psychiatry. Hughlings Jackson is claimed to have described Gilles de la Tourette's syndrome before Georges, but many years after Itard. His position on mind-brain relations is shown to be that of an ardent dualist for he apparently dismissed as "scientific blasphemy" all expressions implying an interaction between body and mind. He claimed "there is no physiology of the mind any more than there is a psychology of the nervous system". Hughlings Jackson discussed the mental states induced by alcohol, belladonna, and cannabis as model psychoses. Indeed, his discussions on the effect of alcohol led to sub-division of the highest centres into four hypothetical layers, which were sequentially dissolved by increasing concentrations of raw spirits. Dewhurst then leads us on through Hughlings Jackson's views on consciousness, perception and ideation, delirium and coma, hysteria and dreams. It seems that he was not sympathetic to hysteria. "When a patient does not utter a word, and yet writes well, and swallows well, this fact showing that there is no considerable palsy in the articulatory muscles—we may be almost certain (quite certain I believe), that he—it is usually she—is pretending or that the defect is 'hysterical' whatever that word may mean". This quotation serves to illustrate why we sometimes need the help of a Kenneth Dewhurst to interpret what Hughlings Jackson really meant. We are given no indication, however, of whether Hughlings Jackson had a sense of humour, but it does seem sad to learn that he thought that jokes were "slightly morbid mental statements". Also, he could not have enjoyed his dreams because, apparently, he viewed dreaming as "physiological insanity". But, throughout, we must remember that these views were expressed around 100 years ago, at a time when Hughlings Jackson was forced to state "I do not believe masturbation causes epilepsy, or chorea, or any such symptoms. . . . I admit that many epileptics masturbate. All I deny is the inference that masturbation has caused their epilepsy". Of course, a large portion of the book is devoted to Hughlings Jackson's writings on epilepsy, and in particular on temporal lobe epilepsy. The case of "Dr Z." is discussed at length, this patient subsequently having been identified as Arthur Thomas Myers by Taylor and Marsh (1980).

The final chapters deal with Hughlings Jackson's influence on the development of European and North American psychiatry. The conclusion is that British psychiatrists of the time either ignored his contributions

or misunderstood them. The latter is understandable in view of his rather laboured literary style, and the fact that many of his gems were contained in explanatory notes and footnotes. He had much greater influence on continental workers including Freud. Indeed, Dewhurst believes that Freud acquired much useful information from Jacksonian neurodynamics which he transformed into Freudian psychodynamics. Hughlings Jackson's concepts of positive and negative consequences of brain damage have in fact influenced much psychiatric and psychodynamic thought. Stengel (1954) is quoted as proposing that Bleuler's psychopathology of schizophrenia was inspired by Freud's interest in Jacksonian views of positive symptoms. Hughlings Jackson apparently had an extensive knowledge of the French medical literature, and his ideas exerted great influence in France. Indeed, Charcot is credited with introducing the eponym "Jacksonian". Through Theodule Ribot, the teacher of Pierre Janet, Hughlings Jackson's writings exerted a strong influence on French psychiatry. Failure of memory proceeded with loss of most recent recall but retention of the oldest memories, obliterations of the most complex with retention of the simplest, and erasure of the most voluntary with maintenance of the most of the more automatic memories, became known in France as "Ribot's Law" although the latter always acknowledged that it was based on the application of a Jacksonian principle. Pierre Janet, although he never read Jackson's works, based his concepts of reality on Jacksonian principles. Subsequently, Henri Ey took Jacksonian neurodynamics and merged them with aspects of Freudian psycho-analysis and Janet's phenomenology to create his concept of organodynamic psychiatry. Hughlings Jackson obviously also profoundly influenced the founders of American neurology including Silas Weir Mitchell, George Beard, WS Hammond and James Jackson Putnam. Hughlings Jackson's fundamental concepts of the hierarchical organisation of the nervous system, of the dissolution of the function caused by disease, and of positive and negative symptoms profoundly influenced the evolution of thought in neurology. In this book, Kenneth Dewhurst shows that these concepts, and also Hughlings Jackson's views on consciousness and perception, also profoundly, if often indirectly, influenced concepts in psychiatry. Kenneth Dewhurst states that the main reason for writing this book was

the "general neglect of Hughlings Jackson's writings". His book should reach a wide audience to remedy this defect.

