

neurological disorders in which negative motor phenomena play a devastating role are cataplexy, certain types of epilepsy, and a form of myoclonus. Asterix is the most familiar form of negative myoclonus. Negative motor phenomena are also part of normal motor behaviour, occurring for example, in REM sleep.

The text is very nicely organized and layed out in sections; Section I - Clinical Syndromes, Section II - Cortical Mechanisms, Section III - Brain Stem Mechanisms, Section IV - Spinal Cord Mechanisms, Section V - Pharmacology, Section VI - Summary that is very well written by Dr. James W. Lance.

Although some of the material is by nature a review article of earlier published work, other papers are refreshingly unique. The very unassuming title "Drop Attacks" chapter by Lee and Marsden is in fact a delightful review of "101 Causes of Drop Attacks" starting with attacks associated with weak legs ending with Binswanger's Disease. The chapter "Clinical Aspects and Features of Cataplexy" by Guillemineault and Gelb gives a very thorough discussion of this dramatic and curious entity from clinical descriptions to basic science to what's currently known about the genetics of this disorder.

Within the ten years since it was introduced the magnetic coil stimulator has proven to be a useful tool to study inhibitory effects on the brain. Transcranial magnetic stimulation (TMS) of occipital cortex can inhibit visual perception, TMS of the sensory motor cortex, after a continuous stimuli to the hand can inhibit somatosensory perception and with trains of repetitive TMS, speech output and memory of various types can be impaired.

As an overview this was a well written book by experts in the field and extensively referenced. Each of the chapters was revised after the workshop in light of discussions and comments that took place and can be considered definitive reviews at this juncture. There may be some who would feel that the subject matter is narrow and perhaps not too much interest to general neurologists but that would be an error. Regardless of one's area of interest one will still nevertheless encounter patients with atonic seizures, elderly "folks who fall" and patients with Parkinson's Disease who "freeze". Although apparently widely dissimilar disorders there is in fact a common theme that ties them all together in terms of negative motor phenomena. This is a text that neurology residents would want to refer to in preparation for rounds, practicing neurologists would refer to for current reviews and neurophysiologists and neurochemists would want to refer to for timely reviews that are well referenced. If this text is not on your own personal library shelf then it should certainly be in the department's library.

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**PAIN AND THE BRAIN: FROM NOCICEPTION TO COGNITION. ADVANCES IN PAID RESEARCH AND THERAPY, VOLUME 22.** 1995. Edited by B. Bromm and J.E. Desmedt. Published by Lippincott-Raven, Philadelphia, PA. 606 pages. \$C129.00.

The timeliness of this volume which focuses on the experiential aspects of pain was emphasized by the simultaneous arrival of a supplement to the official journal of the American Academy of Neurology, 'Neurology' on chronic pain mechanisms and management, published as a CME activity to highlight dissatisfaction by patients and physicians with the results of chronic pain treatment.

The present volume is the latest in a series on pain research and therapy which has been published regularly for over 15 years. It is the product of a satellite symposium of the 7th World Congress of Pain, and was held in Beaune in August 1993. Highlighted by an introductory chapter by William Willis Jr., this volume of monographs is divided into six sections containing thirty-six chapters by seventy five-contributing authors. The first seven chapters in Section I, Nociception, Pain, and Consciousness, set the stage for the remaining sections by reviewing relationships between nociception and relevant attributes of the state of consciousness.

For the first time in recent series, a considerable amount of new information on pain processing at the thalamic and cortical levels is presented. These chapters are complemented and extended by a broad consideration of the neuropsychologic aspects of pain including the affective, cognitive, and emotional components. Emerging from this body of data is the inescapable conclusion that we have now reached the point where future pain research must now target humans with chronic pain disorders.

It is of interest to the clinician involved in managing patients with chronic pain, that this volume and the Neurology CME supplement, conclude that successful therapy of pain emerges from targetting both nociception and the emotional, affective, and cognitive aspects of consciousness. The seminal and central role of antidepressants in chronic pain management highlighted in the Neurology supplement, is dealt with in depth in a chapter on efficacy and mechanisms based on a review of clinical trials.

The field of nociceptive research has seen revolutionary changes over the past two years, while the field encompassing experiential aspects of pain remains in its infancy. As such, some parts of the present volume, particularly the section on abnormal pain states are slightly dated. Overall however, this is a timely volume that the editors hope will stimulate increasing interest in pain research thanks to novel quantitative approaches some of which are reviewed here.

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**EXPERIMENTAL HEADACHE MODELS. FRONTIERS IN HEADACHE RESEARCH, VOLUME 5.** 1995. Edited by Jes Olesen and Michael A. Moskowitz. Published by Lippincott-Raven. 380 pages. \$C116.00.

The aim of this book, along with the other volumes in the "Frontiers in Headache Research" series is to demonstrate the major advances made in our understanding of the headache disorders. This volume reports on the presentations and discussions of the November 18-20, 1994 5th International Headache Research Seminar convened in Copenhagen. This book illustrates the dramatic progress which is occurring in headache research, progress which has already yielded significant therapeutic dividends at least for that 16% of the adult population which suffers from migraine. The list of contributors also illustrates the important role of the pharmaceutical industry in driving this progress, with over 20% of the contributors having direct links to industry by position of address.

