

## BOOK REVIEWS

### Movement

*The Neurophysiology and Neuropsychology of Motor Development.* Kevin J. Connolly and Hans Forssberg (Eds.). 1997. London: Mac Keith Press. 378 pp., \$90.00.

Reviewed by HARUO KASHIMA M.D., Ph.D., *Department of Neuropsychiatry, School of Medicine, Keio University, 35 Shinanomachi, Shinjuku-ku, Tokyo 160-8582, Japan.*

This edited book addresses the important topic of child development in the last half of this century. The central focus of the book is the development of skilled motor actions by children, such as maintaining posture, walking, reaching, and grasping. The contents are based on the papers contributed in the first Mac Keith Meeting held at the Royal Society of Medicine in London in 1994. According to the preface to the book, the meeting aimed at making connections between levels of explanation, normal and pathological processes, basic and clinical research, and so on. Therefore, underlying themes are linking neurophysiological and psychological explanations, pre- and postnatal behavior, input and output processes, ballistic and graded movements, stability and variability, and so forth. In fact, the book succeeds in integrating findings from clinical and basic sciences to both normal and pathological motor development.

The book consists of 16 state-of-the-art chapters which, together, provide an overview on motor development. The opening chapter, by J.K. Brown et al. (“Brain Development and the Development of Tone and Movement”) is a comprehensive review of the embryological and behavioral aspects of human motor development. In chapter 3 (“Postural Control in Children: Development in Typical Populations and in Children With Cerebral Palsy and Down Syndrome”), D. Matiello and M. Woollacott review the development of postural control in the infant and young child from the stage

of emerging head control to refinement of stance and systems perspectives related to this developmental process. In chapter 4 (“Neurobiology of Normal and Impaired Locomotor Development”), H. Forssberg and V. Dietz contribute a review of neurophysiological research for normal and impaired locomotor development.

Many papers address the issue of developing processes in both normal and pathological conditions. L.J. Carr and J.A. Stephens present hopeful evidence for reorganization in the nervous system at spinal cord level in early unilateral cerebral cortical damage, giving many suggestions regarding the rehabilitation for the adults in chapter 9. In the following chapter, D.N. Lee et al. contribute a very original and unique discussion, “Perception in Action Approach to Cerebral Palsy.” In the end, three chapters “Variability and Stability in the Development of Skilled Actions,” by E. Manoel and K.J. Connolly; “Dynamic Systems Theory and Skill Development in Infants and Children,” by B.D. Ulrich; and “Adaptive Model Theory: Central Processing in Acquisition of Skill,” by P.D. Neilson et al., compile models for motor actions from a developmental perspectives.

This is, without a doubt, a much-needed publication. Its information-packed chapters, along with new data and theoretical ideas, can be used as a textbook for pediatricians and developmental neuropsychologists and serve as a reference for the clinician and researcher alike.

### Detecting malingering: The current state of the art (such as it is)

*Detection of Malingering During Head Injury Litigation.* C.R. Reynolds (Ed.). 1997. New York: The Plenum Press. 291 pp., \$45.00.

Reviewed by NILS R. VARNEY, Ph.D., ABPP, *Staff Neuropsychologist, Iowa City VA Medical Center and Associate Professor of Psychology, The University of Iowa, Iowa City, IA*; and DAUSHEN JU, Ph.D., *Senior Staff Psychologist, University Counseling Service, The University of Iowa, Iowa City, IA.*

While the fact of litigation in neuropsychological assessment is about as subtle as a horse in a bedroom, it does not necessarily follow that the nature of malingering behaviors

is also obvious or that the logic and techniques of malingering assessment have achieved “mature” validity. Despite the dramatic increase in studies on malingering in recent

years, detection of malingering in head injury litigation continues to be a challenge for neuropsychologists. Numerous studies, most published since 1994, have attempted to search for the best technique for identifying malingering and/or malingers. Unfortunately, this effort has been hampered by the lack of clinical data regarding the complexity and diversity of malingering behaviors themselves. In addition, the research is being conducted by clinical neuroscientists who, in various ways, are somewhat unsophisticated in their views of malingering detection statistics, paradigms and proofs (vs. forensic psychologists, maybe?).

