

AN INTRODUCTION TO CLINICAL NEUROLOGY. 1993. By Alan Guberman. Published by Little, Brown and Company. 610 pages. \$C58.00

When this book was sent for review my first response was "not another one." From the books that are currently available there is no ideal book that one could recommend readily to the students and residents. There is also competition from a number of well established texts in clinical neurology. The library bookshelves and bookstores are increasingly under the strain of multiauthored books. The arrival of another book may seem to be unwarranted. However after the review such an impression was premature.

The principal and 3 contributing authors have compiled in *An Introduction to Clinical Neurology* a comprehensive and extremely well planned general neurology book. In the "*Decade of the Brain*" with such an explosion of information in basic and applied neurosciences the book gives a balanced account of both the traditional clinical approach and the new knowledge largely current to the date of publication.

The preface directs the reader to the justification, mission and content of the book. Although the 450 pages are divided into 29 chapters the style is uniform and emphasis is even. The text should be understandable to the experienced and novice alike. The major emphasis is in adult neurology but there is coverage of some useful aspects of pediatric topics of interest. The first 3 chapters are general, focusing on diagnosis and decision-making, history and neurological examination, laboratory and neurodiagnostic procedures. The style sets the scene for discussion in sufficient depth of the clinical expression, pathophysiology, diagnosis and treatment of each disease or syndrome in the remaining chapters. The book is enriched and enhanced by the 3 contributing authors in discussing inherited metabolic and developmental disorders, molecular genetics and neuroimmunology. Unlike most general textbooks there is also a chapter on neuroophthalmology. Key tables are summarized and highlighted in more than 200 charts, tables and illustrations. Surprisingly the ample number of radiographs, CTs and MRIs are relatively well reproduced.

The weaknesses are few and are of minor importance. For instance it is not accurate that "an absent reflex is always pathological". There may be an absent jaw jerk at any age and no ankle reflex in the elderly and neither should be regarded as being abnormal. An absent abdominal reflex due to an upper motor neuron lesion should also be included in the causes that are mentioned in the book.

The readers will be disappointed that diabetic peripheral neuropathy, the most common neuropathy in the western world is barely mentioned or a reference provided.

This book is obviously the product of thoughtful hard work. All in all, despite the minor criticisms, I am glad to have this text to complement the others that are either encyclopedic or assume that the reader is skilled in bedside neurology which is sadly neglected and pervasive in the 1990s. Producing a textbook in a rapidly changing field is a daunting task. What sets this book apart is the extraordinary range of information presented and at the same time keep us well versed in the fundamentals of bedside clinical neurology. It is a good book not only for neurology residents but students of neurology at all levels.

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BRAIN INJURY AND NEUROPSYCHOLOGICAL REHABILITATION: INTERNATIONAL PERSPECTIVES. 1994. 1st Edition. Edited by Anne-Lise Christensen and Barbara P. Uzzell. Published by Lawrence Erlbaum Associates, Inc. 341 pages. \$C47.00

This book addresses the knowledge gained in a five year span between two conferences held in Copenhagen, Denmark. The most recent conference was entitled "Progress in Neuropsychological Rehabilitation". The chapters are written by many different individual authors. The editors, Anne-Lise Christensen and Barbara P. Uzzell, work in rehabilitation centres based in Denmark and the United States respectively.

The initial chapter focuses on changes in the approach to rehabilitation of the brain injured individual. The increased use of treatment in groups as well as increased family involvement is noted. There is also a review of cognitive remediation. There then follows a review of the physiology and related pharmacology that occurs following brain injury. This is a very comprehensive review and includes treatment relevance at both a cellular and subsequently a clinical level.

The book continues with a number of chapters that have a narrower area of focus. Examples include aspects of brain imaging techniques, behavioral monitoring, cognitive training methods, use of computers in aphasia rehabilitation, and psychosocial functioning.

A significant portion of the book addresses outcome and its measurement as well as the economics involved with brain injury. There are separate chapters pertaining to Denmark and the United States. However, even in the preceding clinical chapters there is an ongoing awareness of outcomes to assess treatment effectiveness and cost efficiency.

Portions of the book would be of interest to anyone who is involved to a significant degree in the rehabilitation of individuals who have sustained brain injuries. Other portions are fairly narrow in scope and will appeal more to specific disciplines. Overall it is quite well written and reasonably priced.

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SPATIAL VISION IN HUMANS AND ROBOTS. 1993. 1st Edition. Edited by Laurence Harris and Michael Jenkin. Published by Cambridge University Press. 443 pages. \$C78.00

When I first cracked this book, it fell open to a page half-filled with equations. My immediate thought was that this was one of those works which should not be read by neurologists while operating heavy machinery. Unfortunately, although the work does have some truly interesting sections, that opinion still holds in general.

The book is the child of a conference held at York University in 1991. It shares the problems of all such compilations, being a little dated already and choppy uneven in style, quality and comprehensibility. The focus of the conference was broad, encompassing such diverse topics as cycloverision, attention, texture, colour, and a slew of computer vision models. Some readers will consider this eclectic mix unfocused but others may find the "bits and bytes" approach refreshing. The variety of papers is even broader than that found in most collections, since the conference aimed to mingle workers in human and computer vision, with hopes of cross-fertilization. For myself, this meant that the book was divided into those papers which I understood and those which I did not. Many computational works were difficult to grasp, so much so that the exceptions like Jepson and Richards' "What makes a good feature?" stand out. On the other hand, it was comforting to run across familiar psychophysical and physiologic ground like Wilson's section on non-linear processes, Regan's work on motion and texture-defined form, and Allman and Zucker's discussion on cytochrome oxidase blobs. However, much of this work can be found elsewhere: I gained

mainly the value of repetition by reading it again here, plus the convenience of having it in one binding.

