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## BOOK REVIEWS

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### More Old Gold Than New

*Organic Psychiatry. The Psychological Consequences of Cerebral Disorder* (3rd ed.).  
W.A. Lishman, 1998. Oxford, UK: Blackwell Science. 922 pp., \$99.95.

Reviewed by MURIEL D. LEZAK, Ph.D., *Department of Neurology, Oregon Health Sciences University, Portland, OR.*

Since its first publication in 1978, and even more since having the second edition (1987), this prodigious compilation of clinically relevant information about the spectrum of neuropsychiatric entities and issues has been one of my most used reference books. Among its many virtues are its clarity of presentation, useful documentation, and coverage of just about all neurologic disorders that have behavioral (i.e., psychological and/or psychiatric) implications. I would not have wanted to practice or write without the current edition of Lishman at hand.

While keeping the same organization, text, and—for the most part—section headings of the previous edition, the third edition also contains valuable updated material: this edition is almost 200 double-column 52-line pages longer than the second. Updating is most evident in the presentation of clinical disorders which are new or have become “hot topics.” For example, Lyme disease, Epstein-Barr virus, Tardive Akathisia, and Lewy body dementia are among the newcomers. Discussion of Creutzfeldt-Jakob disease has expanded from four to six pages. Schizophrenia no longer just receives mention here and there but has, additionally, nine pages of its own in which it is treated as a neuropathologic entity and not merely a set of symptoms that may appear in conjunction with other diseases. The review of neuroimaging is greatly expanded, elaborated, and graced with a series of 19 colored plates illustrating various imaging techniques.

So I find this text as useful as before with much pertinent updating. However, I am puzzled by the quantity of mate-

rial that has not been updated—or updated by only a single reference—despite the literature explosion in all areas of the clinical neurosciences. I can open the book to almost any page and find these kinds of omissions: The first two pages on boxing are virtually unchanged from 1987; the only study cited under “Neurological features” dates from 1969, and the most recent date on these two pages that deal also with “Psychiatric features” and “More recent investigations” is 1984—the truly “more recent” studies show up on the next page. In the four pages covering suicide, affective disorder, EEG, and telemetry in epilepsy, the most recent citation is from 1985, found also in the second edition. Even more puzzling is the absence of reference to any studies later than 1982 in the discussion of carbamazepine and phenytoin. Etc., etc.

Despite these deficiencies I recommend this outstanding one-man achievement for all clinicians working in neuroscience-related areas. I know of no other text that covers the neurobehavioral disorders, their neuropsychiatric examination, and their medical treatment with such breadth and such clarity. Insufficient updating makes this work much less useful as a general reference for researchers, and also requires clinicians to look elsewhere to supplement the obvious lacunae in this text (e.g., for current information on medication for epilepsy). If you already have the second edition, the additional 116 pages of text may not be worth the price. However, clinicians, if you don't have a copy of Lishman on your shelf, you'll not regret getting this new addition.

### Living Inside an Injured Brain

*Over My Head—A Doctor's Own Story of Head Injury from the Inside Looking Out.* Claudia L. Osborn. 1998. Kansas City, MO: Andrews McMeel Publishing. 256 pp., \$21.95 (HB).

*Coping with Mild Traumatic Brain Injury*. Diane Roberts Stoler and Barbara Albers Hill. 1998. Garden City Park, NJ: Avery Publishing Group, Inc. 284 pp., \$14.95 (PB).

*Acknowledged a Man*. Barbara Del Buono. 1998. Watertown, CT: The Ellingsworth Press, LLC. 373 pp., \$22.95 (HB).

Reviewed by RONALD M. RUFF, *Director of Neurorehabilitation at St. Mary's Hospital and Medical Center, Associate Adjunct Professor, Dept. of Neurosurgery, UCSF, Clinical Neurosciences, 909 Hyde Street, Suite 620, San Francisco CA 94109.*

I cannot count the times that patients have looked at me and said, "No one really understands me unless they have had a brain injury themselves!" I agree, and therefore avoid such over-used phrases as, "I understand" and "I know what you're going through" when communicating with TBI patients. Claudia Osborn, D.O. lives inside an injured brain, and she provides a gripping account of how a bicycle accident permanently altered her life. At the time of her accident, Dr. Osborn enjoyed her multifaceted career in internal medicine, and after her accident she fully expected to return to her profession. In fact, her neurologist supported her return to work, yet she was completely non-functional due to a pronounced anterograde amnesia that precluded her from diagnosing her patients. Due to a serious mistake that Dr. Osborn herself caught, she sought treatment and relocated from Detroit to New York to enter a 10-month program at the NYU Head Injury Center, with the support and encouragement of her family and friends. Her descriptions of mismanaging the shopping and getting lost in the maze of public transportation in New York City are brutally honest, painful and occasionally funny accounts, and the chapters are peppered with sections from her diaries and correspondence. The book provides a touching description of her long journey of grieving her loss, accepting and creating an alternate path. Given her severe amnesia, it is puzzling that she was able to write this detailed account, yet I suspect that the strong women in her life provided the love and support needed for Dr. Osborn to write this well-written book.