Reynolds observes that “research (on malingering in head injury) has prompted many strong ideas and creative approaches to the detection of malingering but has likewise spawned a considerable tautology and clinical mythology.” In heeding his own advice, Reynolds’ book on malingering detection takes a substantial (and much needed) step away from stridency, oversimplification, the mild head injury debate, and name-calling generated by high-octane forensic work. In a very positive way, the evenhandedness and depth of skepticism seen in most chapters is much needed and successfully accomplished. The book raises far more questions than it answers, but these are very good questions. Because the book is critical of a variety of presuppositions involved in contemporary malingering research and clinical practice, there is potentially something to irritate anyone in the book (i.e., the book has teeth, as opposed to Barnum statements). In the book’s Preface, Reynolds predicts such a readership response because good questions can suggest disagreeable conclusions for multiple (often conflicting) views on the malingering debate.

The first two chapters are “think pieces.” In chapter 1, Faust and Ackley discuss a number of issues about the logic (clinical and statistical) of malingering detection. The material presented is complex, as befits the topic and target symptoms. The multiple threads of logic that are presented simultaneously show the inadequacies of all positions currently voiced about malingering and will likely leave the clinician feeling vulnerable. Faust and Ackley seem to want the clinical neuroscientist who does malingering detection to appreciate the enormous complexity of the enterprise, ranging from psychosocial risk to paradigmatic assumptions, that are familiar to researchers in other relevant areas of psychology. In the preface of the book, the editors admit that they could not decide whether to have the Faust and Ackley chapter first or last. I think that reading the chapter in both positions is a quite reasonable compromise since it both asks questions addressed later and provided advice on questions generated by subsequent chapters.

In the second chapter, Gouvier, Hayes, and Smiroldo discuss the importance of considering base rate information when a psychologist determines whether a clinical or psychometric symptom related to malingering has diagnostic significance. This is hardly as boring or purely actuarial as it sounds. Gouvier et al. are quite energetic about bringing to light the current state of neuropsychological ignorance

concerning the logic of malingering paradigms and diagnostics. It is particularly interesting that Gouvier et al. use a statistical platform to demonstrate the complexity of malingering diagnostic logic and assumptions. That is, while their proofs may be statistical, the points made concern the basic clinical or theoretical foundations of malingering behavior and its *reliable* identification. The chapter is also decidedly fair-minded in that there is no indication of bias toward plaintiff or defendant. The chapter could be used as stand-alone reading material in statistics or methodology courses for graduate and undergraduate students.

Chapter 3, by Gutierrez and Gur, is concerned with forced-choice paradigms, particularly as tasks ideal for computer assisted administration. Within the narrow bandwidth of the topic, the coverage is complete and fair-minded. It does, however, almost require that the reader accept that computer assisted assessment is good, reliable, inevitable, and cost effective.

J. Michael Williams, author of chapter 4, makes several suggestions on the future improvement of symptom validity tests, such as the contrast of performance between recall and recognition procedures and measures of response latencies and also provides practical suggestions on how malingering measures can be improved. There is also an excellent review of factitious responding as something to be observed as well as tested for clinically.

Detecting malingering via response patterns on neuropsychological batteries is discussed by Golden and Grier on the Luria-Nebraska Neuropsychological Battery (chapter 5) and Reitan and Wolfson on the Halstead-Reitan Battery (chapter 6). Authors of both chapters endorse the use of various reliability information, such as internal consistency and response patterns to items of different levels of difficulties, as a way to detect malingering. Comparison of test results across different test administrations may provide valuable information on test-related consistency, but this has very limited real-world applicability. Obviously, lessons learned from these chapters apply mainly to the Luria-Nebraska or Halstead-Reitan testing materials.

The MMPI has always *seemed* a safe harbor for the assessment of response bias. The MMPI-2 has added several new validity indices in detecting random responses or over-reporting psychopathology. In chapter 7, Berry and Butcher summarize empirical findings of MMPI and MMPI-2 on malingering of head injury. They indicate that the MMPI and MMPI-2 are sensitive in the identification of patients who overreport psychological symptoms, but are of very limited value with those who are selective in symptom presentation (i.e., the patient whose only bogus claim is severely impaired memory). This limitation is by no means unfamiliar to other paradigms. The malingers who “fake bad” on tests and get caught are likely to be unsophisticated and uncoached. Also like many other single-measure malingering detection techniques, the MMPI-2 needs to demonstrate its sensitivity to various malingering behavior before its effectiveness as a malingering measure is proven.

In chapter 8, Hartlage identifies three parts of an exam (which need to be considered concurrently) where clinicians can look for incongruities that may in turn be signs of malingering. These are (1) clinical observation, (2) test results, and (3) context. In response to the increasing use of technicians in test administrations and the prevalence of blind interpretation, Hartlage underscores the importance of observation by seasoned clinicians as an essential means of gathering diagnostic information. Congruence among and across test results is also emphasized, as are contextual factors (e.g., potential for secondary gain, bias of certain tests) which potentially could contaminate test results. The words “detection” and “control” are each identified as desirable ends, so the chapter shows reasonable balance in its advice.

