Rehabilitation Measures. The Neuropathology of Spinal Cord Injury and Other Causes of Cord Damage are in an excellent chapter and well illustrated by D I Graham. Other short chapters on Abnormalities of Cord Development, Complications of Lumbar Puncture and Disorders of the Conus Medullaris are concise and of a high standard.

Common degenerative disorders of the cervical and lumbar spine are addressed by C H G Davis. This contains excellent clinical detail, is well illustrated and gives practical clinical advice about management. I was surprised that only relatively little space is given to the common condition of lumbar spinal canal stenosis. Surprising also is the lack of illustration in the otherwise clear and well referenced chapter by J P R Dick on The Complications of Rheumatoid Arthritis affecting the Spine.

There is a final chapter on Rehabilitation, Walking Aids, Functional Electrical Stimulation and Overcoming Spasticity by R J Weber and B Pentland. It is a shame that this important chapter was not allowed more space since, although it addresses the major problems it is too short for what is a specialist text.

The writing in this book is of a high standard and most chapters are concise and contain good clinical detail. The level of illustration with mainly black and white photographs or line drawings is of a high standard in most chapters. It is up-to-date with magnetic resonance imaging of the spine. The authors' primary aim was to provide a sound and comprehensive manual for the clinician which would be valuable for learning, review and reference. In this regard I think they have achieved their aims.

ROGER E CULL

Parkinson's Disease: Neurobehavioral Aspects. By SJ HUBER and JL CUMMINGS. (Pp 368; Price: £50.00). 1992. Oxford, Oxford University Press ISBN 0-19-506969-2

There was remarkably little interest in the cognitive and emotional consequences of Parkinson's disease until the discoveries of dopamine deficiency and levodopa replacement therapy in the 1960s. These findings kindled a fire of enquiry into all aspects of the illness. Did these chemical changes in the brain cause mental as well as motor effects? Were the basal ganglia involved in thought and mood as well as in motion? Did levodopa affect thinking and emotions as well as movement? Such questions excited all manner of clinical and basic scientists. This volume provides a timely review of the mass of new information on these issues accumulated in the past two decades. Dr Huber and Dr Cummings have persuaded their colleagues, mainly from North America, to digest the evidence as it stands. As well as contributing themselves, the editors have written a final chapter of conclusions and speculate on future directions for research. A pervasive theme is the difficulty of employing standard neuropsychological methods to a condition distorted by a motor disorder. In addition, the need for longitudinal rather than cross-sectional study is emphasised, as is the new direction of hypothesis-led rather than observational research.

This book sets out what we know now. In the cognitive sphere, it is apparent that memory retrieval, some aspects of visuospatial ability, and other functions attributed to the activities of the frontal lobes are impaired in some patients with Parkinson's disease. The major outputs of the basal ganglia are to the frontal lobes. Some authorities now explore the role of frontal lobe systems in terms of their abilities to plan and regulate behaviour, utilizing theoretical models such as those of Norman and Shallice (Executive Supervisory Attentional System), or Baddely (Working Memory). Parkinson's disease is thought to disrupt the superordinate executive role of the frontal systems to cause a range of cognitive abnormalities. Such disruption is seen as cognitive errors as well as cognitive slowing (bradyphrenia).

Two confounding factors, however, constantly intrude into the interpretation of such studies, namely depression and dementia. Depression itself is associated with cognitive inefficiency, and many patients with Parkinson's disease are depressed. Whether such depression is a consequence of the brain pathology of the illness, or a secondary response to the disability it causes is still debated. Those who hold the former view marshall strong evidence to attribute the depression to serotonergic dysfunction.

There is no doubt that a significant proportion of patients with Parkinson's disease dement, particularly the elderly. However, the nature of the dementia in Parkinson's disease often differs from that in Alzheimer's disease (except in those with the misfortune to develop both). Despite widespread criticism, the terms subcortical and cortical dementia still survive to emphasise the distinction. The relative preservation of language, the preservation of memory encoding and storage, but the impairment of procedural memory, and the relatively mild impairment of visuospatial ability and calculation all distinguish subcortical from cortical dementia. However, the exact neuroanatomical and neurochemical basis for this pattern of dementia in Parkinson's disease remains uncertain. Indeed, a recent development which is not perhaps given enough emphasis here, is the recognition of diffuse Lewy body disease. Lewy bodies in cerebral cortex are now realised to be common in Parkinson's disease, and diffuse Lewy body disease may turn out to be the second commonest cause of dementia in the elderly.

Much remains uncertain in this field. The next era will see greater emphasis on the experimental neuropsychological approach to Parkinson's disease, and greater use of functional imaging in life in selected populations. The work under review will provide an excellent starting point for all interested in the field. The editors and contributors are to be congratulated on providing a spring-board for future investigators.

CD MARSDEN

Genetics and Neurology. 2nd Edition (Genetics in Medicine and Surgery Series). Edited by SARAH BUNDEY. (Pp 459 Illustrated; Price: £60). 1992. Edinburgh, Churchill Livingstone. ISBN 0-443-04523-2.

This book attempts a number of difficult tasks: covering neurogenetics in about 450 pages; explaining neurological nuances to clinical geneticists, and explaining clinical and molecular genetics to neurologists. So how are these three labours of Bundey (now in their second edition) achieved?

The first is dealt with by taking a practical approach and omitting descriptions of extreme rarities. Diseases are grouped logically into self-contained chapters, for example phacomatoses and tumours, extrapyramidal disorders, and a contribution on cerebral degenerative disorders of childhood by E.M. Brett. A concise clinical description is followed by a discussion of genetic aspects, including relevant aspects of molecular genetics and advice for genetic counselling. As expected, the latter is full of common sense. Advances in molecular genetics have led to extensive rewriting for this edition, and late additions are summarised in a postscript. Even so, progress has been made in elucidating the genetic defects underlying facioscapulohumeral muscular dystrophy and myotonic dystrophy since the text was completed (presumably at the end of 1991), illustrating the short half-life of up to date texts in this area.

From a neurologist's point of view, the second labour is accomplished with admirable skill, and the author's concern that coverage of clinical aspects is superficial is unfounded. The last labour is not necessarily the least taxing. I suspect that the first edition of this book did not achieve the neurological readership it deserved, and hope that this oversight will be rectified for this edition. It gives a clear account of the applications of modern genetics to neurological practice and is refreshingly free of jargon.

AE HARDING

Atlas of Optic Nerve Disorders. By THOMAS C SPOOR. (Pp 178; Price: $169.00). New York, Raven Press. 1992. ISBN 0-88167-875-9.

The strength of this book is in its illustrations; the retinal photographs, radiographs and line diagrams are all excellent although lacking the extra dimension afforded by fluorescein angiography. The text is a personal and didactic account of the wide range of optic nerve disorders.

It begins with a brief account of structure and function which contains some alarming inaccuracies—the optic nerve fibres, for instance, are said to be unmyelinated—but the major part of the book is devoted to clinical diagnosis and management. The author writes with authority on surgical topics such as tumours and trauma but seems distinctly uneasy on some medical matters, to the extent of devoting only a single page to the optic neuritis of multiple sclerosis. There is scant coverage of the inflammatory or toxic neuropathies and the section on Leber's disease is (understandably) already out of date. There is a helpful chapter on management of 'benign intracranial hypertension' and the place of nerve sheath fenestration; this operation is also 'offered' to patients with non-arteritic ischaemic optic neuropathy. Little mention is made of the numerous other causes of intracranial hypertension The book is replete with personal case-reports, simply and clearly presented, and there is an adequate bibliography.

ROSS RUSSELL