

of democracy is the waste of money and talent when projects that should continue through decades are allowed to wither for lack of sustaining appropriations. The hit-and-run techniques that at times serve developmental research in the physical sciences will not do when we are dealing with secular processes. These processes furnish background, perspective, and context for the effective application of all science.

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The Language of Social Research. A reader in the methodology of social research. Paul F. Lazarsfeld and Morris Rosenberg, Eds. Free Press, Glencoe, Ill., 1955. xiii + 590 pp. Illus. \$6.75.

This reader is one of a growing list of books on social science methodology that have been published in the last several years. It represents the continuation of what seems to be an increasingly concerted effort to make explicit the design of social research and to codify social science procedures and techniques.

The volume is, on the whole, an excellent collection of papers. By being brought together, these papers are not only made more readily accessible, but they also take on a cumulative value as contributions to the development of more objective and rigorous social science research.

The work, however, contains many gaps and deficiencies, partly because it does not set out to cover all of social science method and partly because it reflects the present relatively primitive state of social science. The "Reader" does not attempt to cover such topics as sampling, questionnaire construction, and experimental design for which "there is already a standardized literature. It does not deal with mathematical techniques that require knowledge 'beyond that which the average social scientist is likely to have.' It excludes also consideration of topics whose 'methodological implications have not yet been codified adequately at all.' It purports to emphasize the 'analysis of material which has been properly collected.' The editors appropriately admit that the selections are not necessarily representative of the literature but were gathered in considerable measure from the work of 'colleagues and junior associates of the senior editor' in his work at Columbia University. However, it may be noted that this does not detract from the apposite character or usefulness of the selections.

The materials written by the editors, while all too brief, together with the outline of the book, do give the work some measure of cohesion and provide, on the

whole, an adequate rationale for the selection of the readings. In a brief general introduction and short introductory statements to each of the six sections into which the volume is divided, a general conception of science is presented and the following major topics are treated: "Concepts and indices," "Multivariate analysis," "The analysis of change through time," "Formal aspects of research on human groups," "The empirical analysis of action," and "Toward a philosophy of the social sciences." Especially useful is the contribution of the editors to the clarification of the steps involved in the delineation of problems for research and in the analysis and interpretation of research results.

The volume is not a self-sufficient treatise on social science methodology. Its title is, therefore, rather too comprehensive in that it covers only a small part of the "language of social research." As a supplement to more comprehensive works on the philosophy of science and on social science method, it is, nevertheless, a useful contribution to the literature.

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The Pharmacological Basis of Therapeutics. Louis S. Goodman and Alfred Gilman. Macmillan, New York, ed. 2, 1955. xiii + 1831 pp. Illus. \$17.50.

There is a certain fascination in comparing the first and second editions of this book—the 14 years elapsed are paralleled by remarkable advances in many directions. The antibiotics, the newer adrenal steroids, adrenergic blocking agents, radioisotopes, and antihistaminics are all substances that were largely unknown at the time of the first edition.

The growth in the amount of subject matter has resulted in an increase in both the bulk and price of the book by about 50 per cent; it cannot be said that pharmacology has become much more comprehensible in terms of mechanisms during the last 10 years or so, but the fact that the authors have been able to encompass the multitude of new developments in their text bespeaks much in the way of organizational effort. This is a medical textbook, and as such its treatment ought to be directed toward practical ends; nevertheless there is much use made of Goodman and Gilman by research workers who are not primarily concerned with medicine, and it is therefore gratifying to find that the treatment of structure-activity relationships of various classes of drugs has been greatly expanded in this new edition. As was true in the first edition, the treatment of autonomic drugs is particularly outstanding, and I am also impressed with the

concise presentation of the vast literature connected with the adrenal steroids. The fact that a substance that was discovered as recently as aldosterone is covered in some detail is an indication of the continuous revision of the text that must have taken place up to the time of publication. There are a few errors: the partition coefficient is incorrectly defined, the structure of podophyllotoxin appears to be out of date, and it is somewhat surprising not to find serotonin listed. These minor errors in no way detract from the general impression that this is both a reference work and a textbook of the most reliable sort.

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Advanced Calculus. An introduction to classical analysis. Louis Brand. Wiley, New York; Chapman and Hall, London, 1955. xii + 574 pp. Illus. \$8.50.

The nature of this book is indicated by its subtitle, "An introduction to classical analysis." It differs from books on elementary calculus in two major respects: (i) in the emphasis given to definitions, theorems, and rigorous proofs; and (ii) in the inclusion of chapters on "Vectors" (Chapter 5), "Line integrals" (Chapter 8), "Uniform convergence" (Chapter 10), "Functions of a complex variable" (Chapter 11), and "Fourier series" (Chapter 12). Some other more advanced topics are treated briefly in sections of various chapters—for example, implicit function theorems and Lagrange multipliers with "Functions of several variables" (Chapter 4) and Green's and Stokes' theorems, with "Multiple integrals" (Chapter 9). As the author states, the book deals essentially with functions of a real variable. His purpose in including Chapter 11 is to complete the explanation of certain portions of real variable theory—for example, intervals of convergence for series—and to show the use of complex integration in computing certain real integrals.

The development of the real and complex number systems is sketched in Chapter 1. In Chapter 2 ("Sequences and series") some of the basic concepts of analysis are introduced in their simplest setting. Chapter 3 ("Functions of a real variable"), Chapter 6 ("The definite integral"), and Chapter 7 ("Improper integrals") are largely a review of elementary calculus, but with the different emphasis that I have mentioned. Only the Riemann integral is considered.

The book generally is on the usual level of courses in advanced calculus for undergraduates and beginning graduate students. It is better suited for those majoring in mathematics than it is for phy-