

Book Reviews

Methods of psychology. T. G. Andrews. (Ed.) New York: John Wiley; London: Chapman and Hall, 1948. Pp. xiv + 716. (Illustrated.) \$5.00.

Many instructors have long desired a systematic text to facilitate greater emphasis on methodology in the training of undergraduate psychology students. This book, which deals with methodology in many areas of psychology, was written by specialists in each area. The editor recognizes certain limitations in terms of omissions, both in the material presented and in areas not represented, such as industrial psychology.

After an introductory chapter on variables, controls, experimental design and the like, methodology in each of several areas is presented. Consideration is given to various aspects of learning, psychophysics, perception in various sense modalities, affection, motor functions, personality, social behavior, child development and others.

The things an instructor might like to find in the discussion of any one area, such as studying human thinking, might well include the following: sample problems, experimental designs for the problems, outlines of methods with apparatus including diagrams and controls, references to more complete details in published reports, methods of treating data with sample tabular arrangements and graphs, and some guidance for critical interpretation of results. No chapter of this book may completely satisfy all the requirements laid down by the critical reader. Some are very well done but others are poor in terms of adequate treatment of methods in the area. For instance, the reviewer considers the discussions of "Psychophysical Methods," "Studying Proprioception," "Motivation, Feeling and Emotion," and "Studying Neuropsychology and Bodily Functions" to be among the better chapters. "Studying Vision," on the other hand, is poor and some of the other sections are only mediocre. The first chapter, on introduction to psychological methodology, could have been more complete in details and illustrations.

There are two major deficiencies in the organization of this treatise: the apparent expectation that the meagre information on experimental design and controls in the first section will transfer to the study of subsequent chapters, and the attempt in most chapters to cover too much territory, which obviously has led too frequently to skimpy treatment of experimental design, methods, apparatus, and controls. In terms of teaching methodology, the book might have been more helpful to the student if each chapter had included brief statements of types of problems and methods with references to sources where complete descriptions may be found. Then there should have been a discussion of one typical experiment including a statement of the problem, method and apparatus with experimental design, controls, organization of results

and conclusions. With the present organization of the book, it is doubtful if the student will learn the requirements for planning and carrying out experimental work in more than a few of the areas.

This text, which has several excellent chapters, represents a step in the proper direction. Criticism of the materials presented undoubtedly will eventually lead to a revision with a better organization. In the meantime the book should find general use in experimental and methodology courses.

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Principles of mathematical physics. (2nd ed.) William V. Houston. New York-London: McGraw-Hill, 1948. Pp. xii + 363. \$5.00.

The first edition of Houston's book was known to teachers of theoretical physics for the clarity of its presentation and the judicious selection of material included. The second edition preserves these advantages. It is still a textbook usable in an intensive semester or a leisurely year's course, although it has been expanded and rearranged. The problems continue to be a major feature of the text and these are not routine but form a complement to the material chosen for detailed treatment. Especially useful, and rarely found in books of this type, is a chapter on the theory of vibrating systems.

It might be said that the work is incomplete and lacks coherence. If the size of the book was set in advance, however, the author has utilized the space for the most worthwhile material.

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Studies of upper-air conditions in low latitudes. Part I: *On the formation of West Atlantic hurricanes* (Riehl); Part II: *Relations between high- and low-latitude circulations* (Cressman). Herbert Riehl and George P. Cressman. Chicago: Univ. of Chicago Press, 1948. Pp. vi + 103. (Illustrated.) \$2.00.

Military requirements during World War II and certain unsolved problems of the general circulation in the earth's atmosphere have been a stimulus to a considerable amount of research in tropical meteorology during the past several years. Successful research in this field of meteorology requires an unusually high degree of skill in analysis and interpretation because of the vastness of the geographical region under consideration, the paucity of the available data, and the complexity of the phenomena under study. The authors have been prominently associated with recent research in this field, and their report, though plainly not a comprehensive summary of knowl-

edge concerning tropical meteorology, clarifies several important aspects of low-latitude weather, emphasizes the importance of upper air analysis, and stresses the inter-relationship between tropical weather phenomena and extratropical circulation patterns.

In Part I the structure of tropical hurricanes is compared with the less spectacular, but climatologically more significant, tropical disturbances, and the circumstances attendant upon the transition from one to the other are discussed. An explanation for the generation of cyclonic vorticity is presented which differs from that usually accepted in middle latitudes. The importance of an overlapping between middle- and low-latitude disturbances is discussed and illustrated with synoptic examples.

Part II is restricted to the definition, description, and illustration of typical circulation patterns during the summer months. The importance of the interrelation between tropical and extratropical disturbances is discussed.

The report is an excellent example of the results which can be obtained in a highly specialized field by research scientists who are thoroughly familiar with current and past research in other fields of meteorology.

