aims and it is well produced and clearly illustrated. There is considerable variation in the approach adopted by the different contributors; thus some chapters provide a comprehensive high level review of an extensive field whereas in others the authors select a particular line of work to review in depth. This is a difficult book for the clinical reader who may nevertheless find it useful to refer to particular sections. Advanced workers in the neurosciences should find it valuable.

J. A. R. LENMAN

VIRAL DISEASES OF THE CENTRAL NERVOUS SYSTEM

Edited by L. S. Illis. (Pp. 226; illustrated; £7.50.)

Baillière Tindall: London. 1975.

This very readable short book summarises the present knowledge about the virus diseases and the putative virus diseases of the nervous system. It is particularly valuable in that no special knowledge of virology is assumed, and the terminology of the subject is precisely defined. In the section on the acute and subacute encephalitides the subject matter is largely non-controversial and the chapters are straightforward and always informative. The second half of the book is devoted to the possible role of viruses in some 'degenerative' diseases of the nervous system. This is the subject of much controversy; experimental results often being quite contradictory. Some of this material is possibly partisan but nevertheless it gives a useful introduction to this exciting and increasingly important aspect of neurology. The description of the investigative and experimental techniques will help the non-expert to appreciate the significance of the current concepts and the subsequent developments in this field.

IVAN T. DRAPER

BRAIN, BEHAVIOUR AND DRUGS By David M.

Warburton. (Pp. 280; illustrated; £6.95.) Wiley: Chichester. 1975.

This book is a textbook for graduate and advanced undergraduate students in psychology, pharmacology, and allied medical fields. The author has attempted to explain behaviour in terms of the basic neurochemical systems of the brain. Clinical neurologists will find his thesis of great interest, although at times the technical language is hard to follow and makes reading difficult. The sections on synaptic transmission, spinal and peripheral motor control, the biochemical basis of learning and memory, and the development of intelligence are of great interest to the reviewer, a neurologist. Considerable emphasis is naturally given to animal experimental work and as usual one wonders if it is justifiable to apply these results to explain behaviour in man.

The book is a refreshing change from the usual neurological literature emphasising neurochemical ideas rather than neurophysiological concepts. It seems reasonable to assume that it will become required reading for neuropharmacologists and psychologists.

H. V. MILLAR

BIOFEEDBACK: BEHAVIORAL MEDICINE By Lee Birk.

(Pp. 209; illustrated; £5.20.) Grune and Stratton: New York. 1973.

This book consists of a series of chapters, often complicated and technical, by experts on various aspects of biofeedback, mainly its clinical applications. The editor, clearly aware of the general interest in the topic, furnishes introductory remarks before each contribution to highlight particular points of importance. Of special concern to neurologists are the sections on tension headache, migraine and epilepsy, but other conditions like hypertension, cardiac arrhythmias and Raynaud's disease are also covered, as well as the relationship of biofeedback to psychotherapy. The overall aim of the volume is to put the subject in perspective, assessing what has and what has not so far been achieved. It is a valuable book in that the '*furor therapeuticus*', a term applied to the zeal of the colonial American Benjamin Rush, is condemned and the emphasis is on a sane, positive and realistic approach to biofeedback. Certainly it suffers from being fashionable but does appear to be useful in certain conditions such as tension headache where other forms of treatment have been largely ineffective. Further, biofeedback has the advantage that it positively involves the patient in therapy. Thus, the patient is not merely required to comply with the prescribed regime of medication but he can take steps to assist actively in his treatment programme. This book is on the whole, therefore, timely and informative.

D. F. SCOTT

MODERN CONCEPTS OF CEREBROVASCULAR DISEASE

Edited by J. S. Meyer. (Pp. 181; illustrated; price not stated.) Spectrum Publications: New York. 1975.

The preface to this book suggests that it is a 'practical book written about the diagnosis and management of stroke, or cerebrovascular disease'. Although many of the contributions are excellent it does not achieve, I believe, its aim. One reason for this is the problem inherent in many multi-author publications—namely, the patchy treatment, within a relatively small book, of widely differing areas of disease with mixed underlying pathology.

