
In this book Dr. Keele traces briefly the history of ideas on pain mechanisms. Amongst primitive cultures and indeed in some highly organized civilizations such as those of India, China, and early Greece, the heart had pride of place as the organ of sensation, including pain. The Aristotelian view on pain which placed the blood vessels and heart as the essential structures had unfortunately a long life—lengthened by the coming of the Dark Ages and it must be admitted by a certain scientific obscurantism amongst the Fathers of the Church. The rival view that the brain was the essential organ, expressed by Galen though probably derived from the information afforded by the burial customs of Egypt, came once more to prominence after the Renaissance. Soon afterwards the story becomes one of experimental observation and deduction. Although the search for a "sensorium commune", which would embrace pain as well as other sensations, influenced thought and observation right up to the nineteenth century, it is interesting to see how individuals now and then broke away from current conceptions and made both deductions and inspired guesses that were later confirmed as part of our modern physiology of sensation. The main points of this, and some still lively controversies, are mentioned briefly in the last two chapters.

Dr. Keele's book is a thoughtful and scholarly introduction to that background of ideas which has inevitably influenced our views on pain today. As the author himself points out, the past history of the development of scientific views can be as useful in understanding the present position as the past history of the patient in appreciating the significance of his present symptoms.

C. W. M. Whitty.


This is a monograph in the German neurological tradition, thorough and comprehensive—and perhaps a trifle heavy-handed.

Dr. Leischner presents a most competent review and appraisal of alexia and agraphia, illustrated by reports of 36 personally observed cases. Although in none of these cases did a disorder of reading or writing present in completely isolated form, in the majority it was the most outspoken feature in the clinical picture. The relation of these disorders both to one another and to other aspects of language disturbance is considered in some detail and an adequate account given of the various lines of theoretical interpretation.

The author considers that it is appropriate to distinguish between "primary" and "secondary" brain functions. The former are said to be linked with original, unlearnt bodily activities and to possess determinate cerebral localization. The second are concerned with functions acquired by experience and are said to show much greater variability in organization and in cerebral localization. Reading and writing clearly fall into the second category. In consequence, they are held to show only a relative degree of cerebral localization. Dr. Leischner claims that his clinical findings are in broad agreement with such a view.

As with many contemporary German monographs, the contribution of workers other than continental is somewhat under-represented. Thus no mention is made of Holmes's celebrated case of "pure word-blindness", published as long ago as 1950, and little attention is given to American work other than that of Orton and Nielsen. It may be hoped that this somewhat parochial aspect of contemporary German neurology is but a passing phase.

Dr. Leischner's work is careful and solid. His monograph will be of value to all concerned with the analysis of patterns of psychological breakdown due to cerebral lesion.


This book comprises a scholarly account of the history and present-day conceptions of the subject. The author treats with easy confidence the outlook of the philosopher, the physicist, the psychoanalyst, the comparative anatomist, and the neurophysiologist. By using the word "consciousness" the title becomes misleading, as other aspects of so-called mental activity are also considered at length. This book will be read with interest and profit by those who take an interest in how the brain works.


These two books represent, in striking juxtaposition, widely different approaches to the study of instinct. The first comprises the papers and discussions of a symposium organized in 1954 by the Fondation Singer-Polignac, and the emphasis is upon experimental and other empirical data. In the second, the substance is theoretical and the facts are those adduced by the authors whose views Dr. Fletcher discusses.

The first work is massive and many of the contributions represent sustained and detailed studies of "instinctive" and "appetitive" patterns in particular genera. Much of this material will be fresh to the general reader, but anyone who has time to absorb it will find numerous points of interest and be spurred to reframe any general view of the mechanisms underlying these.
BOOK REVIEWS

forms of behaviour which he may have developed. The constant attempt of many of the authors to view behavioural relationships in connexion with their anatomical and physiological correlates is likely to appeal to the neurologist reader. Those with any acquaintance with contemporary comparative psychology will have little difficulty, from an inspection of the list of symposiasts, in guessing the lines of controversy which are developed in discussion. But it should be emphasized that there is much solid and valuable material in the book and it forms an attractive album for perusal by anyone wishing to get an idea of current developments in this field.

Dr. Fletcher, on the other hand, writes primarily for those who feel the need for a broad survey of past and present doctrine about instinct—for readers who do not welcome contact with sharp-edged fragments of empirical fact. He has much that is always cautious and sometimes interesting to say about the contributions of McDougall, Freud, Lorenz, and Tinbergen. But the book does not achieve the status either of objective critical history or of balanced scientific exposition. It seems sad, for instance, that in a book of this character the contribution of Alexander Shand, in some respects more distinguished than that of William McDougall, is not examined. Nor is there any attempt to give an account of the influences responsible for Freud’s initial conception of “instinct”. So far as the work of the “ethologists” is concerned, it seems a pity that Dr. Fletcher does not summarize and assess the lively criticisms of their theoretical position recently current in this country and in the U.S.A. It may be that even those students of the social sciences to whom the author seems chiefly to address himself might prefer something more pointed, if less tidy and comfortable than this book.


