

power among sovereign states." These "hinges" must "be set straight by sustained political thought and political action. They demand precision work, not sweeps of rhetoric."

Perhaps other readers who see more clearly than I will find in Mr. Ascoli's pages more suggestions than I do of

the political action that should be taken. All readers will find "sweeps" of excellent rhetoric.

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Why Physicists Talk as They Do

THE UNIVERSE AND DR. EINSTEIN. By Lincoln Barnett. With a Foreword by Albert Einstein. New York: William Sloane Assoc. 1949. 127 pp. \$2.50.

Reviewed by WALDEMAR KAEMPFERT

UNFORTUNATELY Mr. Barnett was not even born when Einstein enunciated the special theory of relativity in 1905, and he was only in his teens when mathematical physicists made it plain that a house or a tree is only a collection of probability waves. We needed Mr. Barnett's book a generation ago more than we need it now. Late though it may be in coming, this explanation of the fundamentals of modern physics is worth the attention of those who still wonder why cosmological and nuclear physicists talk as they do and why all the cocksureness that characterized nineteenth-century physics has vanished.

"Relativity, over and above its scientific import, comprises a major philosophical system which augments and illumines the reflections of the great epistemologists—Locke, Berkeley, and Hume," says Mr. Barnett in striking the keynote of his book. There is only one way to popularize relativity, and that is to interpret it as a philosophical system. This Mr. Barnett does, ingeniously and interestingly. Like the objective reporter that he is, he contributes no philosophic theories of his own but contents himself with following Herman Weyl ("Mind and Nature"), Einstein and Infeld ("The Evolution of Physics"), Jeans ("The Mysterious Universe"), and Eddington, who, in this reviewer's opinion, stands unsurpassed as a popularizer of epistemology.

It must be apparent to an intelligent reader of Mr. Barnett's book that, like the atom, the universe is a hypothesis and that there must be an infinite number of possible pictures of space. Which is the right picture? It is the business of the mathematical physicist to select the one that conforms best with experience. At one extreme we had Einstein's original conception of a universe, which was full of matter; at the other extreme we had De Sitter's universe, which

was virtually empty. In between lies the expanding universe generally accepted by cosmologists—a universe compared with which the Einsteinian original is as obsolete as a muzzle-loading musket.

As matters stand, it is impossible to reconcile the universe with the atom. Each must be dealt with in accordance with special mathematical techniques. Conclusions reached about the atom (or individual stars for that matter) do not apply to the universe. If a reconciliation is ever brought about not only will gravitation and electromagnetism be welded together, just as electricity and magnetism were welded after Faraday, but we shall have in a few, simple statements, grand because they are few and simple, a picture of the universe compared with which ours will seem like that of a primitive savage. Mr. Barnett shows what the problem of reconciliation involves.

When cause and effect are abolished, as they have been in physics, when laws of nature turn out to be man-made statements in which billions of events are averaged, a thinking man finds it hard to decide in what fundamentals he ought to believe. There is obviously room for the mystic, the poet, and the priest, though it is hard to see why theologians derive so much comfort from the finding that the creation of the universe is just an accident. Mr. Barnett does not shrink from the task of ex-

plaining why the keen reasoning of physicists has forced us to ask the old questions: "What does it all mean? Why are we here?" It is not the function of science to answer, nor does Mr. Barnett attempt an answer. Yet, as he shows, we restate the questions in the scientific language of today, only to discover that we are part of the universe that we seek to understand and that we are not likely to improve on St. Paul when he said, "What is seen is made out of things which do not appear." Mr. Barnett rightly leaves his readers with more than electrons, protons, and neutrons or a closed universe to contemplate, leaves them with the probability that the mystic knows as much about "reality" as the mathematical physicist and that the man who is exalted by a Beethoven symphony has experienced something that physical science tries in vain to pin down in equations.

A professional friend of this reviewer's remarked: "When I don't know anything about a subject I write a book about it." He meant, of course, that an intelligent, industrious man can convert his ignorance into an asset. Mr. Barnett, once a reporter and later a writer on the staff of *Life*, proves the point in his own admirable way. Here is a man who has no more than the usual mathematical equipment of a college graduate but who knows how to slip behind the equations of relativity and inspect the philosophical scaffold to which they are fastened like the painted scenery of a play. Gifted as he is with a penetrating mind, a love of good writing, and a sense of style, he interprets what he sees with a simplicity and clarity that few popularizers of science can match. It would be rash to say that his is the best of all presentations of relativity and of some of the more recondite phases of nuclear physics, but it certainly ranks with the best.



What Now?

THE OPEN SELF. By Charles Morris. New York: Prentice-Hall, Inc. 1948. 179 pp. \$3.

