

both sides of the Atlantic this is an onerous task.

Some recent books have abandoned the traditional systematic approach and attempted a symptom based classification, for example, taking dizziness, pain in the leg, spastic paresis or blackouts as the starting point, then considering at length the various major diseases falling under these headings. The resulting texts are often inchoate. This book first considers neurological symptoms and signs in relationship to anatomy, including the use and abuse of modern investigations. The second section deals with the common symptom complexes and the third describes more systematically specific pathological processes, their presentation and management. The penultimate chapter concerns the neurology of systemic disease, the last surveys functional and psychiatric disorders.

The authors were successively first assistants in Newcastle, so that a robust practical but scientific trend is not surprising, and is indeed just what is needed by the trainee. In just under 500 pages of two column print, the text covers the panoply of neurological medicine very well indeed. The writing is generally crisp and reflects clinical grasp and facility of a high order. It is a pity that we are left to guess the authorship of each chapter, though the distinctive marks of Bates on MS, Cartledge on coma and Chadwick on epilepsy are not difficult to discern. The exposition and explanations are detailed and up to date throughout the text. The figures are of outstanding clarity, and numerous tables, lists and classifications will greatly ease the acquisition of facts by the student.

This is an excellent text which I would warmly recommend not only to the post-graduates and generalists for whom it is intended, but also to the brighter undergraduate in his final year who seeks a slightly fuller but explicit account of nervous diseases than will be found in the standard student textbooks. Criticisms are few and of a minor order. There are a number of typographical errors; the section on pain and headache is disproportionately brief; migraine and HIV infections are each apportioned only 3 pages, but syringomyelia receives the same coverage. The final section on psychiatry is apt and helpful, but perhaps too brief to do justice to the clinician's dilemma which necessitates the separation of the organic from the non-organic and, the philosophical futility of trying to do so.

There are many contemporary rival texts, but the practical clinical approach, the freshness of a text written by those at the peaks of their careers and the wealth of informative tabulated and illustrated material deserve to make this top of the list for young physicians and neurologists. I hope it runs to many editions.

JMS PEARCE

**Current Neurology Vol. 9.** Edited by S H APPEL. (Pp 287; Price: £56.50). Chicago: Year Book Medical Publishers. UK Distributor London, Wolfe Medical, 1989.

The almost exponential increase in the world neurological literature makes it essential for the practising neurologist to rely on surveys to keep in touch with the latest advances in the biological processes underlying neurological disease. There are now several such volumes but for a decade Current

Neurology, edited by Stanley Appel has kept up a high standard. In all the essays in this volume the scientific advances are set in a useful context of either interpreting physical signs, explaining clinical features or providing the basis for new treatment. The chapter on epilepsy reviews the classification of epileptic syndromes before giving a clinical review with particular attention to myoclonic seizures, but one has a slightly déjà vu feeling that perhaps the time for continuing reclassification of epilepsy may now be coming to an end.

In the chapter on cerebrovascular disease the factors which are likely to influence the morbidity are analysed with the question of whether heparin therapy has a protective effect against thrombotic occlusion which is based on the incidence of occlusion when therapy was abruptly discontinued. There is a discussion of some uncommon sources of cardiac embolism including the so-called "paradoxical" embolism with a patent foramen ovale and a discussion of the occurrence of mitral valve prolapse affecting up to fifty percent of otherwise normal women. Also examined is the place of nimodipine, a potent calcium antagonist which is now undergoing clinical trials, in the hope of reducing infarct size and also of trials of agents that block N Methyl-D-Aspartate antagonists which can potentially inhibit the entry of calcium in the cells and so reduce the likelihood or extent of infarction. Nimodipine is also under therapeutic trial in relation to the reduction of spasm in subarachnoid haemorrhage.

In the chapter on multiple sclerosis, attention is drawn to recent twin studies and also to the recent evidence that suppressor T-lymphocytes which decline just before or at the time of a clinical attack. This aspect of the complicated immunological defect points to some abnormality of the HLA immune response genes which has led to the suggestion of a "MS susceptibility gene" in the HLA-D region. The lack of any proof of benefits from immuno-suppressive therapy for MS or such new treatments as interferon and plasmapheresis is also fully discussed. The chapter on Alzheimer's disease gives a full discussion of the problems of linking the amyloid deposition in senile plaques with the similar changes which occur in Down's syndrome (trisomy 21). The gene defect causing familial Alzheimer's disease has also been located to the chromosome 21 but the formal analysis shows that the amyloid gene is a considerable distance away from the gene defect causing familial Alzheimer's disease. The antibodies raised against proponents of the neurofibrillary tangle including those to the microtubular associated protein tau and to ubiquitin have not yet resolved the cause of Alzheimer's disease.

Other chapters include excellent reviews of transmitters, paraneoplastic syndromes. Perhaps a few more illustrations would help the reader but taken overall this is a volume which all busy practising neurologists will wish to read to keep themselves up to date.

