The Neurobiology of Autism. Edited by MARGARET L. BAUMAN and THOMAS L. KEMPER. Published by Johns Hopkins University Press, Baltimore 1994. (Pp 257; £72.50). ISBN 0-8018-4764-8.

This book provides a useful and thorough overview of a number of different aspects of the neurobiology of autism. The contributing authors are all American, and most hail from the east coast. After an introduction and overview by Isabel Rapin, the book commences with a discussion of the genetics of autism by Joseph Piven and Susan Folstein. They report the evidence showing that autism is a highly heritable condition as well as data indicating that the liability is not for autism *per se* but for a more broadly defined phenotype including milder cognitive and social deficits. Michelle Dunn then describes the neurophysiological findings in autism and their implications for neurological dysfunction. Two chapters with Nancy Minshew as lead author describe CT and magnetic resonance findings, after which Barry Horwitz and Judith Rumsey report the PET results. It is clear from these chapters that a coherent set of findings is still some way off and that the lack of consistency between studies may reflect clinical heterogeneity. Margaret Bauman and Thomas Kemper discuss the neuropathological observations and highlight the maturational abnormalities found in the cerebellum and limbic system (hippocampus and amygdala). Subsequently Jocelyne Bachevalier describes the contribution of medial temporal lobe structures to neurobehavioural problems in primates. Memory deficits in autism are described by Ronald Killiany and Mark Moss. Jeremy Schmahmann describes the possible role of the cerebellum in autism and George Anderson details the neurochemical findings.

Finally, Margaret Bauman and Thomas Kemper write an epilogue. One of the things that they say in this epilogue is that "We now have a wealth of descriptive information about the clinical and neurobiological features of autism without a clear framework with which to fully understand the implications of these observations". At present this is the crux of the issue. Despite a welter of studies and data there is little integration across descriptive levels and disciplines. The focus in this book on the cerebellum and temporal lobe structures and the possible effects on memory and affect expressions, recognition and regulation suggest the possibility of an integrative theory. Understandably, this is never fleshed out, but it would have been nice had the contributing authors been made to consider explicitly how the genetic, neurochemical, neurophysiological and neuroanatomical findings might be interrelated. Perhaps the most striking omission from the book concerns the recent burgeoning evidence for a lack of the theory of mind in individuals with autism and the implications these findings have for neurobiology of the condition. Nevertheless, this book provides a series of useful overviews in important areas of neurobiological research in autism and is a most worthwhile addition to your library.

PATRICK BOLTON

The Basal Ganglia IV. New Ideas and Data on Structure and Function. Edited by GERARD PERCHERON, JOHN MCKENZIE

and JEAN FEGER. Published by Plenum Publishing Corporation, New York 1994. (Pp 616; \$125.00). ISBN 0-306-44639-1.

This collection of papers is a result of the 4th Triennial Meeting of the International Basal Ganglia Society held in 1992. The editors are to be congratulated on the breadth of topics discussed and the citation of 1993 references. However, as with all books of this type there are problems of coherence and repetition. Although several of the chapters provide excellent little reviews (for example Chapter 15 by Ferrante *et al*), many of them provide limited data that cannot be easily accommodated into a clear framework (for example Chapter 19 by Block *et al*). Introductory chapters to each of the seven sections by the editors would greatly help in this respect. In addition many of the chapters cover common ground, unnecessarily repeating themselves—for example, chapters 37, 38, 39 and 57 all discuss in detail the evidence that the subthalamic nucleus is pivotal to the functioning of the BG and thus their role in the development of abnormal movements. Stricter editing of these chapters would have strengthened the value of this book.

Overall the book clarifies many of the issues that are currently at the forefront of basal ganglia (BG) research. For example, the concept that the BG consist of a series of parallel pathways is challenged anatomically, electrophysiologically and pharmacologically. Furthermore it is becoming clear that LTP and LTD may be a feature of the normal striatum and dependent on its dopaminergic innervation. In addition this dopaminergic innervation is not only a classical synaptic phasic one but can also influence the striatal neurons and their impinging cortical afferents by a paracrine tonic release of dopamine. This may be important in the normal functions of the BG especially with respect to their role in non-motor functions and the clinical pathophysiology of BG related disorders.

Therefore this book provides much useful information, but is more of interest to the scientist than clinician. Furthermore its size and price limits its appeal, and so those to whom the book most appeals will have either contributed to it or be in possession of more recent reviews and papers.

ROGER BARKER

Multiple Sclerosis. A Current Status of Research and Treatment. Edited by ROBERT M. HERDON and FREDRICK J. SEIL. Published by Demos, New York 1994. (Pp 241). ISBN 0-939957-28-0.