Diane Stoler, Ed.D., takes an entirely different approach, since her own account of her brain injury is minimized. Instead, she and her skilled co-author, Barbara Albers Hill, outline a practical self-help guide in an easy-to-digest format for mild TBI patients and their families. I stumbled over the definition they provide for mild TBI (which needs updating), yet further reading endeared the book to me. Dr. Stoler has a background as an educational psychologist that shines through in the well-organized chapters, and the didactics of how the text is authored. The thoroughness, along with the practical recommendations that conclude the chapters on physical, mental and emotional rehabilitation, are a work of love. Indeed, the glossary and resources allow the reader to utilize the book section by section, according to interest. I will recommend this book especially to my pa-

tients with persistent complaints subsequent to mild TBI. However, I would not indiscriminately recommend that all my mild TBI patients read this book, since it does not emphasize enough that a majority of mild TBI patients make a favorable recovery. Understandably, given the intent of the authors, they omit the literature that is very critical of many patients who complain of persistent difficulties subsequent to mild TBI, especially if patients are in litigation.

The book by Barbara Del Buono provides the perspective of a mother whose 25-year-old son survived a very severe TBI. Ms. Del Buono, married to an attorney, is what one might call a "soccer mom" of six children, whose meaning in life is her faith and the well-being of her family. She does not shy away from describing her negative experiences, and even quotes some of the clumsy responses of health-care professionals. The account of her son is touching, but it also details the issues that are unique to family members. It deals with her difficulty in finding the appropriate hospitals and dealing with insurance companies; it covers their entire legal process, and the growing strength of the family that had to occur in order for them to get over these hurdles. The dimension of spirituality is emphasized, because it has provided them the needed strength, courage and love to bond in the care of a TBI family member. In order to overcome the significant pressures on this family, a remarkable strength and courage was formed.

When reflecting upon these three books, it became painfully clear to me that living inside an injured brain requires the dedicated efforts of an entire "village" to assist such patients. Yet in the USA, the trend for making resources available for the treatment of TBI patients is going in the wrong direction. The advances, made in the '80s, in developing specialized rehabilitation programs and transitional living facilities, have been pushed aside by the cost-cutting efforts of the health management organizations. Why does the richest country in the world, with one of the strongest economies in the '90s, turn its back on facilitating the long-term recovery of TBI patients? Today, it is not uncommon in California for a severe TBI patient to be discharged into the care of his or her family after only 2 to 3 weeks of postacute rehabilitation services. The reviewed books spell out the need for long-term specialized TBI programs. Let us—patients, families, insurance companies and health care providers—each do our part to reverse this trend.

## The Gap and Memory in Neurodegenerative Disease

*Memory in Neurodegenerative Disease: Biological, Cognitive, and Clinical Perspectives.* A.I. Tröster (Ed.). 1998. Cambridge, UK: Cambridge University Press. 413 pp., \$95.00.

Reviewed by DARYL L. BOHAC, Ph.D., *Department of Psychiatry, University of Nebraska Medical Center, Omaha, NE 68198-5580.*

This edited book has the stated purpose of filling the gap between books on normal memory and books dealing with abnormal memory by focusing specifically on memory in neurodegenerative conditions. The editor has done so by organizing the book into three main sections representative of different perspectives on memory. Each of these sections, biological, cognitive, and clinical, are summarized to coalesce the respective viewpoints into a cogent state of the art perspective for each section. The editor's intended audience includes neuropsychologists, neurologists, psychiatrists, and neuroscientists.

