

philosophy of experience in a phenomenological-existential dress. The principal design which underlies the work is dual. Schrag is convinced, first, that the obscurities are accidental accompaniments rather than essential ingredients of the philosophical viewpoint of phenomenology and existentialism. Coupled with this belief is the conviction that the question about being can be reformulated in more experiential terms than that of a Sartre or Heidegger, and accordingly can serve as a prolegomenon to a future ontology of human experience.

The general thesis of the book is that one of the main tasks of philosophy today is the careful elucidation of experience and that phenomenology is a major tool in this enterprise. Accordingly, successive chapters concentrate on major phenomenological elucidations of space, time, embodiment, speech, the world, and the metaphysical implications of phenomenology itself. The book will be invaluable for the serious graduate-level student and teacher.

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***Space and Time.* By Richard Swinburne. New York: St. Martin's Press, 1968. Pp. 319. \$11.50.**

Richard Swinburne offers carefully argued discussions of most of the major philosophical questions concerning space and time: both traditional ones, like the infinity of space and time, and those more closely bound to contemporary scientific cosmology, like the existence of preferred reference frames. His methodology is a combination of logical reflection on argumentation from scientific results with the techniques of ordinary language analysis (with the latter often leading him to disagree with the classic works of Reichenbach and Grunbaum on key points—e. g., on the conventionality of the definition of congruence). The first seven chapters treat space, including such topics as the meaning of place, the logical and empirical status of absolute space, the measurement of distances, and the geometry and the number of dimensions of physical space. The next four chapters discuss time, including very interesting treatments of our knowledge of and ability to causally affect the past. The final four chapters try to answer questions (mainly on the basis of thermodynamics and current cosmological models) about our knowledge of the universe as a whole and the intrinsic limitations of this knowledge.

Because of the wide range of problems discussed and, especially, because of Swinburne's ingenious and challenging argumentation, this book should become a major contribution to current discussions of the philosophy of space and time.

***Concepts of Science, A Philosophical Analysis.* By Peter Achinstein. Baltimore, Md.: The Johns Hopkins Press, 1968. Pp. 266. \$8.95.**

This is not, as the title might suggest, an introductory textbook, but rather an advanced original discussion of some major problems in contemporary philosophy of science. The main topics treated are the nature of scientific definitions, the cognitive and ontological significance of scientific terms, the nature of scientific theories, and the nature of analogies and models. Achinstein's treatment of definitions is very valuable in its own right as a means of preserving a flexible core of the analytic-synthetic distinction from the force of current assaults on the rigidity of the traditional doctrine. Furthermore, it proves a useful tool at some key points in other discussions. Achinstein's views on the other three topics show a laudable trend away from the over-simplifications of classical logical positivism without a loss in analytic clarity and rigor. In sum, this book is an important contribution to current philosophy of science research.

***Completeness in Science.* By Richard Schlegel. New York: Appleton-Century-Crofts, 1967. Pp. 280. \$7.50.**

Professor Schlegel discusses the question of the extent to which science (and, since he is a physicist, especially physical science) can attain a complete description of the world. After a brief outline of his general views in the philosophy of science (views much influenced by Henry Margenau), he considers some purely logical limitations on both the descriptive and explanatory moments of science. (e.g., the impossibility in some cases of a description describing itself, the need for unexplained first principles). In this connection, he argues that the Gödel incompleteness theorem has no significance in itself for theories about the natural world but that it is possible to establish parallel results for such theories. He then turns to limitations in completeness that arise from the nature of physical reality as science