My initial reaction on being asked to review this book was one of interest to see how it compared to the new edition of McAlpine's Textbook of MS or the recent excellent supplement to the Annals of Neurology devoted to the disease. However, my task was made much more difficult by the instant realisation that it was almost five years out of date. A note added in proof refers to a paper from 1991, but the bulk of the references are concerned with data from the late 1980s, with only a handful of papers cited from 1990. This is a shame as the editors have gathered an eminent selec-

tion of authors, largely from North America, to contribute to the volume, including John Prineas, Don Paty and Jack Antel. I am thus unable to launch upon a tirade on the clinical usefulness, or otherwise, of experimental allergic encephalomyelitis or the lack of benefit on disability from beta-interferon. Unfortunately so much has happened in MS research over the past five years that this book has been consigned to the history of MS section on the bookshelf.

JOHN ZAJICEK

Current Concepts in Parkinson's Disease Research. Edited by Jay S. Schneider and Madi Gupta. (Pp 462, £89.00). Published by Hogrefe and Huber, Kirkland, USA 1993. ISBN 0-920887-72-4.

This book is dedicated to the memory of Dr Richard Heikkila, who pioneered much of the early work on MPTP induced parkinsonism. It is therefore a great shame that it does not serve as a better tribute to him.

The book is presented in an attractive format but there are a large number of major editing errors, for example in chapter 17, figures 6 and 8 are identical. Furthermore the topics chosen for discussion are limited in their perspective and dated in their presentation. In particular the book over-emphasises the MPTP model in an irritatingly repetitive fashion and fails to address its value compared to other models of parkinsonism, most notably the 6-OHDA lesioned rodent. Other examples of this limited approach to aspects of Parkinson's disease (PD) research abound. In the chapter on neurotrophic factors by Schneider only gangliosides are discussed, ignoring the wealth of information on other neurotrophic factors which are of more physiological relevance to the nigral dopaminergic neurons and the development of PD. Indeed the whole book is outdated with no references more recent than 1991. Whilst this can suffice in some areas of research this is not the case for most aspects of PD research, so for example there is no discussion of the DATATOP study or recent clinical trials with embryonic nigral grafts.

There are of course some excellent accounts in this book, especially the chapters by Juncos on diet and related variables in the management of PD and Parent and Lavoie on the dopaminergic innervation of the normal and Parkinsonian primate striatum. Overall though the book is expensive, eclectic and out of date and as a result cannot be recommended.

ROGER BARKER

Stroke Prevention. Edited by WOLFGANG DORNDORF and PETER MARX. (Pp 199 \$59.25.) Published by Karger, Basel 1994. ISBN 3-8055-5882-1.

Our department subscribes to the JNNP and each edition is circulated to every member. By the time a new issue reaches me, it

seems naturally to open at the book review page. Clearly this is the most popular section of the journal and members turn to this section for entertainment and guidance on whether to spend our own (or the department's) money on buying a given book. This particular book was the result of a symposium on stroke prevention held in April 1992 and the text, whilst entertaining in places, is ageing rapidly. For example, the chapter on the role of anticoagulants in stroke prevention in patients with atrial fibrillation was written before the results of the European Atrial Fibrillation Trial came out. This study is the only one which addresses the issue of whether patients with a recent ischaemic stroke or a transient ischaemic attack in atrial fibrillation should be given anticoagulants or not. There is a brief chapter by Kaps on ultrasonic methods to detect emboli, but the area has seen an enormous amount of work published on this topic since 1992 and the chapter is not as useful as it might have been. The British consumer magazine "Which", in describing different products, puts a red star with "this month's best buy" beside it.

Verdict: Not this month's "best buy" (but the chapters on carotid endarterectomy and carotid angioplasty are good).

PETER SANDERCOCK

An Introduction to Progressive Supranuclear Palsy. Edited by: A BRUSA, P F PELOSO. Publisher: John Libbey CIC, Rome 1993. (Pp 125. £30.00.) ISBN 0-86196-443-8.

As a young neurologist in Genoa, Professor Brusa, the senior author of this monograph, became fascinated by the strange case of an elderly man affected with a progressive and apparently previously undescribed neurodegenerative disorder, which he published in *Revue Neurologique* in 1961. Brusa had scoured the available literature for comparable cases and when in 1963 the late Clifford Richardson reported the clinico-pathological findings of nine similar cases, Brusa's conviction that one was dealing with a discrete disease entity, were vindicated. Brusa has remained faithful to the cause and has diligently followed and contributed to the rapidly expanding literature on a disorder which is still considered by most neurologists to be a rarity, and which rivals motor neurone disease as one of the most distressing neurodegenerations encountered in clinical practice.

