Book reviews

rior fossa and lesions of the cranio-cervical function and the cervical spinal cord, MRI has shown itself to be extremely effective. In certain areas MRI has been less useful. In particular abnormalities of the bone or calcified lesions within the bone may not be well demonstrated by MRI and the detection of blood and of certain tumours, particularly meningiomas, requires careful selection of sequences if the lesions are not to be missed or misinterpreted.

The book is generously illustrated with a large number of clinical images many of which are of the brain or spinal cord. The only criticism of these is that some of the images are not of the highest quality and may not reflect the present state of the art.

The book therefore constitutes a useful introduction for a reader being introduced to MRI for the first time and would be a welcome addition to any clinical library. It will not, however, serve as a reference text nor does it aim to do so and a useful list of further key references is provided although rather more extensive referencing would be useful for the more inquisitive.

IAN EC ORMEROD

Mental Handicap: A Multi-disciplinary Approach. Edited by Michael Craft, Joan Bicknell and Sheila Hollins. (Pp 409; £30.00.) Eastbourne: Holt-Saunders Ltd, 1985.

"This book is the successor to Tredgold's textbook..." asserts Professor Bicknell in the opening sentence. "However", she continues, "...the replacement of the medical model by the multidisciplinary approach has caused us to produce an entirely new book." One can only agree that with three editors and forty contributors, this book bears little resemblance to the original Tredgold. Is it, though, an entirely new book?

Tredgold, writing in the early years of this century, was concerned mainly with description of the variety of "syndromes" which had mental handicap as their common feature. Later editions increasingly recognised differing degrees and types of disability, and the postulated aetiologies largely reflected the prejudices and concerns of the era. In that sense Tredgold defined the current state of the art, and that is no less true of this present volume. Gone is the rigid categorisation of mentally handicapped persons according to supposed aetiology; instead there is a comprehensive overview of the var-

ious elements (education, health and social services) which together make up a modern service. For maintaining a fairly consistent style throughout the book and avoiding glaring overlap between chapters, the editors are to be congratulated. The impressive quality of the proof-reading is another plus.

Broadly speaking, the major topics covered are service organisation, legal aspects, individual aspects (including aetiological considerations) educational issues and intervention strategies. Service organisation is presented, probably appropriately, in a fairly descriptive manner and the concept of normalisation in the delivery of human services is introduced as a general theme of the text. As a sophisticated discussion of public policy development, I particularly liked Malcolm Johnson's chapter; his comment "Mental handicap policy probably represents the most radical and coherent thrust for positive change to be found on the UK scene" illustrates the quality of his thought.

Of particular interest to the practising professional, the chapters on Intervention take the Community Mental Handicap Team as the central element of service provision, and draw together the variety of contributions of the different members. Overall, I think the authors succeed in this notably difficult task. In Chapter 24, Hollins hints at the difficulties of achieving successful teamwork, but unfortunately has little space to elaborate on team building skills. Perhaps that topic is worth a textbook all of its own!

Further positive aspects of this volume include the attempts by all the authors to support their conclusions with detailed references to the literature, and the descriptions of North American practices in community care and special education. Unfortunately, like any textbook, this too has its weakness. Most notable is the (presumably deliberate) avoidance of serious controversy. Perhaps that is the price to be paid for having an overall coherent thrust. Even so, some discussion would surely be warranted of the inevitable conflict and compromise implicit in public policy formulation: an example would be the dialectic between vaccine damage compensation for the few and the need to attain agreed minimal standards for the many. Smaller criticisms include lack of discussion of the economic costs of change and the comparative lack of pointers towards future research.

Overall then, this is a textbook of interest to a number of professional groups and those responsible for service planning and the allocation of funds. It is not a "hands on" book in the sense of telling a newly appointed professional how to begin. Per-

haps a good beginning would be to read this book!

The broad scope of this book is, I feel, at once both its strength and its weakness. On account of its general interest, this book will find a place in the libraries of Community Mental Handicap Teams and specialised professional workers. What though of the needs of psychiatrists specialising in, or having a special interest in, the psychiatry of mental handicap? This was after all the target audience of Tredgold's original textbook. For them, apart from a valuable overview of the current scene, this book has comparatively little to offer. Of most direct relevance is Chapter 28 by Andrew Reid, but this essentially just summarises his own paperback on the subject. Nowhere is to be found the detailed approach to history-taking and mental state examination appropriate to the mentally handicapped person and their family. One is left no wiser about, for example, the recognition of a mood disorder in an autistic person or the specific clinical signs of a dementing illness in a person with Down's Syndrome. Of course, Reid alludes to those in general terms, but not in anything like the detail required by the doctor in clinical practice. As far as I can see, such a book has yet to be written. If, when it is, it will become the true successor to Tredgold, in theme, if not in lineage.

LB CAMPBELL

Photoperiodism, melatonin and the pineal. (CIBA Foundation Symposium 117.) (Pp 323; £27.95.) London: Pitman Publishing Ltd, USA: Medical Educational Division, CIBA Pharmaceutical, 1985.

At first sight the pineal does not look very exciting, but being in the middle of the head it has long been considered to have some central function. The isolation of the pineal hormone melatonin by Aaron Lerner in 1958, and the anatomical studies which have identified a retinal-suprachiasmatic nucleus-pineal pathway have been major achievements of modern neurobiology. The pineal of lower vertebrates has been revealed as an endocrine organ, a biological clock, and the classical "third eye", whilst that of higher mammals has been shown to function as a sensory organ that detects photoperiod. A modern caesium atomic clock has an error of less than 0.00001 s/day, but cannot adjust to the outside world; in contrast, the mam-

malian clock is not nearly so accurate, but can continuously correct internal and external time. The conventional view expressed in this stimulating book is that the pineal conveys its message exclusively via melatonin, although recently it has been shown that in some species pinealocytes send nerve axon-like processes to neighbouring parts of the brain, and in future it may be necessary to consider neuronal as well as hormonal control of the biological clock by the pineal.

