The introductory chapter by R J Douglas sets out the view that the various properties of the visual world such as form, orientation, colour and movement are processed by separate cortical regions with the primary visual system acting as an elementary detection and relay station. However there are differing views on how these regions are arranged. In the hierarchical model, based mainly on morphological studies of neural connections, visual stimuli are analysed for the various properties of form, colour and orientation by successive relay to specific regions at increasing distance from the calcarine cortex. The key proposed major pathways one concerned with what a visual object is and the where it is. The 'what' task is performed by the ventrally situated inferior temporal cortex and the 'where' task by the dorsally situated occipito-parietal cortex. This view is derived from behaviour experiments in animals and on the effects of brain lesions in man. A third view based on physiological recording from various points on the visual pathway proposes that visual information is divided from the retina onwards into two streams, a P (parvocellular) system thought to convey high acuity vision at high contrast and an M (magnocellular) system conveying low acuity visual information concerned with motion and depth perception. The first chapter discusses these theories and the precise ocular-motor mechanisms necessary to maintain high quality retinal images of moving objects. There follow a series of chapters on various visual disorders in man including visual illusions and hallucinations, colour vision, prosopagnosia, Balint's syndrome, object agnosia and residual vision and blindsight. The chapter by Milders and Perrett on facial recognition and by Ruddock on acquired disorders of colour vision are particularly informative and comprehensive. Considering the scope of the book and the different backgrounds and nationalities of the contributors the style is remarkably even. Illustrations are used sparingly, perhaps too sparingly, and the book compares unfavourably in this respect with the superbly illustrated accounts of visual physiology and psychology aimed at the general reader. References are comprehensive and up to date. Altogether this is a scholarly and stimulating book for neurologists interested in how the brain analyses the visual world (and that should include all of us).

R ROSS RUSSELL


Contemporary medical books may have two purposes. Either they can provide fundamental instruction about the principles and practice of clinical medicine, or they may assemble and order factual knowledge for reference purposes. The huge growth in factual detail is a measure of how fewer and fewer medical books combine these roles. Dr Guberman's book is one of a dying breed which tries to serve both functions. I think it is predestined as a textbook, as a manual, as a reference, and for that reason, named 'An Introduction.....' and the preface states that it is intended for 'medical students, postgraduate trainees, non-neurologists, paramedical and basic neuroscience students'. I would be pleasantly surprised if American students, let alone British, would read a book of this size as a basic text. Basic neuroscientists will find it highly detailed information from reference books when considering the clinical context of their own specific research endeavour. Dr Guberman's book might provide a suitable reference text for paramedical students, but surely the book's main niche must be those training in general internal medicine, such as MRCP candidates in the UK. Here it already has the advantage of being derived from established books such as 'Brain and Bannister's Clinical Neurology' and from the neurology chapters of general medicine textbooks.

Dr Guberman is to be congratulated on the exhaustive breadth of his subject coverage making him one of the most generally knowledgeable neurologists around. The disease coverage is comprehensive, well worked out, with extensive referencing to core papers. There is a most useful compendium of the neurological side-effects of therapeutic drugs. Inevitably reviewers can have minor quibbles. Colourful funds photographs would have been more helpful. Unfortunately, the illustrations include too many CT scans and myelograms, sometimes reproduced with mediocre quality, in an era when digital scanning is supreme. Personally I don't believe that you can see fibrillations, rather than fasciculations, in the tongue. How often is it necessary to 'extend the base of support to the spinal fluid pressure when relaxed breathing and only slight unburching from the foetal position generally seem to be sufficient? The extensive sections on clinical method include topics such as probability, Baye's theorem and decision trees. I am never sure about the decision tree model for the diagnostic process. Most neurologists of my acquaintance seem to arrive at the right diagnosis intuitively, only resorting to the decision tree approach in desperation when otherwise baffled. Dr Guberman's advice about testing hypotheses during history taking is sound enough, but it could be somewhat abstract. When faced with a subacutely weak patient, how many neurologists, let alone students, are sufficiently blessed with knowledge or time enough to enquire about 'making lead glass as a hobby or whether he has ever had wine-coloured urine? The advice about the clinical methodology or neurology lacks sufficient encouragement to focus the history on the problem in hand, and to develop the technique of performing a selective, five-minute examination pertinent to this problem. Yet Dr Guberman's account of how to perform the various components of neurological examination is lucid and could be used profitably by students wishing to learn 'how to do it all'.

Dr Guberman has undertaken the difficult task of writing a comprehensive textbook of general neurology by writing 26 out of the 29 chapters himself. I wonder how many more detailed neurological treatises of this quality have been written by a single author, we will see in the future.

MICHAEL DONAGHY

Stereotactic Radiosurgery. Edited by E ALEXANDER III, J S LOEFFLER and L D LINSFORD. (Pp 254, Illustrated; Price: £75.00). Oxford, Blackwell Scientific Publications Ltd. ISBN 0-870-01020-X. Stereotactic Radiosurgery has had an unexpectedly large influence on neurosurgical practice as Charles Wilson points out in his foreword to this excellent book on this subject. As Radiosurgery in its various forms is used in many centres by doctors of widely differing experience and expertise, it becomes more and crucial that its use is securely based on sound principles of radiobiology and physics as well as of stereoax and neurosurgical practice. Its distinguishing point of many other respected exponents of the technique and well placed to give this volume authoritative accounts of the different characteristics of Gamma Knife, Linac, and Heavy Particle therapy, the principles involved as well as the results that can be achieved and pitfalls to be avoided. The range of conditions that have been treated by radiosurgery is wide but it is not panacea and its proper application requires careful selection and disciplined execution. This book offers a valuable survey of the present situation as well as some provocative thoughts about what the future may hold for the method.

D M C FORSTER


This is another book targeted at the growing market of clinical groups seeking education in the surgical treatment of epilepsy. It is a multi-author book divided into four sections. The first deals with prognosis and is a helpful contribution; especially the chapter devoted to epileptic syndromes. The next section deals with preoperative evaluation and is reasonably comprehensive, although the separation of the chapters on basic neurophysiology and the Wada test by a chapter on preoperative psychiatric evaluation is bizarre. Unfortunately the chapter on surgical procedures is weak. Ten pages on cortical resections including temporal lobe resections is quite inadequate. The chapters on outcome are reasonable, although the one on reoperation presents only the editors' own series.

Much of the material in this book is from the editors' own writings, or those of their colleagues, and although much of it is valuable, it does not constitute a good overview. As an introduction to the topic it is excellent, well produced and at a reasonable price, and as such would be a good introduction for trainees in the appropriate neurosciences disciplines, and nursing and paramedical staff who wish to have a detailed account of these matters.

CE POLKEY