CD MARSDEEN

Computed Tomography of the Head and Spine. A Photographic Color Atlas of CT, Gross and Microscopic Anatomy. By HJ Schnitzlein, Edith Wright Hartley, F Reed Murtagh, Lawrence Grundy and John Fargher. (Pp 117; £14.95.) Baltimore: Schwartzberg, 1983

The book commences with colour photographs of the surface anatomy of the brain labelled in detail but the main bulk of the atlas is devoted to sections of the brain and spinal cord in the plane conventionally used for CT, photographed in colour to increase the illusion of depth and displayed alongside radiographs of the sections and comparable computed tomogram slices from normal patients.

Similar sections of the brain stem and spinal cord stained by the Weil method are included together with a brief description of the function of the more important structures. Though much of the detail on the stained sections is not visible on CT, the precise spatial relationships of the structures is emphasised and is of interest for relating CT abnormalities to clinical presentations. These sections will be of particular value for comparison with nuclear magnetic resonance images, which reveal the internal structure of the brain in detail.

All the anatomical photographs are of excellent quality; the labelling is accurate and the brief text is useful and adequate. It is disappointing that some of the CT sections are not of the same standard and the labelling and descriptive text could have been considerably more detailed. For example, notes on precise recognition of the important sulci which border clinically significant regions of the brain is lacking. CT sections of the posterior fossa are suboptimal and none were made with intrathecal contrast medium so as to display the cranial nerves and detailed anatomy of the basal cisterns and the soft tissues of the neck including the parotid gland and the pharynx are inadequately labelled on the CT sections.

Students of neurosciences and both clinicians and radiologists interested in the interpretation of axial images of the nervous system will find this atlas useful in its present form but one hopes that a new edition

Book reviews

tion with more detailed CT images will soon be forthcoming.

BRIAN KENDALL

Cerebral Vascular Disease 4. World Federation of Neurology 11th Salzburg Conference. Excerpta Medica International Congress Series 616.

Edited by JS Meyer H Lechner M Reivich and EO Ott. (Pp 311; \$76.50.) Amsterdam: Elsevier Biomedical Press BV, 1983.

This book contains the Bertha Memorial Lecture and fifty-three papers selected for presentation at the 11th World Federation of Neurology Meeting held in Salzburg in September 1982. The papers are divided into five sections covering Regulation of Cerebral Blood Flow and Risk Factors, Neuroimaging Techniques, Critical Evaluation of Therapeutic Approaches, Cerebral Perfusion and Metabolism in Relation to Function, and Migraine.

In the Bertha Memorial Lecture Sokoloff outlines the principles behind the 2-deoxy-D-glucose method of studying glucose metabolism and illustrates the impressive results obtained by autoradiography in studying the close coupling between local functional activity and local glucose metabolism. For example, in the rat, the rates of glucose utilisation in the primary projection areas of the retina are directly proportional to the logarithm of the intensity of retinal illumination. The deoxy-glucose method can now be applied to man using positron emission tomography (PET) though the resolution is lower than that obtained by autoradiography. Using this method WD Heiss *et al* have shown reduced cerebral metabolism distant to the site of infarction and suggest that in part this is due to deafferentation. Other papers emphasise the ability of PET to demonstrate the dynamic changes in blood flow and regional metabolism occurring after acute infarction.

Nearly one fifth of the papers are concerned with the measurement of cerebral blood flow (CBF). The normal decline with age is enhanced in subjects with risk factors for cerebro-vascular disease and the "hyperfrontal" distribution declines with age and in patients with Parkinson's disease. In rhesus monkeys autoregulation in the vertebral arterial system is less efficient than in the carotid system, which may be of beneficial effect in protecting against hypotension (M Tomita *et al*).