The authors of this slim monograph are right to state in their concluding remarks, that in its fully established form the disease first reported by Steele Richardson and Olszewski is one of the most distinctive and easily recognisable conditions in clinical practice. However, even when the presentation is classical encompassing all the cardinal features, occasional surprises may occur at postmortem. Furthermore, unusual and atypical clinical presentations are now increasingly recognised, in particular a malignant and relentlessly progressive bradykinetic syndrome, which responds poorly or not at all to L-Dopa. The pathognomonic severe supranuclear vertical palsy

is also frequently absent throughout the whole course of the illness and there is also now a greater recognition of the frequent occurrence of tonic inhibition of levator palpebrae (apraxia of eyelid opening), and cognitive dysfunction of frontal lobe type. Even at postmortem life has become more difficult as the histopathological abnormalities if taken in isolation and without clinical documentation, may at times be indistinguishable from post encephalitic Parkinson's syndrome and lytico-Bodig disease of Guam, even when ultra structural studies on the tangles are carried out.

This book has a superb bibliography of 800 references and I suspect that this will be the part of the monograph which is most useful to neurologists interested in the field. The chapters are at times almost telegrammatic and the book is really a collection of notes. For those interested in getting an overview of current research into Steele-Richardson-Olszewski disease, I would express a preference for either Litvan and Agid's book or that of Tolosa. Nevertheless, for those involved in research into this tragically incurable condition, Professor Brusa's book comes as a welcome additional contribution to the literature from a respected pioneer in the field.

ANDREW LEES

Intellectual Functions and the Brain—An Historical Perspective. By Hans J Markowitsch. (Pp 182 £78.00.) Published by Hogrefe and Huber, Kirkland, USA 1992. ISBN 0-88937-081-8.

Written by an eminent neuropsychologist, this review portrays the dawning between 1870 and 1939 of what is now known as neuropsychology. Given the author's interests, memory and frontal function are given greatest coverage.

The initial chapter relates studies linking brain morphology to intellectual capacity. Such studies are never far from the stench of eugenics. Spitzka's assertion in 1907 that "the brain of a first-class genius . . . is as far removed from that of the savage bushman as that of the latter from the brain of the nearest related ape" is sadly typical.

The path to unravel the mystery of the frontal lobes is well covered. The initial somewhat euphoric claims made for frontal lobe psychosurgery are reported, such as the politically incorrect "excellent adjustment as housewife". Some, however, will sympathise with the statement that psychosurgery is "an excellent technique for treatment of selected cases from private practice".

The bulk of the text concerns memory and its disorders, and is excellent. The focus is mainly on Korsakoff's syndrome, as the crucial role of medial temporal structures in memory was less appreciated at that time.

The persistent impression given by this book is that knowledge is constantly discovered, forgotten and rediscovered. Scoville's surprise in 1954 at bilateral amygdalohippocampal resection causing dense amnesia might have been lessened had he read Bechterew's 1900 report of amnesia due to bilateral hippocampal destruction. Even "false memories" were first described in 1887.

This is a definitive account of neuropsychological research in the chosen period. It is exhaustively referenced, but the lack of an index is a surprising failing. Although its price will dissuade all but the enthusiast, it is likely to prove popular with libraries for the history of medicine.

JOHN GREENE

The Neuropsychology of Mental Disorders. A Practical Guide. Edited by LEONARD F KOZIOL and CHRIS E STOUT. (Pp 326; \$64.75.) Published by Charles C Thomas, Illinois 1994. ISBN 0-398-05905-5.

This book claims to describe recent developments in the neurosciences as they apply to understanding the problems raised by mental disorder. The term "neuropsychology" in the title is misleading in that the subject matter lies at least as much in neuropsychiatry as neuropsychology, with some neurology and bits of neuroradiology thrown in for good measure. Following an initial chapter providing a Cook's tour of some aspects of neuropsychology, the majority of the chapters cover neuropsychological/neuropsychiatric aspects of such things as schizophrenia, mood disorders, substance abuse, post-traumatic stress disorder and forensic psychiatry. These contributions all too often attempt to cover large and complex areas in relatively few pages with the result that the accounts are typically sketchy, sometimes selective in idiosyncratic ways and occasionally misleading. Despite the three words of the title: "A Practical Guide", the book is not strong on "practical advice" and some of the advice that is offered is positively erroneous. For example, "rare causes of Huntington's chorea include hyperthyroidism, use of birth control pills and pregnancy".

Despite the avowed aims, the relevance of the neurosciences to the understanding and management of mental disorders is not advanced by this offering which is clearly something that both personal bookshelves and hospital libraries can survive very well without.

E MILLER

Pediatric Neurosurgery. Third Edition. Edited by William Cheek, Arthur Marlin, David McLone, Donald Reigel, Marion Walker. (Pp 630, £146.00.) Published by W B Saunders Company, London 1994. ISBN 0-7216-3767-1.

The third edition of this popular volume, first published in 1982, has been compiled under the auspices of the Pediatric Section of the American Association of Neurological Surgeons and the American Society of Pediatric Neurosurgeons. As such, it provides an entirely North American perspective to the diagnosis and treatment of a wide spectrum of diseases of the paediatric nervous system.