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Book reviews

Physiological Aspects of Clinical Neurology Edited by F. Clifford Rose. (Pp. 343; illustrated; £16.00.) Blackwell Scientific Publications: Oxford. 1977.

To mark the centenary of the birth of Sir Gordon Holmes a symposium was held at Charing Cross Hospital the theme of which was the title of this book in which the scientific papers which comprised the symposium are collected.

The subject matter has been grouped into two broad sections, the first dealing with different aspects of the physiology of visual perception and the second with the organisation and control of movement. A third section deals with a number of miscellaneous topics.

Each chapter is a short account of a physiological or clinical topic derived from the author's own work, and although some of the topics are closely related each chapter is complete in itself. As might be expected when the list of participants includes some of the most illustrious names in contemporary neurology, many of the chapters are of unusual interest and distinction. This is particularly the case when the author has been able to develop a subject which bears directly on Sir Gordon Holmes own particular contribution. The book has been carefully edited, and a clear style of presentation has been maintained throughout. The production is of high quality with good illustrations. It is a fitting tribute to Sir Gordon Holmes which will appeal to a wide range of interests in clinical neurology, the associated sciences, and ophthalmology.

J. A. R. LENMAN

Neurobiologie de l'Apprentissage Edited by J. Delacour. (Pp. 213; illustrated; frs 120.) Masson: Paris. 1978.

This is the proceedings of a seminar organised by Professor Delacour in the "Ecole des Hautes Etudes en Sciences Sociales." It brings together workers from medicine (physiology, psychology, pharmacology, and mathematics.

Memory and learning are prominent subjects in the contributions, which vary from general discursive reviews to detailed papers on some special aspect. Their value also varies greatly. The general reviews tend to be uncritical and, in some cases, rather out-of-date. Long-term and short-term memory are given an airing. Encoding is discussed in the now rather limiting terms of chemical processes. The segregated functions suggested over a decade ago for right and left temporal areas in human memory are recapitulated without comment, though some attempt is made to integrate the findings into a credible picture of memory function.

It is difficult not to consider "memory" in the crayfish and in man, and perhaps in man and pure bred mice, as mechanisms different in degree and kind. The apparent identification of these disparates is confusing. In general, learning and memory need more clear and separate definition. The book makes no reference to a number of recent views on memory mechanisms, arising from philosophy and pure psychology. Despite their origin, they can usefully impinge on neurobiology. Nevertheless the book serves a useful purpose in purveying the shared interests in memory and learning problems of a number of separate disciplines. If it reaches the right readership, it may initiate new approaches to old problems. This is badly needed in the field of memory.

C. W. M. WHITTY

Myopathies By Jaap Bethlem. (Pp. 281; illustrated; $39.25, Dfl.96.) North-Holland: Amsterdam, New York, Oxford. 1977.

Professor Bethlem of Amsterdam has written this short book for clinicians who do not specialise in muscular diseases. Based on a classification prepared by the Research Group on Neuromuscular Diseases for the World Federation of Neurology, the presentation is mainly clinical or based on a selection of recent literature. Some of this is accepted a little uncritically but serves to draw attention to a number of working hypotheses current in this difficult field. A short paragraph on the facioscapulohumeral syndrome is an indication that the Landouzy-Dejerine disease may not be an entity. But this is the quandary of all classification at present. Which is to be the reference criterion—clinical picture, histology, biochemistry, or whatever? Is it acceptable for a single disease to have different modes of inheritance? Until this is settled it is impossible to decide whether some disorders should be classified as variants or discrete entities. Although written for nonspecialists, this book will be used frequently by those interested in muscle disease as a quick survey of the literature on some unusual types of myopathy because it is surprisingly comprehensive and easy to find the unusual syndrome by reference to its outstanding feature. Despite its clinical orientation, the illustrations are all of histology, but they are well-chosen and beautifully reproduced.

J. A. SIMPSON

Slow Virus Infections of the Central Nervous System Edited by V. ter Meulen and M. Katz. (Pp. 258; illustrated; $27.50.) Springer-Verlag: Berlin, Heidelberg, New York. 1977.

What infection occurs worldwide with a virtual 100% mortality and with no trace of a host response? What is the relevance of slow virus infection to multiple sclerosis? There is no prize for the answers, unless it is the Nobel prize. This small book presents some of the problems of this type in the field of slow virus infections of the central nervous system, and summarises up-to-date research. The book is based on a workshop held in March 1975 (why did it take nearly three years to bring out—an incubation period which makes even Creutzfeldt-Jakob disease look impetuous?).

The first section deals with unconventional agents and gives the extraordinary story of kuru, Creutzfeldt-Jakob disease, transmissable presenile dementias, and animal diseases such as scrapie. The progressive unravelling of this group of diseases is one of the most exciting and important features of modern neurology. As Dr Mims puts it " . . . coming upon Gajdusek and Gibb's research is like coming upon the periodic table or the double helix after studying some medical text on alchemy." The second section deals with conventional agents and includes a fascinating chapter on progressive multifocal leucoencephalopathy and the possible relationship of PML agents in the aetiology of human cerebral neoplasms, and a concise account of the

difficulties underlying the pathogenesis of subacute sclerosing panencephalitis. The third section is devoted to papers and comments related to multiple sclerosis, and there is good and succint discussion on the problems of pathogenesis and epidemiology. The final section consists of critical papers on the approach to slow virus infection including the views of virologists, geneticists, and epidemiologists, and ends with Dr Mim's excellent outlook on future research.

