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. SCHUCHET, 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

NOTICE

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.