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Scientific Book Register

- CONDIT, IRA J. *The fig*. Waltham, Mass.: Chronica Botanica; New York: Stechert-Hafner, 1947. Pp. xv + 222. (Illustrated.) \$5.00.
- CORNER, GEORGE W. (Ed.) *The autobiography of Benjamin Rush: his "Travels Through Life" together with his Commonplace Book for 1789-1813*. Princeton, N. J.: Princeton Univ. Press, 1948. Pp. 399. (Illustrated.) \$6.00.
- CURTIS, WINTERTON C., and GUTHRIE, MARY J. *Laboratory directions in general zoology*. (4th ed.) New York: John Wiley; London: Chapman & Hall, 1948. Pp. viii + 236. (Illustrated.) \$2.00.
- DAVIS, H. A. *Shock and allied forms of failure of the circulation*. New York: Grune & Stratton, 1949. Pp. xii + 595. (Illustrated.) \$12.00.
- ELLIOTT, GODFREY M. (Ed.) *Film and education: A symposium on the role of the film in the field of education*. New York: Philosophical Library, 1948. Pp. xi + 597. \$7.50.
- FIELD, HENRY. (Compiler.) *Contributions to the anthropology of the Soviet Union*. (Publ. 3947.) Washington, D. C.: Smithsonian Institution, 1948. Pp. vii + 244. (Illustrated.) \$2.00.
- KELLEY, WALTER P. *Cation exchange in soils*. New York: Reinhold, 1948. Pp. xv + 144. (Illustrated.) \$4.50.
- MARTON, L. (Ed.) *Advances in electronics*. (Vol. 1.) New York: Academic Press, 1948. Pp. xi + 475. (Illustrated.) \$9.00.
- MITCHELL, PHILIP H. *A textbook of general physiology*. (4th ed.) New York-London: McGraw-Hill, 1948. Pp. ix + 927. (Illustrated.) \$7.50.
- MULDOON, HUGH C. *Organic chemistry*. (3rd ed.) Philadelphia-Toronto: Blakiston, 1948. Pp. viii + 648. (Illustrated.) \$5.50.
- PINCUS, GREGORY. (Ed.) *Recent progress in hormone research: the proceedings of the Laurentian Hormone Conference*. (Vol. III.) New York: Academic Press, 1948. Pp. 378. (Illustrated.) \$7.80.
- SCHIFF, LEONARD I. *Quantum mechanics*. New York: McGraw-Hill, 1949. Pp. xii + 404. (Illustrated.) \$5.50.
- SCHILLER, PAUL V. *Aufgabe der psychologie: eine geschichte ihrer probleme*. Vienna: Springer-Verlag, 1948. Pp. 233. \$4.00.
- SHANDS, ALFRED RIVES, JR. (in collaboration with RICHARD BEVERLY RANEY). *Handbook of orthopaedic surgery*. (3rd ed.) St. Louis, Mo.: C. V. Mosby Co., 1948. Pp. xviii + 574. (Illustrated.) \$6.00.
- SMITH, DAVID T., MARTIN, DONALD S., et al. *Zinsser's textbook of bacteriology*. (9th ed.) New York-London: Appleton-Century-Crofts, 1948. Pp. xl + 992. (Illustrated.) \$10.00.
- STORER, JOHN H. *The flight of birds: analyzed through slow-motion photography*. (Bull. No. 28.) Bloomfield Hills, Mich.: Cranbrook Institute of Science, 1948. Pp. xv + 94. (Illustrated.) \$2.50.
- TWENEY, C. F., and HUGHES, L. E. C. *Chambers's technical dictionary*. (Rev. ed.) New York: Macmillan, 1948. Pp. viii + 976. \$6.50.
- VIETTE, PIERRE. *Lépidoptères homoneures*. (Faune de France, 49.) Paris: Paul Lechevalier, 1948. Pp. 83. (Illustrated.) 550 fr.
- WATSON, ROBERT I. (Ed.) *Readings in the clinical method in psychology*. New York: Harper, 1949. Pp. v + 740. \$4.50.
- WILSON, JOHN G. *About cosmic rays*. London: Sigma Brooks, 1948. Pp. 144. (Illustrated.) 8/6.
- WOLFF, ÉTIENNE. *La science des monstres*. Paris: Librairie Gallimard, 1948. Pp. 265. (Illustrated.) 580 fr.
- WORK, THOMAS S., and WORK, ELIZABETH. *The basis of chemotherapy*. New York: Interscience, 1948. Pp. xx + 435. (Illustrated.) \$6.50.
- . *Ionospheric radio propagation*. (Nat. Bur. of Standards Circ. 462.) Washington, D. C.: Supt. of Documents, U. S. Govt. Printing Office, 1948. Pp. iv + 209. (Illustrated.) \$1.00.
- . *The Royal Society Scientific Information Conference, June-July 1948*. London, Engl.: The Royal Society, 1948. Pp. 723. (Illustrated.) 1£ 6/.