Book reviews

Neuropharmacology of Serotonin. Edited by A Richard Green. (Pp 436; £25.00.) Oxford: Oxford University Press, 1985.

When Oxford University Press approached Richard Green to edit a monograph on the neuropharmacology of serotonin they could not have made a more appropriate choice. An acknowledged expert in this field, Richard Green in turn selected a group of specialists to cover a number of current areas of interest in serotonin research. No attempt was made to cover all aspects of the neuropharmacology of serotonin. This approach was perfectly correct and the choice of topics has coalesced into a balanced work of scholarship. Although some will disagree with the areas covered I found the volume of enormous interest and one I shall refer to for many years to come.

The volume starts appropriately with a description of drugs altering serotonin synthesis and metabolism and then proceeds to describe the nature and properties of pre- and post-synaptic 5HT receptors and the second messenger systems. Subsequent chapters deal with the role of 5HT in depression, anxiety and the actions of hallucinogens. Means of assessing brain serotonin activity by electrophysiological techniques and by *in vivo* voltametry are eloquently described. Richard Green together with David Heal provide a detailed evaluation of serotonin mediated behaviours with respect to 5HT receptor subtypes. Finally, the editor optimistically reviews current serotonin research and its clinical implications and looks forward to many further advances. I will in turn, look forward to a subsequent volume which hopefully will keep me well briefed in this exciting field. Overall, a volume I will recommend to my students and colleagues and one for which libraries will find great demand.

P JENNER

Study Guide and Self-Examination Review for Core Text of Neuroanatomy. 3rd Ed. By Malcolm B Carpenter. (Pp 181; £14.00.) London: Williams & Wilkins, 1985.

This guide contains over 1000 multiple choice questions on neuroanatomy, all linked and cross-referenced to the recently revised Core Text of Neuroanatomy by Professor Carpenter. Answers are given at the

end of each chapter with a brief comment and direction to the appropriate page or diagram in the Core Text.

A particularly nice feature is the inclusion of diagrams and photomicrographs as a basis for some questions; this makes for welcome relief in a rather daunting task. One does not read multiple choice questions for pleasure, of course, but for the serious student, and for teachers at all levels, this volume will be a boon. Clinicians wishing to review their neuroanatomy could do no better than use this as a basis for revision and updating.

This is a slim volume, and the price is perhaps a little high, but one cannot begrudge this in view of the value of the contents.

NIGEL LEIGH

Studies in Neuropsychology. Selected Papers of Arthur Benton. Edited by Louis Costa and Otfried Spreen. (Pp 350; £36.00.) Oxford: Oxford University Press, 1986.

Arthur Benton has a long and very distinguished career in neuropsychology. During the last 50 years or so he has published more than 200 papers and this book brings together 27 of them, together with 2 previously unpublished studies. In addition it includes a comprehensive bibliography for those who may wish to research Benton's work more thoroughly.

This volume is by no means a general neuropsychology text. But it was never intended to be one. However, it contains representative works of Benton on several clinical conditions and it includes related empirical studies and methodological issues in the field. Those who seek detailed microanalysis of most neuropsychological syndromes and exhaustive test batteries will not find them here. Is there a need for such a volume? I think the answer to this question should be an emphatic "yes". Benton has been a most prolific writer in the speciality of neuropsychology and his work has been amongst the best and least known. He has published in diverse sources which are not always easily accessible and yet, I believe, his contributions merit close examination by all workers in the field. Of course, reading some papers which were written 20 years ago or so may not be one's idea of becoming informed in a particular scientific endeavour. Nevertheless Benton has always formulated a clear statement of what was previously known about the correlates and determinants of a condition and most of his statements are as

valid today as when they were first published.

The book is divided into nine sections. The range of topics is fairly wide, addressing problem areas such as *Aphasia, Cerebral Localization and Hemispheric Dominance, Constructional Apraxia and Spatial Abilities, The Gerstmann Syndrome, Developmental Neuropsychology and Approaches to Clinical Methodology*. Benton's approach to his topics is characteristically "evolutional". That is, he gives authoritative reviews of the development of concepts, reflecting on both theoretical and empirical issues and drawing his conclusions with acumen and clarity. One may or may not necessarily agree with all his conclusions but the reader is easily able to follow his line of argument and knows the basis for his inferences. In addition his critical reviews highlight the pitfalls many clinicians and investigators may fall into.

It is difficult to select individual topics of special interest and each reader will find certain papers of particular interest. All papers are followed by comprehensive lists of references and the author makes good use of them in the text. The writing is always intelligible, succinct and coherent in style and one is left with a valuable collection of factual material with little, if any, repetition. The book is well produced.

All in all, this is a very good supplementary neuropsychology volume and it is recommended to psychologists, neuropsychologists and neurologists. It is generally an excellent distillate of neuropsychological knowledge in selective areas with a great deal to offer both to the relatively novice and the experienced clinicians and researchers alike.

LUKE KARTSOUNIS

Diagnostic Tests in Neurology: A Photographic Guide to Bedside Techniques. By E Wayne Massey, A Bernard Pleet and Barbara J Schekokman. (Pp 144; £14.50.) Chicago: Year Book Medical Publishers Inc. UK Distrib: Blackwell Scientific, 1985.

The authors describe this paperback as a photographic guide to bedside examination techniques and state it is based on Dr Robert Wartenberg's *Diagnostic Tests in Neurology*. Certainly his name features more than thirty times in the 130 pages. The format follows a familiar pattern with chapters on history taking, examination of mental status, the cranial nerves, pyramidal, extra-

pyramidal and cerebellar systems, the peripheral nerves and muscles, the sensory system and certain mechanical tests.

