Book reviews

α -aminobutyric acid and more recently opioid and other peptide transmitter-containing neurones of brain have been described. Included in the list of brain peptides pathways are certain familiar hormones of the pituitary such as ACTH, oxytocin and vasopressin.

Fortunately for research a number of drugs already existed which proved to interact with these chemical pathways and others were soon developed. Many of these have proved useful in varying mood, affect and intellectual abilities in Man and have come to be used widely in psychiatry. These drugs also have important experimental uses and it is largely to these that the present book is dedicated.

Drugs, like lesions, can be used to dissect the functional architecture of behaviour. Unlike irreversible focal damage, drug effects are reversible and more importantly influence at a given time diffuse circuitries extending from brain stem to cortex, which have in common a chemical responsiveness. Many of the complex behaviour patterns essentially for survival, feeding, sex, aggression are controlled by extensive circuits of these kinds and drugs are proving valuable in understanding the underlying chemical substrates.

Brown and Cooper have compiled a very useful volume which illustrates well the impact that the experimental use of drugs has had on physiological psychology. The term drug in this context is a broad one extending through dietary nutrients, hormones of body and brain, psychoactive drugs used therapeutically to control appetite or psychological functions, to the presently untouched areas such as learning and memory and the need for drugs capable of modifying deficiencies of these essential functions in the aged. The chapters on food and water intake by Blundell and Latham and by Booth are excellent and illustrate how careful details to the physiological variables and the fine structure of behaviour makes it possible to dissect out levels of organisation. Toates reminds us that this form of "systems" analysis requires operational models not previously demanded in physiological psychology, although very familiar to physiologists. These chapters emphasise behavioural analysis rather than chemical influences, although two kinds of chemical influence are discussed; notably the endogenous chemi-

cal pathways of brain related to food intake control and drugs which can modify food and water intake.

In chapters 6 and 7 the reader is introduced to another major source of chemical influence on brain: the hormones of the pituitary-gonadal and the pituitary-adrenal axes. These chapters are timely and it is appropriate to reconsider the peripheral hormone mechanisms since certain releasing factors and hormones of the hypothalamic-pituitary axis have now been shown to exist in brain and their role in relation to the peripheral system needs to be evaluated. Equally sobering are the chapters on the influence of nutrition and hormones in pre-natal and perinatal development which remind us that chemical influences in the dynamic phases of development are if anything more devastating than those in adulthood and are generally overlooked. It is however proving difficult to study certain brain functions with chemical manipulations. The study of consciousness, (chapter 9) and learning and memory (chapter 10) are striking cases where drugs have not yet been used with success to determine the endogenous chemical basis of the function or to manipulate the behaviour. A number of the problems associated with experiments in this area are also expounded and in particular Cooper's chapter on the pitfalls of drug interactions is a welcome addition to the literature. This area of research is advancing rapidly and the text will inevitably date rather quickly. However, there is sufficient classical material and methodological content to make the book valuable for the advanced undergraduate and postgraduate student.

SD IVERSEN

The Pathophysiology of the Migraine Attack By ELH Spierings (pp 52; Dfl 25) Brussels: Alphen aan den Rijn, 1980.

This short monograph is an excellent summary of the present status of our knowledge of the pathophysiology of migraine. The first two chapters include work on the cranial and cerebral circulation, whilst the largest chapter in this first section (Observations of the migraine attack) is concerned with biochemistry, including a review of the

relevant neurotransmitters in blood and CSF.

The main burden of the book is experimental data on the action of anti-migraine drugs using microspheres in animal work, and supports the thesis of arteriovenous anastomoses opening up as a basis for the migraine attack. Since the time that Heyck put it forward the latter thesis has been denied in recent years but, for any doubters, this is necessary reading and I would recommend it to any clinician interested in migraine—which must surely include every neurologist.

F CLIFFORD ROSE

Management of Peripheral Nerve Problems edited by George E Omer and Morton Spinner (pp 984; £37.25) London: WB Saunders Co, 1980.

The title of this book is a little misleading as the problems considered are largely restricted to those of a surgical nature, mainly in relation to nerve injury. The advances in this field in recent years have been substantial and occasioned by developments such as the introduction of sophisticated electrodiagnostic procedures, the use of microsurgical repair techniques and the experimental analysis of nerve injury by quantitative morphometry and electron microscopy. This book is edited by two orthopaedic surgeons whose interest in nerve injury was stimulated by experience in the US Army and later in civilian practice.