This is a good book and highly recommended. Each chapter is short and to the point, with full references. Each section includes thoughtful and interesting comments and discussion. The editors have done an excellent job and the publishers are to be complimented on the layout and standard of print and pictures.

L. S. ILLIS

An Atlas of Polytome Pneumography By Taher El Gammal and Marshall B. Allen. (Pp. 386; illustrated; price not stated.) Charles C. Thomas: Springfield, Illinois. 1977.

The Atlas describes in detail the improvement which can be obtained at air ventriculography and myelography in infants and pneumoencephalography in infants and adults by using a polytome. The authors have concentrated on the posterior fossa, third ventricle, and perisellar regions, areas in which computerised tomography has been less efficient. Examples of the normal pneumographic appearances and variants are shown, followed by the various pathological conditions which may be demonstrated.

Ventriculography and even encephalography can now be performed with water-soluble contrast media, and computerised tomography of the basal cisterns and suprasellar region is being done with intrathecal contrast enhancement. Such examinations cause less discomfort and result in less radiation to the patient than polytome pneumography and will be preferred in many centres.

This is a carefully prepared work. It is well-presented, and the illustrations are of good quality and well-labelled. The book will be of value for the anatomical demonstrations even for those moving on to the newer methods of investigation.

P. MACPHERSON

Neuro-otological Examination By Takuya Uemura, Jun-Ichi Suzuki, Jiro Hozawa, and Stephen M. Highstein. (Pp. 175; illustrated; £28.25.) University Park Press: Baltimore and London, Igaku Shoin Limited: Tokyo. 1977.

In this Paper Age it must happen rarely that a new book does not have to jostle for elbow room in an overcrowded market. Significant gaps are rare in the medical bibliography, and it is to the credit of Professor Uemura and his colleagues from Tokyo and New York that they have identified and rectified a deficiency.

Obviously it is in rapidly developing young subspecialities, such as neurotology, that such gaps do exist. Unfortunately, for the same reason new books tend to suffer inevitably from "publication lag", rendering many out of date at, or soon after, publication. Thus, some of the more important deficiencies in this book, which could well have been subtitled *A Handbook of Practical Neuro-otology* are, for example, the use of electrodiagnostic tests such as objective audiometry, tympanometry, stapedius reflex measurements. Regrettably, too, the place of computer tomography in diagnosis has been omitted.

These omissions must detract from the otherwise considerable merits of this book, which packs into its modest 175 pages a lot of good sound clinical guidance in general and vestibular neurology. Especially good is the chapter on equilibrium function tests, including the evaluation of nystagmus.

At a rather pricey £28, however, it is unlikely to be found on the bookshelf of the average general neurologist or ENT surgeon.

NEIL T. BRATTEN

Science and Epilepsy—Neuroscience Gains in Epilepsy Research By James L. O'Leary and Sidney Goldring. (Pp. 302; illustrated; $22.00.) Raven Press: New York. 1976.

My first reactions to this book were unfavourable. Random sampling indicated too little "science" for the advanced worker, and too little clinical and, especially, therapeutic information for the clinical neurologist. But the chapters are just the right length for reading in the train, and I soon found it compelling reading. Of course I should have known it all, but I didn't. The book has obviously been written for the American "neuroscience" market. It successfully provides enough historical and other background information to orient a newcomer and to refer him to appropriate sources. The anatomical and physiological sections adroitly draw attention to the most significant aspects of these subjects in so far as they are relevant to epilepsy. Indeed, as I read them my respect for this book grew. It would be a useful introduction for house staff or for clinical neurophysiologists. It is sad that there are so few "neuroscientists" of the American type in this country. It is to be hoped that we have not fallen too far behind when the National Health Service gets around to upgrading medical science instead of administration and doctor's salaries.

J. A. SIMPSON

Depression and Schizophrenia. A Contribution on their Chemical Pathologies By H. M. van Praag. (Pp. 260; illustrated; £15.00.) Spectrum Publications: New York. 1977.

Despite the considerable interest in monoamine hypotheses of mental illness during the past decade, there has been no single volume which reviews this complex area. The present monograph fills this important gap and is devoted almost entirely to monoamine hypotheses in depression and schizophrenia. There can be few other authors with such an excellent understanding of the field who could have produced such a lucid and authoritative description of the present state of the art.

The idea that some deficiency in the cerebral monoamines noradrenaline and/or 5-hydroxytryptamine (5-HT) might be involved in depression and other affective disorders stems largely from our understanding of the mode of action of antidepressant drugs, all of which appear to increase the availability of both noradrenaline and 5-HT at synapses in the brain. Obtaining direct evidence for such a hypothesis, however, from patients with affective disorders has proved very difficult. The author points out the limitations of all the available experimental approaches—the difficulty of assessing CNS monoamine mechanisms from measurements of peripheral body fluids or urine, the ambiguities which can arise from single measurements of the concentrations of