The book begins with biological perspectives of memory disorders in neurodegenerative diseases. The first chapter reviews nonhuman primate models of memory dysfunction and the second chapter discusses nonprimate animal models associated with Huntington's disease. Despite the aim of the text—to focus specifically on memory—it is in the second chapter where one encounters the first instance of discussion of symptoms of the disease. This works, since it allows a much more complete discussion of the extant animal research on Huntington's disease than would have otherwise been possible if the author had elected to artificially dissect memory from behavior in nonprimate animals. The chapters that follow review the current knowledge of the neuropathology in various neurodegenerative disorders. The reader is well served by the author's discussion of not only the original consensus pathological criteria for diagnosis of Alzheimer's disease (AD), but also a review of the geographical changes congruent with the pattern of neuropsychological deterioration often found in AD. This is important since the staging of these changes has now been incorporated into the revised pathological diagnostic consensus criteria. Next, the roles of neurotransmitters in three archetypal degenerative disorders—AD, Parkinson's disease (PD), and Huntington's disease (HD)—are discussed. The biological perspectives section concludes with two chapters on neuroimaging. The first of these chapters addresses the role of structural neuroimaging, CT and MRI, and the advent of volumetric measures with MRI. Many types of neurodegenerative disease are considered, including AD, PD, HD as well as alcoholic dementia, Korsakoff's, Pick's disease, multiple sclerosis, and AIDS. The second neuroimaging chapter focuses on functional imaging strategies and includes a brief review of techniques used with functional MRI and positron emission tomography. The authors of both chap-

ters address the issue of normal aging and its expression with the respective imaging techniques.

The next major section of the book addresses cognitive perspectives of memory in neurodegenerative disease. The initial chapter in this section reviews working memory models and the role of executive deficits in memory disorders. One area that is rarely addressed in clinical discussions of memory, ostensibly due to the paucity of standardized instruments or methodology, has to do with prospective memory, or remembering to remember. This is remedied by a chapter devoted to prospective memory with discussion of current cognitive models and clinical implications for Alzheimer's disease and Parkinson's disease. The remainder of this section reviews remote, semantic, and nondeclarative memory models and how each of these three types of memory are disordered in the various neurodegenerative disorders.

The final section of the book is devoted to clinical perspectives on memory in neurodegenerative disorders. This section begins with a review of the biological and psychosocial risk factors for dementia. The chapter is notable for its balanced overview of the role of education and succinctly discusses the methodological problem of detection bias in prevalence studies of dementia. It falls slightly short in its discussion of genetic risk factors associated with AD. While the chapter authors do well to acknowledge the limited specificity of the association between APOE-4 and AD, they fail to discuss the research that has demonstrated a limited window of risk for AD whenever the E-4 allele is present. The discussion then moves to cross-cultural issues in clinical work in dementia. This chapter presents an excellent review of the challenges to making comparisons between cultures for the dementia syndromes and highlights the need for greater consensus on diagnostic standards and the need for reliable and valid means of detecting dementia across cultures.

A chapter discussing psychometric issues deals with patient characteristics influencing clinical assessment of dementia, reviews the psychometric properties of commonly used memory assessment devices, and concludes with a brief review of estimating premorbid memory and the reliable detection of change. Although the new version of the Wechsler memory scale is mentioned, a fuller description of the test would have been useful, although publication deadlines may have prevented this. Next, the preclinical detection of dementia and differential diagnosis are reviewed followed

by a chapter discussing the impact of depression on memory in neurodegenerative disorders. The clinical section is rounded out with a series of chapters of preserved cognitive skills, drug treatment, and surgical interventions used in neurodegenerative disease. Finally, the ethical and legal issues surrounding the treatment and diagnosis of dementia are reviewed.

This volume achieves its stated goal of filling the gap between books on normal memory and books dealing with abnormal memory through its specific focus on memory in neurodegenerative conditions. It provides the reader with a comprehensive source of information on memory in neuro-

degenerative disorders. It is noteworthy for its inclusive rather than exclusive nature, as it offers perspectives from a variety of disciplines seeking to understand, diagnosis, and treat neurodegenerative disorders. The only caveat is that given the relatively rapid rate of new discoveries in genetics and the biology of neurodegenerative conditions, the biological section may become more quickly dated than the cognitive and clinical sections. Nevertheless, this edited book offers a great deal to persons interested in neurodegenerative disorders where memory is significantly affected, particularly those who are first delving into the area or are looking for a comprehensive source of information.

### ‘The Hand Is the Cutting Edge of the Mind’

*The Psychobiology of the Hand*. K.J. Connolly. 1998. Cambridge, UK: Cambridge University Press. 176 pp., 45 £.