Mathew's contribution is a detailed scientific account of the methodology of measuring regional

cerebral blood flow but it is then hardly enough to state that it is an impression that regional blood flow and blood volume are diminished in patients with cerebrovascular insufficiency and headaches. His claim that such measurements have 'considerable clinical usefulness' is not convincingly sustained. Welch and Meyer, in a very adequate description of disordered cerebral metabolism following ischaemia are more cautious, and it is clear that both such studies, valuable though they are, will remain in the research laboratory for some time to come.

Miller Fisher's account of the anatomy and pathology of cerebrovascular disease is, as anticipated, comprehensive. No mention, however, is made of the possible role of microaneurysms in hypertensive cerebral haemorrhage, for he prefers his own view that cerebral haemorrhage occurs at a site of lipohyalinosis in a cerebral vessel. Kannel and Woolf review very adequately the risk factors in 'atherothrombotic' disease which have been recognised in the Framingham epidemiological study. Oddly enough, the 'Japanese story' of a high variation in the incidence of cerebral haemorrhage in Japanese in Japan compared with those Japanese domiciled in the United States is still retailed. Kunkle's review of the evidence for this should surely put an end to this myth.

Although containing much useful material, it is unlikely to have a wide appeal to physicians who are concerned with the practical management of cerebrovascular disease.

E. C. HUTCHINSON

DRUG TREATMENT OF EPILEPSY By A. Richens. (Pp. 176; illustrated; £3.80.) Kimpton: London. 1976.

Emphasising the social impact of epilepsy and its disruptive consequences, the 1969 official report, *People with Epilepsy*, visualised a large-scale welfare operation controlled by a multidisciplinary diagnostic team. The general practitioner would be responsible for continuing care, supported by specialist clinics. The actual therapy of epilepsy, the control by drugs of the frequency and severity of fits, was dismissed in two short paragraphs. Though warned of the folly of blind rewriting of prescriptions, practitioners were given no advice about drugs and dosage.

Dr Alan Richens is an exponent of the pharmacokinetics of anticonvulsants and has published an impressive list of studies of their 'life cycle' in patients. This important book is a summary, in clear but not always sparkling language, of his experience of therapy based on personal observations and measurements. Although much of his own work has been on phenytoin and its derivatives and adjuvants,

in this book he draws freely on the mass of relevant literature to illustrate key points in his argument. All anticonvulsants currently in use are surveyed.

To make the most of his drugs the doctor needs to know the details of their physical and chemical behaviour in human tissues: protein-binding and the fraction of 'free' drug, concentration in the various body fluids, enzyme induction and breakdown, competitive inhibition, changes in tissue response; or toxic effects on the nervous and other systems, interference with folate, electrolyte and water metabolism and with endocrine function—insight into these and similar events makes a science of the therapeutic art. Their study leads to those pharmacokinetic principles with which Dr Richens begins his book.

Chapters follow on the diagnosis and therapy of conventional types of epilepsy including the management of epileptic status. There is no dogmatism: the author is almost at fault in leaving the reader with too free a choice. He ends with two excellent chapters on the complications of therapy, drug interactions and iatrogenic disorders, and, finally, with an account of the planning and execution of a controlled clinical trial. His own trial of sodium valproate, subsequently published, was a model of its kind.

This book is a lesson in the art of scientific medicine with the measurement of drug levels playing a restrained but sometimes critical role. Perhaps Dr Richens will succeed, where *People with Epilepsy* failed, in reducing the number of fits per person per year by the simple device of measurement, and by persuading his contemporaries to measure likewise.

C. E. C. WELLS

ATLAS OF ELECTROENCEPHALOGRAPHY IN COMA AND CEREBRAL DEATH By Donald R. Bennett, John R. Hughes, Julius Korein, Jerome K. Merlis, and Cary Suter. (Pp. 254; illustrated; \$66.) Raven Press: New York. 1976.

This atlas is, in the words of the authors, an attempt to share their experience of a total of over 2000 EEGs recorded in patients admitted to a collaborative study of cerebral death by the National Institute of Neurological Diseases and Strokes. They hope it will be a useful reference for electroencephalographers, technologists, and other professional personnel dedicated to the care of critically ill patients, and an aid to surmounting difficulties encountered when recording EEGs outside the laboratory—that is, in the Intensive Care Unit. Of the 244 pages in this book, all but 20 contain full page illustrations of the EEGs in comatose patients, and those who are designated as showing electrocerebral silence. The book is divided into six chapters with a short introduction outlining the aims of the book,