Reviewed by MORROE BERGER

IN 1932, a book appeared entitled "The American Jitters" and everyone can guess that it was about the depression. Today a depression still worries us, but the latest American jitters are over the atomic bomb. ("We are on the threshold of a new era," an endless series of books tells us.) In an effort to direct our convulsions into effective social action, Charles Morris, philosopher and semanticist at the University of Chicago, has written "The Open Self."

Mr. Morris is not afraid to meet an issue head-on. Under new symbols, he discusses such ancient questions as: Can man shape his own future? Must we reform the individual before we can reform society? To what extent are our personalities determined by our physiques? What is the best way of life for mankind? As one who is abreast of contemporary social psychology, sociology, and psychiatry, he does not ask these questions in such crude form. The general reader will nevertheless recognize them in their more modern scientific dress.

The main theme in this book is what man shall make of himself. "We have uncovered power never dreamed of by the wildest wizard," the author says. "We now must determine the human ends for which this power is to be used if we are not to destroy ourselves." Only by deliberate planning for an "open society" which will maintain human diversity and individual freedom can we avoid the catastrophe of war and totalitarianism. Man is now a "conscious self-maker and culture-maker," and the self and culture at which he aims is the "open society of open selves." This ideal, Mr. Morris asserts, is one that has fired Americans since the country's birth.

While establishing the validity or the desirability of this point of view, Mr. Morris makes some interesting excursions into modern social science and psychology. He culls from the sciences of man those concepts and findings he needs to buttress his claims. In one chapter he gives an excellent review of the disputed subject of semantics. He also outlines a series of "philosophies of life" and tries to associate men's preferences for one or another with their physiques or physical natures. And he surveys the contributions to the study of person-



ality and culture (or society) made by his own teacher, the late George H. Mead, and by the neo-Freudians, Erich Fromm and Karen Horney.

Though he fully admits the influence of group culture in the formation of individual personality, Mr. Morris properly insists that the perpetuation of a culture itself depends upon the individuals who find it satisfying. He feels that with our present knowledge of the way in which cultures are built up we can at last break into the circle, culture—personality—culture, by encouraging only those group practices and ideals which develop open selves. In this way we can build new personalities, which will build new cultural institutions, which in turn will shape new individuals. To Mr. Morris the goal of this process is not the imposition of a single pattern of personality upon all of us but to permit a kind and degree of unity that will foster diversity of a wholesome nature.

The aims set forth in "The Open Self" are those which liberals have professed for many generations. You will probably find yourself in agreement with most of them, since they are quite broad. But readers who are looking for a body of specific recommendations for the attainment of these objectives will be disappointed, for Mr. Morris does not discuss the actual techniques by which the open self and the open society are to be realized. As a philosopher, he is primarily concerned with stating the general characteristics of the good society, and with establishing appropriate goals.

"The Open Self," as befits a book by a student of language, is written clearly and in good prose but with an occasional attempt to wax poetic, usually at the beginning and end of a chapter. These poetic flights are not likely to elevate the spirit of the reader quite so much as that of the author. The poetry reminds one of Morris R. Cohen's remark about the chaplain's prayer at the opening of a legislative session or a political convention: it has so little effect upon what follows.

Non-Belligerent

SWEDEN: CHAMPION OF PEACE. By David Hinshaw. New York: G. P. Putnam's Sons. 1949. 309 pp. \$4.

Reviewed by ERIK SJÖGREN

IT is a healthy sign in a sick world that among writers and the reading public alike the interest in real interpretations of foreign cultures is steadily growing; thus horizons are broadened for the observer and those with whom he shares his views, while for the people under scrutiny it is mostly beneficial, though sometimes surprising, to "see ourselves as others see us."

In making his study of Sweden, David Hinshaw intended neither to define her national character nor to compile a handbook of information. Rather, he wished to make an interpretation that would prove a point and convincingly express a theme: that peace, like charity, begins at home.

That Sweden's labor relations are exceptionally harmonious, that the cooperative movement counts a third of the population as members, that in Sweden a murderer is generally sent to a mental institution, that the country's gifts to war-ravaged nations proportionately match American ERP contributions; such facts combined for the author in a pattern of human relations in which mutual helpfulness and the quality of mercy appeared dominant. Thus he became convinced that the Swede is essentially non-belligerent, has a real will to peace, and this fact—not "good luck," as his Swedish friends insist—he sees as the explanation of the 134 years of unbroken peace.

To render them the more valid, Mr. Hinshaw rests his results not only on his own observations, but also on a brief interpretation of Swedish history, in which the change from warlike to pacific ideals is seen to have come with the ascendance to the throne of an ex-warrior, the first Bernadotte. But only very recent history has provided a real test of the policy he inaugurated, the sustained pressure from all sides during World War II. Mr. Hinshaw's account of those years is factual as well as inclusive, and in his judgment Sweden did, indeed, remain neutral; the concessions made never went beyond what emergency demanded, and at no time was any degree of independence yielded.

This is true, to the best of my belief, but it is hardly the whole truth. Can it, and should it, make the individual feel any happier about the