Reviewed by KATHLEEN Y. HAALAND, Ph.D. *Psychology Service, Veterans Affairs Medical Center, and Psychiatry and Neurology Departments, University of New Mexico School of Medicine, Albuquerque, NM, USA.*

Connolly’s preface to this book ends with Jacob Bronowski’s very apt quote, “the hand is the cutting edge of the mind.” The “Preface” illustrates his fascination with the complexity of human movement:

*Recollect for a moment what you have been doing over the past two or three hours. . . . When I pick up a book in order to read it, my hands are closely engaged: I reach, grasp, lift, orientate the open book and hold it in a particular location, and from time to time I perform the delicate task of turning a page. My right hand usually takes the lead in manipulations such as page-turning, while the left is employed in the more robust duty of holding the book. My hands are doing different things, yet they are working together making different movements and applying different forces in the performance of a skilled action. . . . These few examples of some everyday activities point to the remarkable properties and astonishing capacities of the hand. Our hands are central to our psychology as they continually switch between executive, exploratory and expressive activity.*

Neuropsychologists have neglected the cognitive aspects of movement. They have used motor tasks as indicators of lesion laterality with a focus upon simple movements (i.e., grip strength) that are impaired strictly in the limb contralateral to unilateral lesion. However, as the cognitive requirements of the motor task increase (e.g., Grooved Pegboard) damage to either hemisphere produces impairment in both hands (see Haaland & Harrington, 1996, for review). These findings suggest that both hemispheres are

necessary to control more complex motor tasks with stronger cognitive requirements. The potential clinical importance of motor tasks is illustrated by research that suggests that finger tapping may be a good indicator of rehabilitation outcome (for review see Prigatano, 1999).

Neuropsychologists need to know more about the neural control of motor skills, especially the cognitive aspects of movement (e.g., planning, selecting the appropriate movement). This book provides some of that information. What is missing is both a more explicit conceptual framework to orient those who are not well acquainted with motor research and chapters on movement deficits in brain damaged adults in the context of limb apraxia. Apparently, a chapter on limb apraxia in adults after brain damage was planned but not completed. Limb apraxia is important because it is the major clinical syndrome that illustrates that “the hand is the cutting edge of the mind” and that the left hemisphere is dominant relative to the right hemisphere for controlling many complex movements in both the right and the left hand (Haaland & Harrington, 1996).

Despite the omission of a review of hemispheric differences, intrahemispheric differences are discussed by Haggard and Forssberg in their chapters on human prehension and the neurophysiology of manual skill development. They emphasize research that delineates the role of the ventral occipitotemporal pathway in object perception (i.e., the “what” system) and the dorsal occipitoparietal pathway in

“how” to perform movements (Goodale & Milner, 1992). This is an important distinction because it contrasts with the more well known formulation that occipitotemporal circuits constitute the “what” system, and occipitoparietal circuits are responsible for object location or “where” the object is (Mishkin, et al., 1983).

This book spans a broad range of perspectives beginning with the anatomy of the hand and extending to prehension in the human and nonhuman primate, manual dexterity, handedness, and normal and abnormal development of motor skills. The chapter on the structure of the hand was most interesting because it is unique and addresses an issue that is rarely discussed in detail within neuropsychology. The manual dexterity and human prehension chapters present the cognitive aspects of complex movement. Several other chapters deal with motor development and also touch upon cognitive factors.

This book provides a broad sampling of issues affecting the cognitive, neural, and developmental aspects of movement, but no conceptual framework is presented to allow the reader to come away with a new way of thinking about movement. This problem is partly related to the multidisciplinary nature of this research, but it is partly related to the

topics selected. A more detailed preface, specifying the linkage among these chapters, would have been helpful, especially to readers who are not involved in movement research.

In summary, some of the chapters in this book will be of interest to those with a specific interest in movement, but the book is too esoteric and not well enough integrated to be of general interest to clinical or experimental neuropsychologists.

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- Prigatano, G.P. (1999). Impaired awareness, finger tapping, and rehabilitation outcome after brain injury. *Rehabilitation Psychology*, 44, 145–159.

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## OTHER BOOKS OF INTEREST

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Coppens, P., Lebrun, Y., & Basso, A. (Eds.). (1998). *Aphasia in atypical populations*. Mahway, NJ: Lawrence Erlbaum Associates. 336 pp., \$69.95.

Gross, C.G. (1998). *Brain, vision, memory: Tales from the history of neuroscience*. Cambridge, MA: The MIT Press. 255 pp., \$16.50 (PB).

Milner, P.M. (1999). *The autonomous brain: A neural*

*theory of attention and learning*. Mahway, NJ: Lawrence Erlbaum Associates. 155 pp., \$57.95.

Roberts, A.C., Robbins, T.W., & Weiskranx, L. (Eds.). (1998). *The prefrontal cortex: Executive and cognitive functions*. Oxford, UK: Oxford University Press. 248 pp., \$45.00 (PB), \$95.00 (HB).

Tarr, M.I. & Bülthoff, H.H. (1998). *Object recognition in man, monkey, and machine*. Cambridge, MA: The MIT Press. 217 pp., \$32.50 (PB).