borek. Columbia University Press. New York, New York, Cloth, pp. 219; price, \$3.00.

This book is written by a biochemist teacher-research worker with the purpose of describing in popular terms what is known today about the chemical structure and chemical mechanism of living things, particularly the human body. Although it is not the only book of its kind, as the book jacket says, or even the best, *Man, the Chemical Machine* is a fairly interesting account of the chemistry of the living body, as known to modern science.

Our interest in this book lies not so much in its technical features as in the fact that it is loaded throughout with atheistic, naturalistic propaganda. This is covered over in spots with a veneer of interesting, scientific information. In some places, the veneer is transparent, and the author's bias shows through for what it is, namely, a scientifically unsupported naturalistic prejudice.

Probably Dr. Borek did not intentionally camouflage his naturalism, although he does at first give that impression. Actually, toward the end of the book, he presents a completely unvarnished plea for naturalism. In fact, he goes much further than that and attacks as unreasonable and unscientific those scientists who express their belief in truth beyond nature. In doing this, he reveals a naive logical inconsistency which is surprisingly common among naturalists, namely, the conviction that the philosophical assumptions of naturalism or materialism are consistent with, and a proper part of, the objective detachment of the scientist, whereas the assumptions of other schools of philosophy, such as dualism, are absolutely inconsistent with scientific objectivity.

Thus Dr. Borek ridicules the dualism of mind and matter espoused by the "spiritual descendants of Descartes" on the ground that "the chemist can correlate the gross chemical functions

[of the brain] and such subtle entities as thought and personality." Precisely what Dr. Borek means here by correlation is not clear; but in any event the implication is misleading. No one has ever given a scientific explanation of thought, and to imply otherwise is either ignorant or dishonest.

As an example of the naive inconsistency of Dr. Borek's thinking, consider the following passages, in which he criticizes scientists who engage in metaphysical speculation. "It is presumptuous for scientists to turn into prophets on the basis of their scientific experience." "Scientists should leave behind their mantles of authority when they abandon the realms explored or explorable by science."

Now observe that Dr. Borek himself disregards his own advice a few paragraphs earlier in his book where he clearly prophesies "on the basis of [his] scientific experience." "Since we know today that the source of energy for the brain is chemical and that it relays its messages through physicochemical means, it is almost an article of *faith* (*sic!*) that some day we shall find that memory, thought, and will are molecular mechanisms as well."

The following may serve as further examples of scientifically unproven, materialistic claims which Dr. Borek has insinuated into the otherwise scientific context of his book. While discussing the chemistry of such things as enzymes, vitamins, proteins, genes and the brain, he repeatedly denounces the principle of vitalism, stating, for example, that "animated spirits have become scientific antiques"; and rejoicing at the disappearance of the "paralyzing awe" with which vitalistic scientists once beheld a living thing. Later, in his treatment of enzyme chemistry, life is defined merely as "a system of cooperating enzyme reactions." Again, he says, ". . . with recent findings, the biochemist . . . has completed the evidence for the mechanistic concept of life." Further, in a discussion of genes, these remarkable statements appear: "A microbe or a man is a biochemical potpourri, a summation of . . . haphazard mutation." ". . . the difference between a musical genius and an ordinary mortal may very well be due to but a slight difference in the amino acid content of a few of their genes."

A truly objective scientific scrutiny, of course, requires that these claims be recognized as unfounded assertions; or, in effect, unproved assumptions.

It is worthwhile to consider Dr. Borek's attack upon mysticism, in which, apparently, he includes religious faith, along with anything else outside of science or materialistic philosophy. "There are some scientists," he says, "who at the end of their career enumerate all that is still unknown and, perhaps, unknowable. On the basis of the enormous gaps in our knowledge they exhort us to faith. Ignorance of natural phenomena is an unsteady pillar for the edifice of faith. It is an ephemeral stanchion at best. The mystery of yesterday is the commonplace of today: the unknown of now will be explored tomorrow. Three hundred years ago the mechanism of fire was just as baffling as the workings of the human mind still are today . . . should men have been exhorted to faith in those days on the basis of the mystic wonder of a fire?"

Let us consider this misleading argument. Admittedly, ignorance of natural phenomena is an unsteady support for faith. And it is unfortunately true that some faiths have sought support on such grounds. A truly rational faith, however, seeks support, not in ignorance of natural phenomena, but through confirmation in a rational philosophy which is consistent with the findings of science, including her negative findings. Thus, it is a principle of faith that the mind is a spiritual organ, above nature. If this principle is true, science will never discover the workings of the mind; and its failure to do so to date is evidence, albeit negative evidence, to the intellectual respectability of that faith.

Continuing his attack upon mysticism, Dr. Borek condemns the views of a really great scientist and philosopher, Pierre Lecomte du Nouy: "It is odd how readily a few scientists abandon life-long habits of buttressed reasoning and cautious utterance once they leave their circumscribed fields and take a fling in the wider realms of mysticism. For example, the distinguished physical chemist, the late Pierre Lecomte du Nouy wrote in *The Road to Reason*: 'There is an element in the great mystics, the saints, the prophets, whose influence has been felt for centuries, which escapes mere intelligence. We do not admit physical miracles, because they are outside the actual framework of our knowledge; yet we admit the reality of Joan of Arc, who represents a real and confounding miracle.' This is a fallacy of partial truth. Of course Saint Joan is a real and confounding miracle. But so was her lowest yeoman a miracle, or, indeed, so was the horse she rode. The miracle is not a specific life. The miracle is any life!"

It is not clear why Dr. Borek chose from du Nouy's book this particular selection which, out of context, carries no hint of the powerful philosophical argument against materialism which *The Road to Reason* presents. But it is ironic indeed that Dr. Borek's criticism of du Nouy for having abandoned "buttressed reasoning and cautious utterance" applies more aptly to Dr. Borek's own, unfounded naturalistic assertions.

This reviewer is conscious of having possibly committed an error of exaggeration; of having made too much of a small thing in so strongly criticizing Dr. Borek's little book. The justification for such criticism is expressed in the following quotation from the same book which Dr. Borek criticized, namely, du Nouy's *Road to Reason*. "Unfortunately, certain scientists who profess to scorn philosophy and to despise metaphysics think that they can suppress the objects of metaphysics by showing that these objects—God and the soul amongst others—have no place in [an explanation of the universe] . . . we should not blame them for reasoning falsely when dealing with non-scientific matters, for that is not their field, and the results can only harm themselves. But when they abuse the prestige that their purely technical work has given them and attempt to spread these ideas among the young, one is justified in criticizing their anti-scientific spirit and in deploring the fact that their arguments contain elements of passion that no more belong in the embryo of the mathematical scheme they defend than do the convictions they reproach others for having."

CHARLES S. COLE

BOOK NOTES

ALICE IN BIBLE LAND, by George Willis; pp. 54; price \$2.75.

A series of conversations in which Alice asks inconvenient questions on theology. She insists that her grandfather is in the grave. Her grandmother, shocked, says he is in heaven. But Alice insists he is in the grave; for every Sunday they recite the creed which says that Jesus will come again and that there will then be a resurrection of bodies. Her grandmother is bothered and calls in the pastor. But he fares no better, and after facing questions which he cannot answer, he pulls out his watch and says, "My goodness, I had no idea it was so late. I must hurry away." A. A.