Book reviews

Principles of Neural Science. Edited by Eric R Kandel and James H Schwartz. (Pp 731; £22.50 paper, £45 board.) London: Edward Arnold, 1981.

Combined neuroscience courses have now been taught in universities and medical schools for some years. However, many of the standard textbooks are woefully inadequate in their treatment of the brain sciences, and indeed, there are few books available covering the topic from a scientific viewpoint. This new book therefore is extremely welcome, and deals with almost all the topics found in a typical second year science or medical degree course. Since this is an introductory text, the treatment of each topic is not exhaustive, and many people may find their own particular subject, such as the X, Y and W ganglion cells of the retina, long latency stretch reflexes in muscle, or the details of gating mechanisms for pain, covered only briefly. Yet on the whole this text provides a balanced introduction to the neurosciences.

The book is well-produced, and, in the tradition of all good American textbooks, is very pleasing to the eye—an essential prerequisite for undergraduate teaching. There are an enormous number of newly produced illustrations, most of which provide a clear and excellent summary of the text. Each of the chapters is written by a member of the course team at Columbia university, which gives the book an overall unity which is usually so lacking in multi-authored texts. However I find it difficult to believe that this book is simply a version of the normal student teaching course. The scope is quite enormous, from single cell physiology to the pathology of schizophrenia, and it seems more likely that courses in different universities will cover only various portions of the book, rather than follow it through chapter by chapter.

Despite its all-embracing title "Principles of Neural Science", this is really a human neurophysiological textbook. Neuroanatomy is not covered in detail, since this would be practically impossible in one volume, but there are very useful short chapters at intervals covering relevant anatomical detail. Neuropharmacology is mentioned only towards the end of the book in the section on behaviour and learning.

Examples from human neurology are used well and provide concrete detail to which students can refer. The book ends with three appendices dealing with simple models of current flow in neurons, the cerebrospinal fluid and neuroradiological techniques, including interpretation of CT scans, and the physical laws of neuro-ophthalmology.

It is a pleasure at last to recommend a complete and up-to-date introduction to the neurosciences.

J ROTHWELL

DSM-III Case Book. A Learning Companion to the Diagnostic and Statistical Manual of Mental Disorders, 3rd Ed. Edited by Robert L Spitzer, Andrew E Skodol, Miriam Gibbon, Janet BW Williams. (Pp 400; Board \$29.95, Soft \$16.00.) Washington: American Psychiatric Association, 1981.

Although British psychiatrists must be given the credit for bringing to attention the marked differences in diagnostic habits between themselves and their colleagues abroad, and for first developing relatively sophisticated techniques for the assessment of psychopathology, there can be little doubt that the new American classification, the DSM-III, is going to have profound repercussions in this country with regard to our own diagnostic habits. The product of much hard work, it has produced a multiaxial approach to the evaluation of psychiatric disorders with precise descriptions and many categories additional to the earlier classifications such as the DSM-II. Clearly grasping the intricacies of such a scheme is difficult, and the DSM-III Case Book has been introduced in an attempt to help those who wish to explore this field further. It presents case vignettes from real patients which have been edited to focus specifically on information relevant to the differential diagnosis. The latter is then discussed and difficulties of interpretation highlighted. In one section the differential diagnosis of particularly difficult problems is analysed and the authors discuss their reasons for a particular choice in preference to others. Coming to know the DSM-III using such a manual is more interesting than labouring through the DSM-III itself and provides a useful way for clinicians to gain experience in applying the diagnostic principles. In particular, British psychiatrists should note that the DSM-III

criteria are more explicit and strict than the 9th revision of the International Classification of Diseases (ICD 9) and that the multiaxial classification introduces personality disorders and specific developmental disorders in axis 2, physical disorders in axis 3, and psychosocial stresses and the highest level of functioning over the past year in axes 4 and 5. As such they should take note of it, and this unusual book, available in both soft and hard covers, is recommended as one way of achieving this.

MICHAEL TRIMBLE

Peripheral Neuropathies: Report of a WHO Study Group (Pp 138; SW Fr 9.) Geneva, World Health Organisation, 1980.

This small handbook is the result of a meeting in Geneva in 1979 of a WHO Study Group on Peripheral Neuropathies. It should be emphasised that this is a different organisation from the Peripheral Nerve Study Group which has met in alternate years either in Europe or in the United States during the last decade. Indeed it is doubtful from the list of participants whether there has been any overlap in membership between the two groups.

In general this report provides a concise and informative account of current problems concerning peripheral neuropathies. As with any small volume dealing with a large subject, however, there are omissions. In the section on the cellular biology of peripheral nerves, for example, axonal transport and biochemical features are well covered, including a detailed consideration of gangliosides and their possible role in treatment, whereas pathological and physiological aspects fare less well. Little attention is paid to the work of Aguayo's group on neuronal/Schwann cell relationships, and recent work on the distribution of sodium and potassium channels and on the problem of saltatory and continuous conduction in demyelinated nerves is omitted. In the clinical section there is a classification of peripheral neuropathies which attempts to incorporate pathological distinctions as well as aetiological ones. This leads to some difficulties; for example, "peroneal muscular atrophy" is included among the axonopathies and "Charcot-Marie-Tooth syndrome" among the myelinopathies. There is no discussion of the classification recommended in 1968 by the Neuromuscular Study Group of the World Federation of Neurology, or of the modifi-