This book reports an investigation designed to select perceptual tests suitable for the detection of traits having potential psychiatric significance. The authors hope that a well-chosen battery might be more reliable and convenient to administer than conventional interviews and questionnaires. This idea is in itself clearly attractive and sensible. The outcome of each test is presented in terms of differences between three groups of subjects independently assessed as “normal”, “neurotic”, and “psychotic”, the latter two descriptions corresponding with Eysenck’s known conceptions. The tests themselves cover a wide range of sensory and perceptual functions, from dark adaptation and flicker fusion to visual illusions and object-recognition. They clearly represent a great variety of physiological levels. Some non-perceptual tests such as those of salivary output and coordinated motor function are also described.

The worth of this investigation, at least, so far as it is reported, is very largely undermined by failure to take those finer precautions in execution and interpretation which generations of experiment on visual perception have shown to be necessary. As regards execution we may cite a single example, the test of critical frequency of flicker fusion. No significant differences between the results for the three groups were found here, and the authors are inclined to lay the blame for this upon acknowledged inadequacies in their apparatus. They continue (p. 42) “Eysenck (1954), who predicts from his general theory of introversion and extroversion that extroverts or hysteric will have a higher C.F.F. than introverts or dysthymics, recently attempted to connect C.F.F. with qualities of temperament. If his prediction is borne out, a link will have been forged not only between C.F.F. and temperament but also with condition-ability (Franks, 1954) and other phenomena subsumed under the same theory.” These are brave, even grandiose, words. (Many who have a more detailed interest in the factors determining critical flicker frequency would be glad to feel that they knew enough to be able to predict anything regarding its relation to any function standing higher in the psycho-physiological hierarchy.) But they are words which accord ill with the absence in the authors’ report of any indication that ocular fixation and movements were controlled. Had any differences been found they could well have been due to differences in these respects.

Neglect of the commoner precautions in interpretation may be exemplified from those tests, such for instance as the Gottschaldt perceptual closure tests, in which performance is assessed in terms of speed (number of tasks correctly done in unit time). Here again the results were not significant. But had they been, as was predicted, there would have been no reason to suppose that the difference had anything special to do with the perceptual function in question. Psychotic and neurotic subjects might well do worse than normals on any test demanding the performance of a series of separate but related tasks, whether visual, motor, or intellectual.

At a time when the experimental psychologist is presented with many notable opportunities for work which can be of real significance to neuropsychiatry while at the same time advancing his own field of interest, it is disappointing to find such gratuitous disregard of principles of investigations which have been so hardly won, and which not all the factorial computing machines in the world can replace. Psychiatrists and others responsible for “measuring personality functions likely to be important in military, industrial, and educational selection” would do well before placing much reliance upon these tests to consider carefully the precise conditions of their administration and evaluation.


The psychological laboratory makes important contributions to the understanding of mental disorder, and indeed the psychological research worker is well placed to balance the various influences which come to bear on the study of mental disease. Like the psychiatrist, his main weakness lies in his limited knowledge of clinical neurology and neurophysiology, but in general this is
an excellent account of existing knowledge, and can be recommended with every confidence to all concerned with the subject.


This simple introduction to electromyography is a useful guide to those who wish to take up the subject.


At the request of the Organizing Committee of the Second International Congress of Neuropathology held in London, 1955, all reports, communications, and discussions presented to this congress have been published by the Excerpta Medica Foundation.

These Proceedings (edited by Dr. W. H. McMenemey) consist of three parts, Parts I and II containing 650 pages of text, and Part III containing 156 plates.

The Proceedings can be ordered from EXCEP'TA MEDICA FOUNDATION, 111 Kalverstraat, Amsterdam, The Netherlands, at the price of £4 10s., fl. 50., or $12.50.

International Association of Applied Psychology

The XIIIth Congress will be held in Rome from April 9-14, 1958.

Those who wish to attend should apply to:
Secreteria del XIII Congresso,
Internazionale di Psicologia Applicata,
Instituto Nazionale di Psicologia del C.N.R.,
Piazzale delle Scienze 7,
ROMA (Italia).

Sherrington Memorial Lecture

The first Sherrington Memorial Lecture, organized by The Royal Society of Medicine, will be delivered by Lord Adrian, O.M., M.D., F.R.S., in the Society’s House at 8 p.m., on Wednesday, November 27, 1957.

The subject of the lecture is “The Analysis of the Nervous System”.

Admission will be by ticket only and applications for tickets may be made to the Assistant Secretary of the Society.

Correction.—The title of the paper by W. B. Mathews in the last issue of the Journal (20, 172) should read “Familial Calcification of the Basal Ganglia with Absence of Response to Parathormone.”

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BOOKS RECEIVED

(Review in a later issue is not precluded by notice here of books recently received.)