Many pictures are shown but these are inferior to those found in the Medical Research Council's *Aids to the Examination of the Peripheral Nervous System* which is only one eighteenth of the price. The authors give details of many common examination techniques with some useful tips, for example the early signs of a pyramidal fault. Some explanations seem unclear, such as in the sections on hemifacial spasm and the action of the accessory nerve. The outdated classification for levels of consciousness is used with no mention of the International Coma Scale. The descriptions of the extracocular movements, nystagmus and pupillary function are poor and these are covered in a much better way in Ross' *How to Examine the Nervous System* for the same price.

Although this work contains much useful information I found it disappointing. Furthermore I thought the topics were already covered in a better way in other works which gave more value for money.

T FOWLER

Computer-Aided Electromyography. Edited by J Desmedt. Basel: Karger, 1983.

This is Volume 10 in a series called *Progress in Clinical Neurophysiology*, which has so far treated topics as various as language and hemispheric specialisation, supraspinal motor control, and the clinical uses of evoked potentials. The aim of the book under review, in the words of its distinguished editor, is to answer the question: "How could a minicomputer facilitate and upgrade my daily electromyography (EMG) practice?", a question to which the wary response of this reviewer is "not at all". The dilemma is an old one: that the seemingly worthwhile effort to make EMG "a fully automated process, so that the intervention of the electromyographer may be extremely reduced", as one contributor to this volume puts it, is apt to lead to results which are unhelpful, misleading or merely fatuous unless tempered by the subtle corrections and allowances made by experienced hand, eye and brain in the course of each neurophysiological examination. How far do the 13 commissioned chapters in this book, written by leading practitioners in the field, neurologists, neurophysiologists, electronics engineers and computer experts, go towards

allaying doubt, advancing our practice and improving the help we give patients?

The book is worth acquiring for two chapters alone, which constitute a third of its length. These are the masterly review of power spectrum analysis by Lindström and Petersen from Gothenburg, and the vigorous and imaginative account of computer systems used in Uppsala, by Stålberg and Antoni. Anyone sufficiently interested to give these chapters the attention they deserve will not rest until he has visited the laboratories concerned. Indeed there are other chapters from Gothenburg, dealing with power spectrum analysis in children, data processing in ergonomics, and advances in the myoelectric control of multi-functional prostheses. On more familiar clinical ground Hayward from Liverpool and the Warsaw duo of Kopeck and Hausmanowa-Petrusewicz give useful accounts of the methods over which they have laboured these many years. Sadly, in neither case has a method of wide appeal emerged, useful though each has been to its progenitors. Among the other chapters of technical interest are those by Andreassen on motor unit firing, Meyer and Hilfiker on computerized motor neurography and Mambrito and de Luca on *Acquisition and Decomposition of the EMG signal*.

In short, this is a well-produced book in which everyone engaged in trying to automate the EMG will find something valuable, or even invaluable. The clinical electromyographer trying to decide whether a pain in the hand is due to arthritis, nerve compression, both or neither, must be allowed a measure of friendly scepticism.

The writing varies, as might be expected, from the lucid to the impenetrable. It should surely be part of an editor's function to discourage the use of, or even expunge, a phrase such as "optimize the decision parameters".

J PAYAN

Myoclonus. (*Advances in Neurology* Volume 43.) Edited by Stanley Fahn, C David Marsden & Melvin H Woert. (Pp 750; \$137.50.) New York: Raven Press, 1985.

Inevitably the first reaction must be surprise that such a weighty monograph running to over seven hundred pages can be devoted to the subject of myoclonus. But this book, the latest in the *Advances in Neurology* series, is

a rewarding addition to the literature of a complex disorder that has long suffered from problems of classification and definition.

Fahn, Marsden and Van Woert have brought together a powerful team of contributors. *Myoclonus* starts with a large section devoted to clinical aspects taking in myoclonus epilepsy, essential myoclonus, and myoclonus associated with degenerative diseases of the cerebellum. There are valuable sections on asterixis, post hypoxic myoclonus, restless legs syndrome and a fascinating contribution on excessive startle symptoms. Palatal myoclonus and spinal myoclonus are fully reviewed but it seems scarcely justified to include chapters on preliminary experience of the use of Lisuride or Piracetam in the treatment of myoclonus.

The section devoted to electrophysiological aspects of myoclonus must remain disappointing since we seem as far as ever from any detailed understanding of the electrical mechanisms underlying this phenomenon. But this is probably because the most important progress in this subject has been the appreciation in the last two decades that neurochemical mechanisms, and particularly the serotonergic system has a fundamental role in the genesis of myoclonus. The last three sections of this book will prove an invaluable source of reference material and up to date review for the research worker. The brain serotonin system is described in detail (and it is noteworthy that nearly all the work reviewed has been carried out in the last ten years). It is not criticism of this book that many of the mechanisms underlying myoclonus and its pharmacology still want elucidation. But the final section reviews the mechanism of action of clonazepam, valproic acid and other drugs in the treatment of myoclonus.

One cannot help feeling at the end of this book that we stand on the threshold of a proper understanding of this rare but fascinating phenomenon. This detailed review of the subject is timely because it brings together so much recent progress in our understanding of the condition, and it once again emphasises the momentum in neurology towards research into the biochemical and neuropharmacological basis of brain disorder.

Myoclonus deserves a place as an up to date reference work in departments of neurology and university libraries, and should be accessible to research workers and neurologists investigating serotonin mechanisms of advising on the management of unusual seizure or movement disorders.

RB GODWIN-AUSTEN