Book Reviews

Theories of Learning. Ernest R. Hilgard. Appleton-Century-Crofts, New York, ed. 2, 1956. 563 pp. Illus. $5.50.

Hilgard's revision merits more than the casual notice usually accorded a second edition of a standard textbook, for Hilgard's book stands almost alone as a guide to students of what has become in America the most actively explored field of experimental psychology. As it happens, the revision, while retaining its old form, represents a thorough reworking of the field, a complete rewriting of many chapters, the addition of much new material, and a bringing of the bibliography up to date. The first edition is still a valuable book, but the new one is indispensable.

"Learning theory" may be considered the typically American contribution to experimental psychology. Following Darwin and Pavlov, and guided by Dewey and Thorndike, psychologists in this country have been fascinated by the problem of explaining how man becomes molded by his environment into the person that he is. Broadly stated, this is the problem of "learning." American psychologists, in keeping with the Jeffersonian tradition, tend to seek a basis for the understanding of man in the laws that govern individual development. If all men are born equal, the explanation of their diversity must be referred to the influences of varying environments. In other words, men are what they are because of what they have learned. Can the natural laws of learning be formulated on the basis of observation and tested by logic and experiment? This has been the major preoccupation of American experimental psychology for more than half a century.

The literature on the theory of learning is enormous, and it bulges each year with hundreds of new titles, many of which represent utterly inconsequential contributions. Few psychologists have the time and patience to read it all, and fewer still have the scholarly perspective that will enable them to follow the trails of theory through the jungle of words. Hilgard gives us a steer. He identifies theories, presents the evidence for each with impeccable fairness, and leaves us (almost) free to draw our own conclusions.

For the readers of *Science*, most of whom are not psychologists, Hilgard's book can be recommended as a good introduction to experimental psychology, far better than any of the introductory textbooks that we impose on our students. Hilgard does not pretend to present all of psychology, but he gives us a wise and scholarly appraisal of one of psychology's most important fields. He knows his subject, knows how to communicate his enthusiasm, and—unusual among psychologists—knows how to use the English language.

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Précis de gérontologie. Léon Binet and François Bourlière. Masson, Paris, 1955. vii + 554 pp. Illus. Paper, F. 3800; cloth, 4500.

It is virtually impossible to squeeze a review of even so young a discipline as gerontology into 554 pages. The authors have not attempted this feat but have placed upon a clearly presented background of gerontology (the science of aging) an up-to-date compendium of modern medical thinking and practice dealing with older people (geriatrics).

The first impression of an awe-inspiring reference work is replaced on closer acquaintance with the attractiveness of a readable and stimulating review. The interesting and varied presentation can be attributed, in part, to a long list of competent collaborators.

The first five chapters constitute the gerontological background for the volume. In Chapter 1, Binet and Bourlière give a good summary of the status of the general biological problems of aging. In Chapter 2, Pacaud presents the psychological aspects of gerontology, and in Chapter 5, Daric gives a demographic summary of aging in France and discusses its socio-economic consequences. Chapter 3 on "Age and infection" and Chapter 4 on "Cancer and Gerontology" complete this part of the book, which covers just 105 pages.

The authors indicate that the next 12 chapters "study successively the physiology and pathology of each of the organs and functions of the human body." The chapters on the blood, arteriosclerosis, the respiratory apparatus, the digestive system, the kidney, and the endocrine glands fulfill this intent by achieving a good balance between the biological and clinical aspects of the discussions. The chapters on the heart, the prostate gland, the musculoskeletal system, the skin, the sense organs, and the nervous system are, however, more clinical in presentation and do not provide much physiological background. The book is concluded by Chapter 18 on "Gerontologic surgery" and Chapter 19 on "Therapeutic aspects of the aging problem."

This handsomely bound volume is printed on good paper with large readable type. The photographs, among 184 figures, are especially well reproduced. The bibliographies, which appear at the end of each chapter, range from a complete list of references following Chapter 1 to no references following Chapter 18. The authors recognize the limitation of their bibliography and refer the reader to N. W. Shock's *A Classified Bibliography of Gerontology and Geriatrics*. The somewhat topical subject index is strongly supplemented by a table of contents that includes the page numbers of the chapter subheads.

The title and the authors' statements indicate that the book is designed to aid the student and the physician who is interested in gerontology. It should be especially helpful to the physician to have, in one volume, some background of gerontology and a complete geriatric review. The authors have succeeded in filling the literary space between the more definitive works on gerontology and the more specifically geriatric works. They have provided an international type of summary by drawing heavily on the American and English literature. This book should be helpful to anyone who is interested in the problems of aging.

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Einführung in die Geometrie der Waben. vol. IV, *Elemente der Mathematik vom Höheren Standpunkt aus.* Wilhelm Blaschke. Birkhäuser, Basel-Stuttgart, 1955. 108 pp. Illus. DM. 15.25.

An encyclopedic book on the same subject by Blaschke, one of the principal workers in the field, and G. Bol appeared in 1938 under the title *Geometrie der Gewebe*. According to the preface, *Gewebe* (web or textile fabric) was changed to *Wabe* (honeycomb) because the author prefers being associated with apiarists rather than weavers.

Either term has little connection with