Reynolds, in the concluding chapter, highlights the major viewpoints set forth by previous chapter contributors. He suggests clinicians start malingering investigation with a comprehensive search on litigants’ developmental, edu-

cational, psychosocial, and medical history, evaluate the congruence of current mental status with base rates of known sequelae of head injury, examine the consistency among and across test results, and employ malingering measures as supplementary information or one part of a broad based assessment. This exhaustive process is meant to ensure ethical practice and maintain the optimal professional standards.

In large part, this book is a pleasant surprise. It offers a substantial amount of information, observation, and theory about malingering in a manner which is as nonabrasive as could be imagined for such a work. Reynolds’ book covers a number of the difficult issues in the assessment and incidence of malingering well. At the same time, the state of the art is primitive, and hopefully the second edition of the book will be able to identify more right answers (*vs.* good questions).

The book is a bargain at \$45.00 and is worth the attention of anyone concerned about malingering detection.

## Obsessed With Tics

*Tourette’s Syndrome—Tics, Obsessions, Compulsions*, by J.-F. Leckman and D.-J. Cohen. 1999. New York: John Wiley & Sons, Inc. 584 pp., \$89.95.

Reviewed by MARTHA BRIDGE DENCKLA, M.D., *Developmental Cognitive Neurology, Kennedy Krieger Institute, 707 North Broadway, Suite 516, Baltimore, Maryland 21205.*

This is an excellent clinical textbook by a group steeped in a quarter of a century’s clinical experience and basic research experience. For members of INS who desire a rich and deep resource book on Tourette syndrome (this reviewer was trained to omit the possessive ‘s’ for all eponymous genetic designations) this one from the Yale Child Study Center provides the best choice. The organization of the book is also praiseworthy, as each chapter ends with a “look back” summary and a preview of the next chapter. It has the virtues of harmonious voices, coming as it does from a single center. The medical (including but not limited to neuropsychiatric) and biological sciences are presented in depth, clearly and thoughtfully, and well integrated with the clinical breadth of coverage of the core disorder and Tourette syndrome’s (TS) comorbidities. Attention Deficit Hyperactivity Disorder (ADHD), and Obsessive Compulsive Disorder (OCD).

Two minor omissions, despite the excellence of the neuropsychiatric and broader science chapters thus far lauded, are: (1) it would have been nice to have a fuller discussion of the relationship between tics and stimulants; and (2) more figures and diagrams might have enhanced the chapter on neuroanatomical circuitry.

Now for the aspect of the book that will disappoint INS members: the chapter (5) on neuropsychology and, in con-

sequence of its limitations, the lack of coordination between it and the other chapters of interest to psychologists and educators. Thus, while recommendations for teachers emphasize the factor of executive dysfunction in association with TS, ADHD, and OCD, the relevant chapter 5 (“Neuropsychological Findings”) reveals a lack of sophistication about the domain of executive function, including a remarkable exclusion of verbal components/tasks like fluency, and has recourse to “visual–motor integration” as a construct set aside from and highlighted as more fundamental than the executive demands with which tests of visual–motor integration are substantially loaded. When appropriate literature is cited, contents thereof are naively interpreted. Thus there is, in contrast to the bulk of this wonderful book, an odd “cognitive dissonance” reverberating between the neuropsychological and psychoeducational chapters.

Since INS members are presumably less in need of textbooks summarizing or interpreting for them findings that come from the behavioral neurology/neuropsychology literature, this weakness should not deter them from seeking out this book for the overwhelmingly complete and thoughtful treatment it provides on most aspects of this intriguing neuropsychiatric triad (TS, ADHD, OCD).

## Looking for Funding in All the Right Places

*The Strategic Grant-Seeker: A Guide to Conceptualizing Fundable Research in the Brain and Behavioral Science*, by J. Illes. 1999. Mahwah, NJ: Lawrence Erlbaum and Associates. 174 pp., \$39.95 (HB), \$18.50 (PB).

Reviewed by ANNE D. LEZAK, M.P.A., *grant writer/mental health consultant, 7 North Road, Mendon, Vermont.*

The aim of this compact, well-organized volume is to guide the hopeful brain and behavioral sciences researcher through the entire proposal and funding process, from conceptualizing an initial project idea all the way to preparation of final reports and competing renewal applications. Particularly for the novice grant-seeker, this volume is a useful aid to cracking the often mystifying world of research funding opportunities.

