Progress in Clinical Neurophysiology, Vol 9 Motor Unit Types, Recruitment and Plasticity in Health and Disease. Edited by JE Desmedt. (Pp 416; \$88.75.) Basel: S Karger, 1981.

This book is the latest in an expensive series of volumes covering topics in clinical electrophysiology. In this volume there are five chapters dealing with motor unit anatomy and mechanical properties, recruitment, firing patterns and plasticity in health and disease. Each chapter contains a number of articles written by different authors.

The main failing of books of this sort is that they fall into a no-mans-land between being a useful collection of organised and collated articles written by experts dealing formally with various aspects of a given topic and a collection of separate papers that might have been delivered at a scientific symposium dealing with the same topics. Such books easily become receptacles for articles containing new data that have not been subject to the usual process of critical review. This is a growing but regrettable trend in scientific publishing epitomised by a number of currently available popular attractively produced moderately priced monthly pseudo magazine-journals. This book contains a number of articles unlikely to be accepted for publication elsewhere.

The first chapter starts with an excellent review by E Kugelberg on the anatomy and physiology of motor units. This is a good read for clinical electromyographers. The next chapter deals with spinal mechanisms underlying motor unit recruitment. Appropriately it begins with an intentionally personal account by E Henneman of the ideas that led to the formulation of his size principle. According to this scheme Henneman seeks to explain motor unit recruitment in terms of differences in anatomical size of motoneurons. Experimental evidence is set out to support this view. This is followed by a critical appraisal of these ideas by RE Burke who discusses motor unit recruitment not only in terms of the factors intrinsic to motoneurons themselves but also in terms of a number of features related to the organisation of central synaptic input to the cells and Occam's razor. In a long article JE Desmedt reproduces his last four years of published work on motor unit recruitment. This is a great convenience.

VR Edgerton and S Cremer summarise what they could find out about changes in muscle fibre properties and training and

include some useful pointers for the selection of racehorses. In another long article JE Desmedt describes some new observations in clinical emg using spike triggered display. This is an excellent and comprehensive article opening up new ground. It should be read by all interested in clinical electromyography.

In summary this book contains a useful collection of articles, some old, some new, some critical, some simply a review. It will undoubtedly find its way onto the desk of most students of motor unit physiology if only because it contains such a convenient source of articles and references expressing the views held by major investigators in this field.

JA STEPHENS

Spinal and Supraspinal Mechanisms of Voluntary Motor Control and Locomotion. Edited by JE Desmedt. (Pp 373; SFr 138, \$82.75, DM 165.) Basel: S Karger, 1980.

This book is the latest in the series "Progress in Clinical Neurophysiology", and is a companion volume to the earlier "Cerebral Motor Control in Man". It consists of a collection of twenty-one review articles discussing new methodology (for example, spike-triggered averaging) and new non-invasive techniques for human study of spinal reflex circuitry. H-reflex testing of reciprocal and recurrent inhibition, effects of muscle vibration on motor control, and the programming of muscle activity in posture and locomotion are all included. However, there seems to have been considerable delay between publication and sending the book for review, with the result that most of the articles now appear to have been written originally some four or more years ago. Since most of the authors have used their articles to summarise and expand their previous work, one is, in fact, in many cases, reading about work published in 1976 and 1977.

Despite this unaccountable time lapse, it is a measure of how good the individual contributions are, that this book is still an enormously useful source of reference for anyone working in the field, and an excellent summary of some of the current areas of research for those outside it. As usual, Professor Desmedt has persuaded most of the best-known workers in each field to contribute, and although much of the data has been published elsewhere, the scope of critical discussion allowed in book format (at the expense of experimental detail, which is available in the original publica-

tions) has been used well by all the writers. Because of this, reviews are probably the best guide to each author's view of the subject that is easily available and as evidence of this, these articles are, and will be, quoted many times in future publications. It is a shame, therefore, that the publishers should so over-price the book as to make it inaccessible to most individual buyers. Indeed, the cost of all nine volumes in the series puts them out of reach of many libraries, who may argue, and rightly so, that first priority should go to new work rather than to collections of even the best review articles.

J ROTHWELL

Movement Disorders (Neurology 2 of Butterworths International Medical Reviews). Edited by C David Marsden and Stanley Fahn. (Pp 379; £15.00) London: Butterworth Scientific, 1982.

The student of Parkinson's disease and related movement disorders has the choice of a baffling number of recent texts to consult. "Advances in", "Current Concepts in" and "Research Progress in" are but three sitting on my shelves at this moment. They are all good in their way, but those relaying the proceedings of meetings are seriously hampered by the often hasty way in which material is collected and presented; it is inevitable that literary style and any attempt at lasting scholarship are often sacrificed.

By contrast, Marsden and Fahn, two internationally respected authorities, have succeeded in presenting a text which seems to have been prepared with care and forethought. The book is a collection of essays on topics selected for their practical importance or because sufficient new work has justified a definitive discussion. Such is their aim. To achieve it, they have chosen expert contributors from the USA, the UK and from Finland and Japan.

The first half is devoted to Parkinsonism. It includes chapters on aetiology, pathology, neurotransmitters and more clinical sections on depression and dementia, fluctuations in disability and treatment with dopamine agonists. Variations, notably multiple system atrophy are ably discussed. The second half deals in the main with tardive and other dyskinesias, myoclonus and the many types of dystonia.