In addition to the opening and closing chapters, the book has six sections. Section I focuses on the general use of models in drug

development, and Section 2 examines the use of animal experiments to study the neurobiological basis for pain with special attention to the trigeminovascular system. Section 3 deals with *in vitro* models of migraine, and discusses the molecular pharmacology of the 5HT<sub>1D</sub> receptor system and mechanisms related to neuropeptides and amines. Section 4 describes *in vivo* animal models of migraines, and discusses models based on neurogenic and vascular mechanisms, with articles dealing with cranial arteriovenous shunting, neurogenic inflammation, cortical spreading depression and other mechanisms. Section 5 deals with human models of vascular headache, such as nitroglycerin-induced headache, as well as others. Section 6 deals with models of non-migrainous headache, including tension-type and cluster headache. Some of these models are largely theoretical.

This book includes contributions by many well-known researchers in the field of headache, and is an up-to-date summary of the field. Despite the editing, the various contributions differ significantly in quality and importance. Although many neurologists would be interested in the cerebrovascular pain pathways of relevance to migraine, fewer might be interested in a new methodology to study muscle fatigue in normal and headache patients, or in the effects of peppermint and eucalyptus oral preparations on neurophysiological and experimental algometric headache parameters. Many of the contributions to this volume would also benefit from a short succinct summary.

In summary, this volume will be of interest to the headache specialist, and perhaps the neurologist with a major interest in headache. Most of it will be too specialized to be of interest to the average neurologist. However, it is a valuable reference, and selected articles will be of interest to all those wrestling with the major new developments in serotonin receptor research and the pharmacology of migraine treatment.

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**FEVER AND ANTIPYRESIS.** 1995. By K.E. Cooper. Published by Cambridge University Press. 182 pages. \$C65.00.

This small but thoughtful book is well organized. There is an introductory chapter on definitions and general considerations followed by an outline on thermoregulation and then an outline on the nature of pyrogens. This is succeeded by a description of the loci of action of the endogenous pyrogens and their further mediators and mechanisms extending to the actions of the cytokines and prostaglandins in the hypothalamus. The role of the nervous system outside the hypothalamus is covered next, followed by a review of antipyretics and their actions: there is then a commentary on febrile convulsions in the paediatric age range. The book concludes with an overview and speculation as to the future.

As a challenge to comfortable orthodoxy Professor Cooper quotes James Currie who wrote in 1798: "To the weak and ignorant, presumption is as natural as doubt is intolerable, and with such belief is almost always a creature of the imagination".

My own textbook of paediatrics explains fever as being "except under unusual circumstances, not beneficial to the host response to infection". I therefore felt challenged when I discovered that fever in mammals assists survival in the face of infection: *Pasteurella multocida* infected rabbits more often died if their ability to develop fever was inhibited by antipyretics. The ubiquitous nature of fever is surprising – from the Madagascar cockroach through tadpoles to the so called higher orders.

In a brief chapter on febrile convulsions a suggestion is made that arginine vasopressin, which can excite seizures in rats if injected intraventricularly and is preferentially released by febrile rats, may serve as a model for children. Professor Cooper is however careful to point out that there is no evidence to date that AVP is involved in febrile seizures in children.

This careful work encompasses over 30 years of work dedicated to the topic. It is a judicious account of a facet of medicine and neurology that interfaces with us all on both a personal and professional level.

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**DISABLED CHILDREN & DEVELOPING COUNTRIES.** 1995. Edited by Pam Zinkin and Helen McConachie. Published by Cambridge University Press. 238 pages. \$C78.00.

I have had an opportunity to visit several developing countries over the years as an Examiner and Lecturer. I am impressed by the ingenuity and creativity of those responsible for providing services to handicapped children. These individuals make do with limited resources and increasingly tend to conceive of programs based on cultural and environmental needs rather than relying on projects or expertise imported from the Western world.

Disabled Children & Developing Countries is a multi-authored book which serves to highlight programs for the developmentally disabled in many undeveloped countries. The book consists of 15 chapters ranging from an overview of child disability services and intervention programs in the United States and Great Britain to the development of highly successful programs for the habilitation of handicapped children in India and Bangladesh. Although the book would have little practical value in addressing the medical and preventative health care needs of children in developing countries, it will be a useful resource of those committed to establishing prevention and educational programs on behalf of the disabled child whether in a developed or developing country.

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**SUPPLEMENTARY SENSORIMOTOR AREA. ADVANCES IN NEUROLOGY, VOLUME 70.** 1995. Edited by Hans O. Luders. Published by Lippincott-Raven Publishers. 536 pages. \$C163.00.

"The student looking over the political map of a continent may little realize the complexity of the populations and states so simply represented" (Sherrington, 1906). Sherrington's analogy in his discussion of the map of the motor cortex in his classical text on the nervous system remains quite appropriate as demonstrated by the various viewpoints expressed about the supplementary motor area (SMA) in this text. This area of posterior mesial frontal cortex is implicated in the preparation, initiation and sequencing of movement. However, the same can be said of any part of the cortex, basal ganglia, brainstem or cerebellum associated with motor control. That the SMA is a distinct and clinically interesting part of the brain is clear from the evidence presented but what is not well delineated is its functional significance and even its anatomical distribution in relation to other parts of the motor system. The first half of the book