The time was certainly ripe for a compilation of this type. The book is divided into sections that range from diagnostic techniques, through the assessment and treatment of pain syndromes and the consequences of various types of nerve injury, to techniques of nerve repair and the rehabilitation of patients after nerve injury. Attention is also given to the treatment of peripheral nerve tumours, leprosy neuropathy and neurological involvement in rheumatoid arthritis. It concludes with a section on laboratory techniques for the experimental study of nerve injury.

This book will clearly provide a useful and comprehensive survey of an expanding field. In a work with a large number of authors, there must inevitably be a certain lack of uniformity as to the quality of the contributions. In general, the standard is high, although

there is perhaps a tendency to an overdidactic approach. A number of the techniques and procedures described, such as fascicular repair, the management of brachial plexus injuries and the treatment of pain by electrical stimulation or acupuncture, are as yet not fully evaluated.

PK THOMAS

The Science and Practice of Clinical Medicine. Vol 5 "Neurology" Edited by Roger N Rosenberg (pp 718; £22.20) New York: Grune & Stratton. Distributed in UK by Academic Press, London, 1980.

This book, edited by Dr Rosenberg, an eminent neurologist, is one of the volumes of the series "The Science and Practice of Clinical Medicine". The book is multi-author and expert, with contributors drawn from most of the well-known universities and medical centres of the USA. It is a straightforward book with few idiosyncrasies, well printed and reasonably illustrated. The case for writing a monograph or producing a multi-author expert work on a relatively circumscribed subject, giving the current state of theory, practice and ideas on, say, Jakob-Creutzfeld disease or muscle disease, is self-evident. The argument for producing a new text-book is less obvious. There has been a considerable increase in the understanding of the scientific basis of neurology in the fields of neurochemistry, neuropharmacology, neuroimmunology and neurobiology. The editor's aim is to produce a review of these new developments, and the revolutionary use of computerised scanning, within the format of a standard type of text-book. There are some strange omissions: for example the Glasgow coma scale is advocated but there is no mention of the workers who formulated it; benign intracranial hyperten-

sion does not seem to appear at all, neither in the text, nor in the index; the only reference to normal pressure hydrocephalus appears to be as part of the differential diagnosis of Parkinson's syndrome; a table lists "Common and Treatable Causes of Dementia" and the first example is Huntington's Chorea and on the first page of this table, ten out of thirteen causes of dementia are in fact untreatable.

On the whole the book is good but existing books and monographs probably fulfil the same function and the advantage of monographs is that they should be more easily up-dated. Nevertheless the book contains much of interest with a comprehensive list of chapters including neuroradiology for the clinician, and a useful chapter on drug abuse and nervous system toxins. Within the limitations mentioned, the book is recommended for students and physicians.

LS ILLIS

Aging and Mental Disorders. Psychological Approaches to Assessment and Treatment By Steven H Zarit (pp 454; \$19.95) New York: The Free Press, 1980.

"Sir, a woman's preaching is like a dog walking on his hind legs. It is not done well; but you are surprised to find it done at all."

The reader might well echo Dr Johnson's sentiments when faced with this book. The flysheet tells us that this book is intended for "all psychologists, psychiatrists, social workers, gerontologists, psychiatric nurses and students working with the elderly." Indeed, the topics covered are catholic in the extreme, including basic ageing processes; biological, psychological and social; psychopathology and assessment covering all physical and psychiatric disorders and a final section on treatment

including not only psychological and social therapies, but also "Treatment of Brain Disorders."

How does the author do it? By selection and inclusion of many references culled from a wide number of sources and a compressed style in which quoted sources appear to reveal undisputed truths. The number of references quoted is remarkable, but one is left in some doubts as to whether the author can see the wood for the trees.

The clinical aspects of the book are also over-inclusive on one hand, taking in the whole field of depression but omitting more recent work relevant to the borderland between depression and dementia, and failing to review the genuine diagnostic problems which lead to such frequent and tragic mistakes in failing to diagnose old age depressive states. The review of organic states also suggests an unfamiliarity with the clinical problems and few would be helped in diagnosing acute confusion by the presence of "connotative language changes."

Though the scope covered by the book is wide ranging, it is unselective, failing to differentiate the most important issues, incomprehensible to a beginner in the field and of little help to clinicians seeking further clarification of their older patient's illnesses.

K BERG

Correction

In the paper "Toxic substances and the nervous system: the role of clinical observation" by Dr Pamela M Le Quesne (JNNP 1981; 44:1-8) Mr A Brown was incorrectly referred to as a member of the Developmental Neurobiology Unit at Carshalton. Mr Brown is attached to the Medical Research Council Laboratories at Carshalton.