In the neuroimaging section it is perhaps surprising that there is only one paper on

nuclear magnetic resonance imaging. Venous digital subtraction angiography (DSA) and Doppler techniques in the study of carotid disease are discussed in three papers, but only in one are they compared with conventional angiography. DSA fails to identify lesions in a small proportion of cases, whereas Doppler studies tend to overestimate the presence of disease.

Whether aspirin is of benefit to patients who have sustained a TIA is still unclear. The French "AICLA" study provides evidence that aspirin may be of benefit in preventing re-infarction in patients with minor completed strokes. Other papers discuss circulating platelet aggregates in patients with vascular disease and others concentrate on the inhibition of platelet aggregation by low and high dose aspirin therapy and by other drugs.

Sjaastad *et al* provide an interesting review of chronic paroxysmal hemicrania and compare the autonomic disturbances that further identify it as a separate entity to cluster headache. The relationship between changes in CBF during a classical migraine attack and the spreading depression of Leao is discussed.

This book is worth browsing through, though the price is against adding it to ones own bookshelf. Although many of the papers are short and lacking in detail, and much of the data have been published elsewhere, in some cases since the conference, the wide range of topics covered is likely to include something of interest for all.

D HILTON-JONES

Intervertebral Disk Diseases: Causes, Diagnosis, Treatment and Prophylaxis. By Jurgen Kramer. (Pp 221; £36.00.) UK: Year Book Medical Publishers Ltd, 1981.

This book is a translation of a work by a Dusseldorf orthopaedic surgeon. It sets out to provide a comprehensive account of disease of the intervertebral discs at all levels of the spine. It is beautifully produced and illustrated and contains much useful basic information, especially about the anatomy and physiology of the vertebral column and associated structures. Having said this, however, this reviewer must confess that he did not find this a satisfactory book. It is written in an awkward style that often requires several readings for one to be able to grasp the meaning of a passage. Whether this is a reflection of the German original text or is due to an inept translation is difficult to say. The use of a number of terms and concepts unfamiliar to the

English-speaking reader does not make the task of following the text any easier. Furthermore this book lacks sufficient critical appraisal of the problems of diagnosis, assessment and management that are involved in a busy spinal practice. Much of the book is written in a rather dogmatic tone that is not really appropriate in a field where many accepted practices are not based on firmly established information and where their efficacy is to some extent dependent on a correct assessment of the personal circumstances of the individual patient. For instance there is no real discussion of the interaction between psychological factors and the physical symptoms of spinal degenerative disease. Even the discussion of such topics as the indications for exploring a lumbar disc protrusion, or the results of lumbar disc surgery, are simply not adequate either for the beginner in the field or for the experienced spinal specialist. Sadly this reviewer found this monograph disappointing and cannot recommend it, especially in view of its not inconsiderable price.

RS MAURICE-WILLIAMS

Management of Head Injuries. By Bryan Jennett & Graham Teasdale (Pp 351; £38.50.) Philadelphia: FA Davis Co, 1981.

This is a most important publication on head injuries; it contains the experience, results and conclusions of the Glasgow team presented as one might expect in an eminently logical and readable fashion. The title should be taken in its widest context as it covers more than medical in-patient treatment. The first chapters are devoted to epidemiology, pathology and patho-physiology; the text of these chapters is simple and comprehensive. The following chapters are concerned with the clinical investigation, assessment and treatment of head injured patients with particular reference to the Glasgow experience with international comparisons. These chapters are particularly eloquent and aspects of the "aggressive" treatment of head injuries such as intracranial pressure monitoring, ventilation, steroids and barbiturates are objectively discussed. The illustrations and diagrams are in black and white and, surely, the next edition will be improved by the introduction of fourth generation CT Scans and perhaps also NMR and PET images. Chapter 9 is concerned with the management of acute injuries and this should be compulsory