have any testable consequences in isolation. It is not unusual for a perfectly meaningful scientific theory to lack testable consequences when considered in isolation. We may say that what we test when we revise or confirm geometrical postulates by reference to physical experiments is not the geometry itself but rather the conjunction of geometry with a certain portion of optics and mechanics. On this account, "light travels in straight lines" is no more a "definition" than the parallels postulate is. It is just a principle of optics, nothing more nor less than that. And if "something goes wrong," we can revise either the geometry or the principles of optics, depending on the nature of the trouble. In certain worlds it might be best to retain Euclidean geometry and say that light does not travel in straight lines. In other worlds it might be best to abandon Euclidean geometry and retain this much of optics. The usual operationalist account hides, where it should emphasize, the fact that optical and geometrical principles figure on a par in scientific inquiry.

Since Professor Frank's book is thirty years out of date (at least in philosophic sophistication), the reader of this review might be interested in knowing where he can find a more contemporary account. Perhaps the best single book on philosophy of science currently available is *Scientific Explanation,* by Braithwaite (Cambridge University Press). For readers with a smattering of symbolic logic there is also a very good monograph by Professor Hempel: "Fundamentals of Concept Formation in Empirical Science" [*International Encyclopedia of Unified Science* (University of Chicago Press), vol. II, No. 7]. Those interested in the issues surrounding operationalism and the so-called verifiability theory of meaning might also read the pioneering articles by Carnap: "Testability and Meaning" and "The Interpretations of Physics" [both of these articles may be found in Feigl and Brodbeck's *Readings in the Philosophy of Science* (Appleton-Century-Crofts), a volume which also contains a large number of other good articles in contemporary philosophy of science]. A critique of Carnap's views by C. G. Hempel was published in a philosophic journal and has been republished in Linsky's *Semantics and the Philosophy of Language* (University of Illinois); a lengthy reply by Carnap, giving his current position, may be found in vol. I of *Minnesota Studies in the Philosophy of Science* (University of Minnesota). Those interested in more general issues in the philosophy of science might read *Philosophy of Science* by Stephen Toulmin (Home University Library)—a book which I do not think is a sound introduction to the philosophy of science, taken by itself, but which supplies some needed corrective to the stark "deductivism" of the Carnap-Hempel-Braithwaite account of scientific theories. And for the detailed examination of specific physical theories there is still no better work available than the writings of the late Hans Reichenbach.

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**An Educational History of the American People.** Adolphe E. Meyer. McGraw-Hill, New York, 1957. xx + 444 pp. Plates. $6.

A. E. Meyer states that his new book, *An Educational History of the American People,* is written mainly for novices. The book indeed is a light, interesting history. The author traces his theme from colonial America up to the present. The text has three major divisions: "The Beginnings," describing educational practices in colonial America; "Growth and Evolution," presenting the development of a distinctive public school system; and "Coming of Age," analyzing the emergence of modern educational practice and theory. The last section, which clearly describes the controversies in modern American educational philosophy, is by far the best part of the book.

Undergraduates should enjoy reading this work. Yet a *caveat* must be entered: This is not an impartial history—indeed it is not really a history but, rather, a running commentary. If one looks carefully beneath the intriguing literary style (sometimes Meyer is even too coy in his word usage), one can discover biases and personal judgments. The criticism of public education is a case in point (page 326). Thus, for the more serious layman this story may do more harm than good, for the author's subjectivity often distorts the history of American education.

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**Job Attitudes: Review of Research and Opinion.** Frederick Herzberg, Bernard Mausner, Richard O. Peterson, and Dora F. Capwell. Psychological Service of Pittsburgh, Pittsburgh, Pa., 1957. xii + 279 pp. $7.50.

"There is a serious discrepancy between our technological success in creating the machinery for production of goods and services and our understanding and dealings with the people who operate and manage these modern tools of production," asserts the preface to this volume. As the contents make clear, this discrepancy cannot be ascribed to lack of publications; rather, it relates to the restricted quality of the research available.

Research on workers' attitudes has been hampered by a variety of factors. Much of it has been naive or has been motivated by a wish to prove the wisdom of management. Even more has been limited by the difficulty of getting managerial permission to study employees on the job. Problems which should be tackled with a multidisciplinary team and large resources have been studied by one person without even access to high-speed computers. The result is a haystack of bibliographical references in which the wheat is truly hidden by the chaff. Unfortunately, the authors have not been very critical in identifying, for the reader, which items fall into which category.

The book contains a tremendous amount of information which can be valuable to researchers in psychology, medicine, economics, and sociology, as well as to managers and union officers. It should serve an especially useful purpose in spotlighting the gaps in our knowledge of phenomena which might well wreck our technological-economic system if we do not learn to deal more understandingly with them.

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**First Symposium on Host Specificity Among Parasites of Vertebrates.** Institut de Zoologie, Université de Neuchâtel, Neuchâtel, Switzerland, 1957. 324 pp. Illus.

One of the most outstanding characteristics of parasitism is the specificity for certain kinds of hosts. For a very long time the facts concerning this specificity have been recorded, organized, and filed away with little attempt to analyze the bases upon which it rests, its significance, or its relationship to other biological problems. This symposium records an attempt to pose some of these problems before a group of parasitologists who have concerned themselves with various phases of host specificity and zoologists who are interested in speciation, evolution, phylogeny, and taxonomy of the hosts.

After establishment as a working hypothesis of the existence of some parallelism between the phylogenies of hosts and parasites, the various groups of hosts (mammals, birds, reptiles, and fishes) and of parasites (ectoparasites and helminths) were examined to determine the extent of this parallelism between the