concussion. There are other chapters of interest on the role of fusion in the management both of cervical and of lumbar pain.

The radiographs in this volume are rather disappointingly reproduced, and there are several occasions when the discussants (whose remarks are quoted at the end of each chapter) refer to data which are not included in the published text.

Although relatively few are likely to want to include it in their personal libraries, this is a volume which many will want to place on the shelves of their departmental library in order to refer to it from time to time.

ANTONY JEFFERSON

PARKINSONISM: Physiology, Pharmacology and Treatment By Donald B. Calne. (Pp. xii + 136; 21 figures; £2.25.) Edward Arnold: London. 1970.

To make the most effective use of L-dopa in the treatment of Parkinsonism it is desirable to have some understanding of the mechanisms of the main symptoms of the syndrome. This book contains a valuable discussion of some aspects of motor control but the space devoted to the basal ganglia is surprisingly meagre and omits much relevant work. The righting reflexes are scarcely mentioned. Hypokinesia is described but its physiological basis not adequately discussed despite the amount of space devoted to motor control.

The pharmacology of L-dopa and dopaminergic transmission is adequately covered and the survey of treatment is good. As indicated in the title, the book does not deal with the different pathological types of Parkinsonism. Surgical treatment is not covered, nor the relative place of surgery and the different forms of drug treatment.

These comments outline some of the defects of the book, but only because it has the makings of a really outstanding one. It is nevertheless an excellent short account of a topical subject, well produced and reasonably priced.

J. A. SIMPSON

PROGRESS IN BRAIN RESEARCH. Volume 32: Pituitary, Adrenal, and the Brain. Edited by D. De Wied and J. A. W. M. Weijnen. (Pp. xv + 357; illustrated; price not stated.) Elsevier: Amsterdam. 1970.

This volume contains a collection of papers from over 60 eminent contributors delivered at an international conference held in the Netherlands in July 1969. There are four sections each dealing with a main theme.

The first section discusses the central nervous mechanisms for the release of ACTH, and the feed-back control of adrenal corticosteroids over the ACTH output. In one contribution it is postulated that the immature central nervous system might be programmed by adrenocortical hormones with regard to the release of ACTH in response to stress. Such an effect would be analogous to the organization of the nervous system under the influence of gonadal hormones.

The second section deals with the effects of ACTH and adrenocortical hormones on the nervous system,

and includes studies of the chemosensitivity of parts of the brain to corticosteroids. Novel techniques are described, such as the use of multibarrelled micropipettes for recording from single neurones while simultaneously delivering minute doses of corticosteroids by micro-electrophoresis or iontophoresis; at the end of the experiment dyes may be ejected from one of the barrels thus permitting accurate histological identification.

The third theme is concerned with the action of ACTH and corticosteroids on conditioned and motivated behaviour in animals. It is postulated that these hormones act by altering the threshold levels of central nervous processes. Most studies report that ACTH facilitates the acquisition of conditioned reflexes whereas corticosteroids have the reverse effect.

The last section consists of a number of clinical studies. Enhanced intelligence quotients are reported in patients with the congenital adrenogenital syndrome and in girls with progestin-induced hermaphroditism. There are also interesting observations on the secretion rates of cortisol in anxious subjects, in depressives showing 'psychotic disorganization', and in patients after admission to hospital.

The research reported in this book is highly specialized in the sense that it is confined to the pituitary-adrenal axis to the exclusion of other functions of the pituitary controlled by the brain. Yet it covers a wide range from studies of single neurones to observations in man. A compilation of the papers read at a conference must inevitably appear unsystematic in its presentation. Conflicting data can easily be discerned but this carries the advantage of conveying to the reader areas of uncertainty in a field of research which is extending rapidly. This volume will be welcomed by specialists, including clinicians, who wish to keep abreast of this area of neuroendocrinology.

G. F. M. RUSSELL

DIE KOMBINATION HYSTERISCHER UND EPILEPTISCHER ANFÄLLE. (THE COMBINATION OF HYSTERICAL AND EPILEPTIC SEIZURES). By Franz Rabe. Neurology Series Vol. 5. (pp. 112; DM. 38.) Springer: Berlin.

This book is a valuable contribution to the existing voluminous literature on epilepsy. Its value is enhanced by the fact that Dr. Rabe redirects the reader's attention to the late 19th and early 20th century when a combination of epileptic and hysterical attacks was not only discussed but accepted by many. Charcot's 'hystero-epilepsie à crises distinctes' would nowadays correspond to the combination of typical hysterical and epileptic seizures in patients with so-called epileptic personality changes, while Charcot's 'hysteroepilepsie à crises combinées' can be traced to the modern terminologies of affective, reactive and 'awakening' epilepsy.

Dr. Rabe denies the identity of hysteroepilepsy with psycho-motor seizures. He accepts the fact that epileptic and hysterical seizures may occur contemporaneously or may follow each other, and the apparent failure of the treatment of epilepsy may be due to the fact that hysterical seizures may have taken the place of true epileptic ones and have been misdiagnosed.

In many, the differential diagnosis may be difficult and