

late our modern notation came to be widely understood is made clear in an appendix "Memorable Arithmetic" by G. Buckley of Cambridge which, published in 1567, begins with the manner of writing numbers: "When you are about to write a number, make a beginning on the right, continuing to the left, until you have written them all." Strangely enough the only important early British contribution (not counting de Moivre who had received his formal education in France) was by John Graunt, haberdasher, with his famous bills of mortality. Newton had to be prodded by Pepys to answer what was by then a simple question of dice and had no further use for such matters, possibly regarding them as irreligious.

The last third of the book is taken up with translations of selected writings by Buckley, Galileo, DeCoste (Life of Mersenne), Pascal and Fermat, and de Moivre. It is no doubt a sign of changing times that these take the place of the quotations in the original Latin and French with which Todhunter so liberally sprinkles his text. But it is good to have such illuminating accounts of the way the pioneers thought and lived.

This book is a must for all those interested in the early history of probability. It is well-produced, with ten plates and a lively dust-jacket featuring a streamlined Fortuna.

H. A. David, Virginia Polytechnic Institute

Statistical and Inductive Probabilities, by Hugues Leblanc.
Prentice-Hall, Inc., 1962. xii + 148 pages.

The author has made an attempt in this book to bring a settlement over the well-known controversy between two different schools of probability viz., the followers of Von Mises and that of Keynes. A very clever treatment is made by establishing the correspondence between various concepts in probability and sentence theoretic language. Because the book is more oriented toward the philosophical aspects of probability concepts, an appreciation of the book demands the knowledge of mathematical logic, besides a clear understanding of probability theory.

In Chapter 1, a resumé of a family of languages and their connection with set theory has been presented. This chapter would serve a useful purpose for many readers who lack formal training in logic. Chapter 2 surveys in detail with a critical account of the definitions of probability, conditional probability, and random variable (random function as mentioned in the book) as dealt by Neyman, Feller, Kolomogorov, Loève, Parzen and others. The main feature of Chapter 3 is that statistical probabilities when expressed in sentence theory can be interpreted as truth-values of some sort or the other. Finally,

the last chapter includes a discussion of inductive probabilities as envisaged by Keynes' followers. It is shown that inductive probabilities are estimates of the truth-values of Chapter 3.

Every chapter in the book begins with the summary of the chapter. It contains a number of illustrations in order to explain the definitions and theorems. A set of relevant footnotes has been appended at the end of each chapter. Even a few proofs of statements have been included in the footnotes. In the reviewer's opinion, inclusion of some more material in way of proofs or explanation directly in the chapters would have achieved clarity and smoothness in readability. However, the compact and concise presentation is perhaps the major point in the book. As a last word, it might be said that the author, with less than 150 pages, has successfully tried to treat difficult ideas and thoughts of many eminent probabilists and logicians of our time.

S. G. Mohanty, University of Buffalo, N. Y.

Statistics, An Intermediate Text-book, Vol. 1, by N. L. Johnson and H. Tetley. MacMillan Co. of Canada, 1962. 304 pages. \$3.85.

This is the second edition of a fairly standard book published in 1949. The book is primarily intended for those studying statistical sections of the actuarial examinations in Britain.

Chapters one to four deal with descriptive statistics such as sample means, variances, correlations, histograms etc. Chapter five deals qualitatively with statistical inference and serves to introduce chapters six to eight on probability theory. Chapters nine and ten deal with statistical inference, giving mainly a brief summary of some tests of hypotheses. Volume 2 deals with statistical inference in more detail.

The book is well written and in clarity of ideas seems better than many introductory statistics books published today. It is, however, probably not suitable for statistics courses (unless possibly along with Vol. 2) owing to subject matter and actuarial emphasis. Thus, half of the book deals quite extensively with descriptive statistics and numerical procedures, leaving little room for statistical inference.

D. A. Sprott, University of Waterloo