A great deal is known about the physiological role of the pineal and melatonin in animals, much less in man. The book starts with a brilliant review by RV Short of *Time, the Universe—and the Emperor penguin*. This bird has an incredible life history, in one of the most extreme environments in the world, and its survival is due to the correct timing of a host of physiological responses. The pineal is of particular importance in the onset of puberty and control of oestrus in seasonally breeding animals, and melatonin is now of commercial importance on both sheep and deer farms.

This symposium is mainly about how the light message, via the retina and pineal, influences the testis and the ovary. Many strange species, including Japanese quail, Iguanid lizards, Syrian, Turkish and Djungarian hamsters, as well as house sparrows, are described, and mechanisms considered whereby the photoperiod modulates the ability of oestradiol to suppress pituitary secretion of luteinizing hormone.

The pineal in man, not a seasonal breeder, is a much more difficult topic and, as stressed by Arendt, there is no good evidence for a major physiological role of the human gland. This notwithstanding, recent demonstrations of major changes in melatonin rhythms with human puberty, investigation of melatonin as a possible hypnotic, studies of the effect of bright light pulses in depressed patients, and the use of melatonin by pilots to influence jet-lag, are topics of current interest. At present, no clear conclusions about these subjects are possible, but it is useful to have the critical evaluation in this volume.

The book is well produced, with good illustrations, an accurate index, and careful editing by David Everest and Sarah Clark. It is a credit to Vincent Marks and Josephine Arendt, who proposed the symposium, and who played a major part in the development of melatonin assays. The volume is mainly of specialist interest, but investigation of disorders of human timekeeping is dependent on many of the ideas discussed here. Highly recommended.

JD PARKES

Proceedings of the Fourth World Congress on Pain, Seattle. (*Advances in Pain Research & Therapy Vol 9.*) Edited by Howard L Fields, Ronald Dubner and Fernando Cervero. (Pp 951; \$153.00.) New York: Raven Press, 1985.

The study of pain is a particularly multidisciplinary area of medicine and keeping up-to-date is therefore especially difficult. It is a hopeless task attempting to be familiar with advances in fields as disparate as neurophysiology, neurochemistry, neurology, surgery, anaesthesia, and psychiatry, and one is therefore thankful to the International Association for the Study of Pain under whose auspices have appeared the journal *Pain* with its periodic references to the current literature, and books such as the present *Advances in Pain Research and Therapy*.

This book comprises selected papers from the Proceedings of the Fourth World Congress on Pain held in Seattle in 1984, and as with previous volumes in this series, it is immaculately and expensively produced by Raven Press. The book is of course only as good as the papers delivered at the symposium, and there are some very good papers indeed. The individual styles of the contributors I think enhance rather than detract from the overall presentation, and certainly make more interesting reading. Since there is little attempt at cohesion and so many topics are covered, whether the reader will find what he is looking for may be unpredictable, and I suspect the book will be mainly used for browsing or specific reference purposes, especially in view of its high price.

Readers of this book, however, will be rewarded by some outstanding contributions. A personal selection would include Perl's masterly introductory overview "Unraveling the story of pain", Basbaum's update on cytochemistry of the dorsal horn, Willis' contribution on thalamocortical mechanisms, and a thoughtful and very up-to-date chapter on evoked cerebral potentials and pain by Bromm. The chapter on mechanisms of neuropathic pain by Ochoa and colleagues has the great bonus of a particularly lucid as well as entertaining style ("Anyone who claims to understand how the sympathetic system influences pain is probably mistaken or has chosen to explain only some aspects of a complex issue"), and neurologists will be as intrigued as surgeons that over the past five years Rosomoff's unit has managed over 1000 patients with demonstrated intraspinal compressive lesions like herniated disks or bony stenosis without

surgical removal; despite leaving the space-occupying lesion in situ, management of the peripheral musculoskeletal problems has resulted in restoration of function even at long-term follow-up of up to seven years, and good relief of pain.

This book undoubtedly records the state of the art in 1984, and fully justifies its title. Contributors, editors and publisher are to be congratulated.

GD SCHOTT

McAlpine's Multiple Sclerosis. Edited by WB Matthews, ED Acheson, JR Batchelor, RO Weller. (Pp 358; £32.00.) Edinburgh: Churchill Livingstone, 1985.

Although there is very little of McAlpine remaining in this, the fourth edition of *Multiple Sclerosis*, the editors do explain that they continue to use his name in the title in order to honour his enthusiasm for the creation of the original *Multiple Sclerosis* published in 1959 together with Compston and Lumsden.

This book has become the definitive work on multiple sclerosis. The editors have arranged the script into three sections. The first, by Donald Aitchison is concerned with the epidemiology of the disease. Brian Matthews discusses the clinical aspects of multiple sclerosis and finally the immunological and pathological aspects are shared by Batchelor and Roy Weller.

The epidemiology of multiple sclerosis has fascinated neurologists for many years and Aitchison takes us through the development of our understanding of its epidemiology and also outlines the known epidemiological facts which point so clearly to pathogenesis.

Brian Matthews' writings on the clinical aspects of the disease are masterly and here any student of the disorder will find answers to many of the questions he may have posed in his clinical practice. The common and unusual presentations of the disorder are clearly described and although Matthews modestly states that "the differential diagnosis of multiple sclerosis obviously covers a large field in clinical neurology and cannot be covered completely in a brief chapter", he has almost achieved just that.

A chapter follows on the laboratory diagnosis of the disease with a clearly written review of the value of evoked potential studies and a critical but very fair discussion of the recent controversy over the possibility of