The style of the contributions varies almost as widely as the content, ranging from mathematical excursions to the informal chat of Julesz in the last chapter, which provides an excellent overview of his work as well as an indication of some still unsolved problems, a scientific version of a living will, as it were. There is also the neurophilosophical musing of Stanley Klein in "Will robots see?", perhaps the most interesting chapter of all. Quantum mechanics, the mind-body question, the Turing test, the homunculus, humanoids and zimbos all make an appearance in this exploration of whether the visual experience of robots will ever be the same as that of humans.

The book suffers from some sloppy technical editing, which proved annoying even if it may be nitpicking. For example, the otherwise good introduction by Harris and Jenkin is marred by reference to a diagram in Regan's chapter which must have been omitted from the final draft, and figure 2 of Wilson's chapter strained by eyes in Escher-like fashion until I realized that it had been printed upside-down.

In the end, the book will appeal most to those combining a keen research interest in vision and a rock-solid mathematical background, not a numerous group in the neurologic community, I imagine. Its true home lies near its origins, namely the psychology departments of the world, where I am sure it will be a useful reference of essays. Those interested in the clinical side of vision will find little to help here, and the casual reader is forewarned: this work will not serve as an introduction to its field. I left the book somewhat frustrated, determined to upgrade my mathematics, but comforted by the fact that at least now I knew the difference between humanoids, zombies and zimbos.

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FOUNDATIONS OF MODERN NEUROLOGY: A CENTURY OF PROGRESS. 1993. By Robert B. Aird. Published by Raven Press, New York. 315 pages. \$C111.00

Recent generations have become accustomed to an impersonal form of medical writing, with observations reduced to figures, relevance reduced to *P* values and personal experience and feeling expunged. However, this book continues the personal approach of Aird's 1988 article on 20th century neurology.¹

A predecessor to this book was "The Founders of Neurology", compiled by Haymaker in 1953 which documented the careers of neurologists and neuroscientists to the midpoint in this century.² That compilation, however, described careers in a rather matter-of-fact manner. Aird approaches this differently. He obviously loved his relationship with his contemporaries and was excited by the flowering of neurology during his career. He knew most of those major figures of 20th century neurology. They vary from Harvey Cushing, who died in 1939, to Ottawa born James Gruselo, who was born in 1954. In approaching the array of 20th century clinicians and neuroscientists, he places them in the categories for which they were best known – epilepsy, neurological diagnosis, neuroanatomy and neuropathology, neurophysiology, neurochemistry and pharmacology and the various basic and clinical fields. He includes groups in the categories of art of medicine and neurological education, and concludes with a group of outstanding teachers, statesmen, and "legendary" neurologists.

I was impressed by his inclusion of the contributors in associated fields such as neurochemistry, neurophysiology, neuropathology and neuroradiology. This was the age of towering personalities,

impeccable neurological examination, and theatrical flourish in teaching. Clinicians struggled to relate physiology and pathology and the new sciences to the clinical setting.

Such an encyclopedic task requires some hard decisions. I expect many will criticize this work, and might recommend changes that would produce a more scholarly unread reference book rather than this personal recollection. One great value of a work like this, written by someone who walked and worked along with those struggling to advance neurology, is the capturing of those who also contributed to the field in many ways but never gained recognition. It is important that those who advanced our knowledge be acknowledged. Perhaps a personal reminiscence of a peripatetic fellow traveller is one of the few ways (other than impersonal reference lists) that these individuals will achieve a lasting memorial.

This is an entertaining book, particularly for those interested in knowing something of the personalities, quirks, hobbies and styles of these well known clinicians and scientists. The neurologists trained in the 1950 - 1980 era would enjoy this book because they would have seen and heard many of these leaders when visiting other centres and attending national and international meetings. Those whom they did not know they would have heard of from their teachers. I am not sure how the newest generation would view all of this, but neurologists are noted for their interest in history, particularly the history of their discipline, so I expect that there would be wide appeal even among recent trainees.

Aird occasionally digresses. For instance, in the brief outline of Penfield's life he describes how Penfield rose to ask him a question after one of his papers in 1947. He then allows almost equal space to the description of his own work to show that Penfield's question was perceptive. Because this is a personal account it is understandable that his own work and activities appear repeatedly in the account of others, but this could have been dampened a little. He makes only a small attempt to balance the prominence or contributions of the person with the length of their section, but does use certain individuals to illustrate the development of neurology in an area.

Aird notes the variable pattern of honours that came to the major founders of modern neurology, some extensively honoured (Penfield, Eccles, Lord Adrian, Lord Brain) and some quietly applying themselves to their work and earning fewer honours but great respect (Greenfield). His admiration for wonderful teachers like Macdonald Critchley is evident. A new generation of neurologists might think that these major contributors to the development of neurology in the first part of the 20th century have left us, but I visited the 94 year old Macdonald Critchley in Nether Stowey, Somerset in 1993, and he was working on a life of Hughlings Jackson.

The personal anecdotes add color to the account of their careers. For instance, Aird remembers assisting Harvey Cushing at the Peter Bent Brigham Hospital, and being taught how to scrub up by Norman Dott of Edinburgh, a visiting surgical fellow who used the technique of scrubbing in the dark with lamp black over the hands, to ensure you know the technique. We read of Cushing's high strung temperament when things did not go well in the OR, and of Dandy's profanities in similar circumstances.

It was interesting to learn that Frank Ford, perhaps the major contributor to pediatric neurology in those formative years, never had a bed service, and had minimal training in neurology and no training in pediatrics. (Although it is stated he never had residency training, he actually was a resident in psychiatry under Adolf Meyer, and served as a resident in neurology under Foster Kennedy, but he did not complete full postgraduate training.) He was an