SIR ROGER BANNISTER

**Basic Surgical Techniques.** 3rd Edition. By R M Kirk. (Pp 287; Price: £9.95) Churchill Livingstone 1989.

The Third Edition of Basic Surgical Techniques by R M Kirk is something of a surgical

gem. The author makes the valid point that the acquisition of basic surgical techniques are a prerequisite for all surgeons, irrespective of their eventual speciality, and then through clear and straightforward writing highlights these basic techniques. From the first chapter "Handling Yourself" to the final one "Handling Infection", the book is full of good sound surgical philosophy not only for the fledgling surgeon but also for the established one.

Each chapter is laid out in a clear, concise fashion the author describing in great detail a variety of techniques required in any surgical practice. Fortunately the line diagrams are good and compliment the text well.

In the Preface the author states "the philosophy I wish to convey throughout this book makes it unsuitable for multi-authorship" and having read the book I heartily concur with this statement. I am sure that with multiple authors much of the personal touches incorporated in the writing would have been lost and this particular factor is a necessary part of the technique of surgery. I would strongly recommend this extremely readable book on Basic Surgical Techniques to any aspiring surgeon.

G NEIL-DWYER

**Issues in Psychobiology.** By CHARLES R LEGG. (Pp 224; Price: £12.95). Andover: Routledge, Chapman & Hall Ltd, 1989.

Psychobiology is a fashionable word these days, used to describe almost any study relating psychological to biological processes. The author describes it as covering "everything from the evolution of mating systems in the toad to the functions of subregions of the human cerebral cortex", but in this book it is actually even wider as the author also includes descriptions of the nervous system at the neuronal and microscopic level. Blithely admitting that any short account of such a wide field must be selective, Legg chooses to concentrate on what interests him most, namely the physiology and neurology of the brain.

The book is thus a mixture of what elsewhere is called physiological psychology or neuropsychology, with occasional forays into theoretical biology such as computational vision. There are chapters on the brain systems involved in behavioural regulation (motivation, emotion, plasticity) and others on the cerebral basis of cognition (perception, memory, consciousness). The discussion of these topics is both discursive and very selective. The account of visual processes, for example, includes descriptions of neuronal visual field processes, the multiple pathways of the different visual systems and computational models of vision. But it constitutes almost the entire chapter on perception, with the other senses barely mentioned, on the rather cavalier (and dubious) argument that "we haven't the sort of clear ideas about how they might work that we have about the visual system."

There is no mention of biochemical systems (in the discussion of memory for example), nor of motor systems and the cerebral basis of action, and little reference to speech and language. The chapter on motivation concentrates almost exclusively on hunger and thirst, although the author admits that it is by no means clear that the mechanisms he

describes are the paradigm for other kinds of motivation. Despite its use of psychobiology in the title, therefore, the selection of topics is mostly within the traditional sphere of physiological psychology.

The book is not, as claimed, an introductory textbook, as it is neither a comprehensive survey of psychobiology nor a book for beginners in the area. The discussion assumes a certain amount of knowledge about the brain, as for example in listing the brainstem relay nuclei of the various visual pathways, and some familiarity with psychological techniques such as Gazzaniga's visual field studies in split brain patients (both referred to without illustration or explanation). In dealing with his chosen topics, however, Legg is admirably clear and informative, managing to integrate a lot of material from different sources into his discussion and providing a good summary of some of the current issues in a lively and readable style. While not a book for the beginner, it would be well worth reading by final year students who want a current survey of the topics discussed, and by interested non-specialists in psychology and physiology who want to update their knowledge of the particular areas of cerebral function selected.

KA FLOWERS

**Sleep and Alertness: Chronobiological, Behavioral, and Medical Aspects of Napping.** Edited by DAVID F DINGES AND ROGER J BROUGHTON. (Pp 346; \$111.50.) New York: Raven Press 1989.

At first sight this volume promises to be the all-too-common product of a few super-specialists trying in vain to convince the world that their particular area of interest is disproportionately important and relevant, and inadequately studied and, presumably, funded. The Editors refer to napping, which is what the book is really concerned with, as "sleep's orphan". And they try to convince the reader that napping, and the phenomenon of afternoon sleepiness in particular, is of universal interest and importance, not only to the study of sleep, (and they point out how many studies of sleep have neglected napping altogether) but also to the health and functioning of animals and man in 20th century society.