Each half of the book is preceded by an editorial introduction to the subjects to be discussed. These remarks are of interest, for they allow the contributors to provide

individual opinions, with which the editors do not always concur: the well known divergence of opinion on the value of the various surgical techniques to treat tremor, spasmodic torticollis and dystonia illustrate the enthusiasm of the neurosurgeon and the modulated scepticism of the editors.

I found this a most valuable text, controversial, up to date, and in most sections balanced and authoritative. The rather obsessively long classifications (for instance one and a half text pages on myoclonus; 18 alleged patterns of drug related fluctuations and dyskinesia) tell us that their present basis is insecure and suggest that in time they will disappear as new information brings with it simplicity. Remember the anatomical nightmares of basal ganglia pathways we had to learn in the days of stereotactic thalamotomy? If the chapters on dopamine receptors and tardive dyskinesia were too brief or too specialised to be of general help to neurologists, this is a minor criticism.

I would venture the view that this is the outstanding work on Parkinsonism and movement disorders written to-date. The editors point out that it is not totally comprehensive, but as a statement of the position in the Parkinson game, some 15 years after Cotzias's paper it is a first class compilation which I would warmly commend to all neurological departments.

JMS PEARCE

The Human Brain and Its Universe. Volume 1—The World of Natural Sciences and Its Phenomenology. By H Kuhlenbeck. Edited by J Gerlach. (Pp 281; SFr 165, DM 198, \$99.00.) Basel: S Karger AG, 1982.

The Human Brain and Its Universe by the anatomist Kuhlenbeck is a book on philosophy and not on anatomy. Kuhlenbeck possesses a vast amount of learning and a deep understanding of mathematics, physics and philosophy. The main subject matter is consciousness and the data that our consciousness gives us. Of those who have thought about these questions—and all philosophers and many neurologists and psychologists have done so—Schopenhauer is one who is commonly neglected in English-speaking countries. Kuhlenbeck here speaks up for this philosopher. He clarifies his concept by showing that Schopenhauer's use of the word "will" was a mistake. Schopenhauer used "will" to mean Kant's Ding an sich, for matter regardless of any human being

apprehending it and of any human way of apprehending it.

It is unfortunate that no English-speaking editor has helped Kuhlenbeck with his English, which is a mixture of a word-for-word translation of German and the long-winded Teutonic writing that the Americans have acquired from earlier German science and later refugees from Germany. But it is relieved every now and then by acid remarks about the author's well-known contemporaries.

PETER W NATHAN

The Human Brain and Its Universe Volume 2—The Brain and Its Mind. By H Kuhlenbeck. Edited by J Gerlach. (Pp 374; SFr 165, DM 198, \$99.00.) Basel: S Karger AG, 1982.

The two volumes, The World of Natural Sciences and Its Phenomenology and The Brain and Its Mind, overlap to such an extent that both should not have been published. Whole sentences and identical lengthy quotations appear in both of them. This book needed strict editing but clearly it got none.

The main subject of the book, as of the previous volume, is one that neurologists usually disregard: "How can material, ie physical spacetime events" produce mentation, or, "how do physical events become transmuted into consciousness, or how does matter give rise to mind?" An example is quoted by Kuhlenbeck: Ziehen wrote: "There is no pathway from the visual cortical cells that leads to the sensation of red." But Kuhlenbeck's style of writing is such that it is difficult to get his message.

Like Vol. 1, the book is mostly on philosophy; in addition, there are thoughts and facts from everywhere and anywhere, relevant and irrelevant. One cannot conceive for whom the book was written. The parts of the book on neurology are at very different levels. The reader is informed what a synapse is and told about dendrites and neurons. At the same time, he is supposed to know what "the brain stem's tegmentum" is, whereabouts the central tegmental tract is, to understand gating mechanisms, and to know what neuropeptides are. He is told that "medullated neurites ('white fibers') are coated by a laminated lipid wrapping representing the myelin sheath produced by oligodendroglia respectively by Schwann cells"; and at the same time he is presumed to understand "Cerebral grisea are not only influenced by

hormones but also to some extent produce hormones".

Kuhlenbeck makes no special contributions to the elucidation of this problem that comes from neurology and that could only have been contributed by a distinguished neuroanatomist. And so the reader loses heart as he ploughs through 346 pages of assertions on every subject in the world, occultism, spiritualism, Swedenborg, Buddhism, Berger's views on the encephalogram and philosophy, cerebral localisation, and Marx and Engels.

PETER W NATHAN

Notice

The 11th Annual Meeting of the International Neuropsychological Society will be held 2-5 February, 1983 in Mexico City, Mexico. For information write to: Dr Manfred Meier, Arrangements Coordinator, Box 390 Mayo, University of Minnesota Medical School, Minneapolis, MN 55455, USA.

Corrections

The authors of the paper "Physiological basis for enduring vestibular symptoms" (*Journal of Neurology, Neurosurgery and Psychiatry* 1972;45:126-130) were P Rudge and BR Chambers.

Matters Arising

The letter from Dr Edvard Ernst (*Journal of Neurology, Neurosurgery and Psychiatry* 1982;45:185) should have been entitled "Rheological and fibrinolytic findings in multiple sclerosis".