The book begins with a brief chapter describing major sources for grant support, both public and private. The author correctly steers readers to the Internet to explore funding opportunities. She provides a sampling of Internet addresses, although her short list leaves out those of some of the most relevant agencies (NIH, NIMH), and does not mention the Federal Register as a key source of up-to-date federal funding information readily available on the Internet.

In the next four chapters, Dr. Illes maps out the four major types of funded research: project-based research, career development programs, multicomponent research programs, and small business innovation programs. Graduate students beginning to explore research possibilities would do well to scan these chapters to gain an understanding of these four research genres. The bulk of these chapters are devoted to step-by-step guides to conceptualizing sound, fundable research projects. Each step of the research conceptualization process is a condition which must be met before proceeding to the next project design step (e.g., “The Expertise of the Research Team Must Match the Project Goals”). For each step, Dr. Illes presents the reader with a series of key questions, all of which must be answered affirmatively before proceeding. This useful approach is unfortunately weakened by wordiness: The questions tend to be preceded by overly lengthy explanations, and are often followed by a redundant sentence or two reminding the reader that if any of the answers are negative, the experimental plan must be revised.

In the last half of the text, the author draws on her considerable grant-writing experience to provide excellent guidance for preparing winning research proposals. She clearly understands the importance of writing for the reviewers, leading them through a well-organized, compelling proposal that is fully responsive to each requirement. Dr. Illes walks the reader through the sections common to most grant proposals, dispensing valuable advice supported by illustrative examples. In addition to a full discussion of the major sections of research proposals, she underscores the importance of

such seemingly minor details as the proposal title, organization of the table of contents, and selection of key words for federal proposals. Depending upon how they are handled, these aspects can contribute to or detract from proposals in significant ways, as the author demonstrates.

As a grant reviewer who has waded through my share of nearly unreadable proposals, I was especially taken with the author’s list of “do’s and don’ts” regarding communicating effectively in writing, many of which readily generalize to all kinds of written work. I do have two quibbles with her otherwise excellent recommendations. First, Dr. Illes advises against using formatting, such as boldface, underlining, or capitals, rather than content to make one’s point. While content clearly comes first, I have found that aesthetic appeal and drawing the reader’s attention to important points are also critical. This means leaving adequate white space as well as setting off and emphasizing separate sections, which in my experience requires judicious use of a variety of formatting tools. Second, the author uses the phrase, “Our results will impact . . .” as an example of effective communication. I view it as precisely the opposite.

The text is punctuated with a generous number of tables and schematic figures, many of which contribute significantly to the text. The table listing basic information about Small Business Innovation Research (SBIR) and Small Business Technology Transfer Research (STTR) for example, neatly summarizes the major features and funders of these programs. The schematics of multicomponent research programs provide a clear visual picture to help explicate the various organizational possibilities. The one exception to the general helpfulness of the charts and tables is that the figures depicting “conceptualization pathways” for the four major kinds of research the book describes include confusing sets of arrows that muddy an otherwise clear and useful ordering of the decision steps involved in designing successful research proposals.

This book’s minor limitations are real enough, but they pale in comparison with the wealth of information presented. Dr. Illes generously shares strategies and knowledge that can only be accumulated through years of immersion in her special area of expertise. *The Strategic Grant-Seeker* is well worth including in academic libraries and other facilities used by would-be researchers embarking on the twin challenges of developing meaningful research projects and locating sources interested in funding them.

**OTHER BOOKS OF INTEREST**

Burgess, N., Jeffery, K.I., & O'Keefe, J. (Eds.). (1999). *The hippocampal and parietal foundations of spatial cognition*. New York: Oxford University Press. 490 pp., \$54.90 (PB).

Faraone, S.V., Tsuang, M.T., & Tsuang, D.W. (1999). *Genetics of mental disorders*. New York: Guilford. 272 pp., \$30.00.

Jeannerod, M. (1997). *The cognitive neuroscience of action*. Oxford, UK: Blackwell. 236 pp., \$29.95 (PB).

Milner, A.D. (Ed.). (1998). *Comparative neuropsychology*. New York: Oxford University Press. 300 pp., \$52.50.

Ramón y Cajal, S. (1999). *Advice for a young investigator*. (N. Swanson & L.W. Swanson, Trans.; original work published 1897). Cambridge, MA: The MIT Press. 150 pp. \$22.50.

Spitzer, M. (1999). *The mind within the net: Models of learning, thinking and acting*. Cambridge, MA: The MIT Press. 359 pp., \$27.50.

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