In my view they succeed admirably. This is a book which should appeal to a wide audience including Neurologists, Psychiatrists and Physiologists. The style and pitch of the 12 main chapters varies considerably. There are highly technical discussions of chronobiology and sleep patterns in time-free environments but there are also detailed but uncomplicated descriptions of experiments to determine the most effective ways to maintain performance and vigilance in sleep-deprived soldiers. I particularly enjoyed descriptions of sleep patterns in mammals. Did you know that the giraffe may only sleep for a total of 2 in every 24 hours; made up of 3 to 8 episodes lasting 3 to 40 minutes each? Also of interest was the description of studies of the development of the human pattern of sleep from a polyphasic regime in the infant, through after lunch resting or sleep in the young child and the adult monophasic stay-awake-all-day pattern to the ultimate and very common occurrence of afternoon naps in the elderly.

And why not? Time and again, authors make the point that it may be healthier and more efficient to have a secondary sleep in the afternoon period of sleepiness that we mostly have. Most societies have come to disapprove of this and workers are disciplined if they are "caught napping" but studies of sleepiness show that even without a big lunch, performance deteriorates during the afternoon when apparently more accidents occur. Napping, which may be acceptable in siesta cultures, could perhaps lead to better and safer performance into the evening.

Fascinating too, are the studies of those for whom any period of sleep involves a risk of, at least failure, or worse, danger. Solo ocean yacht racing has been used as an experiment in which those who took short, brief naps were found to do better than those who either missed sleep altogether or who tried to manage with longer, less frequent sleep periods.

Other experiments describe psychological test performance in sleep-deprived military personnel and emphasise the recuperative value of brief naps. This, naturally, brings to mind the complaints of sleep-deprived junior Doctors, or indeed, senior Doctors with young children! While such studies should be made known to those planning duty rotas, it is well to point out that there is a phenomenon called "sleep inertia" which describes the period of reduced performance on first awakening from sleep which can last from 5 to 15 minutes—precisely the period during which a doctor summoned from sleep to an emergency is likely to be making decisions!

With a few exceptions therefore, this is a surprisingly good read, and while not directly relevant to clinical practice—though references are made to narcolepsy and sleep apnoea—there is much to interest and inform the reader; and the contributors make a convincing case for further studies of day time wakefulness and for sleep scientists to remember that a lot of sleeping goes on not in bed but in arm chairs, railway carriages and lecture theatres.

MICHAEL JOHNSON

**Atlas of Clinical Neuropathology.** By: S. S. SCHOCHET, JR. and J. NELSON. (Pp 390; Price: £62.75). Appleton & Lange, USA. UK Distributor: Hemel Hempstead: Prentice-Hall. 1989.

This slim but comprehensive volume consists of black and white photographs of gross specimens of brain and spinal cord illustrating upwards of 150 disorders of the central nervous system. Photomicrographs are included only when necessary for diagnosis. The illustrations are printed on the right hand page and the text on the left, a useful format for readers wishing to test their diagnostic ability.

The authors, a well known neuropathologist and a neurologist on the staff of the West Virginia University School of Medicine, were concerned by the recent decline, dramatic in some centres, in the number of necropsies performed in North America. They therefore decided to provide an atlas emphasising gross morbid anatomy for pathologists with meagre practical experience of neurological and neurosurgical necropsies.

The atlas presents CNS diseases not in isolation but in the form of short illustrated case reports comprising macroscopic specimens, histology, clinical details, path-

ology, a commentary and key references. The black and white photographs used throughout are perfectly adequate for fixed material, but specimens showing blood, haematomas and dense cerebral shadows can be confused on occasion with the black background routinely employed. The histological sections are pin sharp; they are intentionally underemphasised by omitting magnifications and only special stains are named. The range of cases demonstrated is as broad as could be desired, from malformations and perinatal disorders to neoplasms. The gross appearance of tumours are depicted less often than those of other disorders, but are nevertheless useful for the reader who wishes to list differential diagnoses at a gross level.

The authors have succeeded well in their aim, and have produced an atlas which will undoubtedly benefit their intended readership. The postmortem rate is falling on this side of the Atlantic, too, but judging by the continuing popularity of clinico-pathological conferences has not much affected the neurological sciences so far. The number of pathologists starved of postmortem work is probably small, but trainees could well find the atlas helpful when used in conjunction with a major textbook. More senior physicians in all the neurological sciences browsing through the volume will be attracted by the inclusion of a number of recondite conditions, rarely illustrated elsewhere.

DGF HARRIMAN

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## NOTICE

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**The Royal College of Surgeons of Edinburgh Specialty Fellowship Examination in Surgical Neurology.** A diet of the Specialty Fellowship Examination in Surgical Neurology will be held on 20 March 1989.

Candidates who hold a Diploma of Fellowship of a Surgical College or an equivalent Diploma are required to have three years post Fellowship experience in Surgical Neurology of which one year must have been completed in an approved centre in the United Kingdom. Candidates must submit written evidence of the experience in the specialty including their operative experience.

The application form, examinations calendar and Regulations are available on request from the Examinations Secretary, The Royal College of Surgeons of Edinburgh, Nicolson Street, Edinburgh EH8 9DW. Applications for entry must be received by 2 February 1990. Fee: £250.00.