The influence of the carbohydrate on protein chemistry is treated in excellent chapters on physicochemical methods, amino acid analysis, amide determination, and the interaction of sugars with amino acids. The structural and chemical analysis is dealt with in chapters on the chemistry of sugars, methods of qualitative and quantitative analysis of sugars, structural analysis of the heterosaccharide units (including gas-liquid chromatography), and carbohydrate-peptide linkages. Large sections of one chapter are devoted to individual glycoproteins, including ovalbumin, ovomucoid, casein, fetuin, α_1-acid glycoprotein, immunoglobulins, transferrin, submaxillary gland glycoproteins, urinary glycoprotein, blood-group substances, thyroglobulin, and various hormones, enzymes, mucins, and connective-tissue glycoproteins. The chapter on biosynthesis and metabolism of amino sugars is concerned mainly with hexosamines and sialic acid.

In general, this book details and integrates its material with skill. The treatment is straightforward and reasonably comprehensive, and all in all the book is a welcome addition to the bookshelf and laboratory bench.

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The Uses of Statistics

Research Papers in Statistics. F. N. DAVID, Ed. Wiley, New York, 1966. 476 pp., illus. $16.75.

This is a collection of 26 papers whose only connection is that they are dedicated to the great statistician Jerzy Neyman on his 70th birthday. In view of the space limitations it has seemed best to describe each paper in a sentence or two. Thus the interested reader may choose where to read further. One cannot but wonder why so many of Neyman's most distinguished students are not included in the list of contributors.

E. S. Pearson describes his collaboration with Neyman in 1926–34.

M. S. Bartlett describes recent developments and problems in the theory of epidemics.

J. Berkson examines data with a view to deciding whether the emission of α-particles takes place according to a Poisson process.

D. R. Cox discusses estimation and testing of hypotheses for a generalized form of the logistic qualitative response curve.

H. Cramér discusses the distribution of extreme values of a class of normal stochastic processes, which includes the normal stationary processes as a subclass.

D. Dugué describes the result of the late Pierre Dufresne on the distribution of the number of changes of sign of the partial sums in drawing without replacement from an "urn" containing a plus ones and b minus ones.

R. Fortet formulates generally and gives results on the problem of optimal division of a population on the basis of characteristics which determine the distribution of the observed chance variables.

U. Grenander discusses the problem of getting information about the number of internal states of an automaton from observations on its behavior.

J. M. Hammersley gives results on the number of ways in which a d-dimensional rectangular parallelopiped with sides whose lengths are integers (a "brick") and whose volume is n can be dissected into s bricks of volume two ($0 \leq 2s \leq n$) and $n - 2s$ bricks of volume one. The particular case $d = 3$ is one of the classical unsolved problems of solid state chemistry.

K. Ito discusses the consequence to a test of the linearity of a regression which results from a departure from homoscedasticity.

D. G. Kendall studies the asymptotic (with n) behavior of the nth-generation (in a branching process) transition probability $P_{ij}^{(n)}$ from a fixed positive state i to a fixed positive state j.

L. Le Cam describes, under certain assumptions, the limiting local behavior of likelihood functions when the number of observations is large.

P. Lévy gives an exposition of Brownian motion in general Euclidean space and in Hilbert space and lists important unsolved problems.

P. A. P. Moran considers approximate t-tests which make it unnecessary to use tables unless the number of observations is very small.

T. Page gives an exposition of studies on the problem of evolution of galaxies.

G. Polya describes a series for Euler's constant.

C. R. Rao applies his generalized inverse of a matrix to fitting a regression.

A. Renyi discusses, from a Bayesian point of view, the amount of information about an unknown parameter contained in a sample of observations whose distribution is determined by the parameter.

S. Rios and I. Yanez discuss a game played between two players by linear programming.

L. Schmetterer discusses the asymptotic efficiency of the maximum likelihood estimator in the regular case.

H. Solomon discusses applications of statistical methods to legal questions.

C. Stein discusses the recovery of interblock information as estimating the mean of a multivariate normal distribution.

P. V. Sukhatme gives an exposition of recent developments in sampling theory and practice.

H. Wold discusses iterative methods for calculating many of the most important estimators.

D. E. Barton and F. N. David study the tendency for cases of certain diseases to form clusters in time and space as evidence for epidemicity.

F. N. David and E. Fix discuss the distribution of the (noncircular) serial correlation coefficient under permutation of the observations.

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New Books

Algebraic Functions. Gilbert Ames Bliss. Dover, New York, 1966. 230 pp. Illus. Paper, $1.85. Reprint, 1933 edition.

The Anatomy of the Aeroplane. Darrol Stinton. Elsevier, New York, 1966. 345 pp. Illus. $12.50.

Anthropology and Early Law. Lawrence Krader, Ed. Basic Books, New York, 1967. 352 pp. $6.95. Eleven papers.

Archaeology: Historical Analogy and Early Biblical Tradition. William F. Albright. Louisiana State Univ. Press, Baton Rouge, 1966. 79 pp. $2.75. Rockwell Lecture Series.

The Art of Conjecture. Bertrand de Jouvenel. Translated from the French edition by Nikita Lary. Basic Books, New York, 1966. 319 pp. $7.50.

Automatic Control Theory. Benjamin E. DeRoy. Wiley, New York, 1966. 286 pp. Illus. Paper, $4.50; cloth, $7.95. Wiley Series in Electronic Engineering Technology.

Automatic Translation of Languages. Papers presented at NATO Summer School (Venice), July 1962. Y. Bar-Hillel and others. Pergamon, New York, 1966. 242 pp. Illus. $15. Nine papers.

Basic Principles of Electronics. vol. 1, *Thermionics.* J. Jenkins and W. H. Jarvis. Pergamon, New York, 1966. 238

(Continued on page 368)