

BOOK REVIEWS

A Handy Neuropsychological Reference Updated

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The Handbook of Clinical Neuropsychology, Second Edition. Jennifer M. Gurd, Udo Kischka, John C. Marshall (Eds.). (2010). New York, NY: Oxford University Press, 894 pp., \$125.00 (HB).

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In the 7 years since the publication of the first edition of *The Handbook of Clinical Neuropsychology*, the field of neuropsychology has evolved significantly in some areas and remained essentially unchanged in others. With the original *Handbook of Clinical Neuropsychology*, the editors undertook the difficult task of providing a comprehensive but accessible text to serve as an introduction to neuropsychology for a wide audience. This audience included both neuropsychologists of varying experience and knowledge as well as a spectrum of other health professionals. This second edition strives to meet these same goals, with significant updates in several key areas.

It would be best to begin this review by clarifying that this updated edition is not a traditional “handbook” by any measure of the term. First, it is certainly not “a book capable of being conveniently carried as a ready reference” (Miriam-Webster, 2008). Weighing in at just under four pounds, this is not a book one leaves in a briefcase without being keenly aware of its presence. Second, and clearly related, this tome is not a “concise reference book covering a particular subject” (Miriam Webster, 2008). With 43 chapters spanning 840 pages of text (894 with full index and references) “concise” is certainly a misnomer. So if it is not a handbook, just what is this work and where does it fit in the ever-expanding shelf of neuropsychology texts?

One of the strengths of this text is its impressive roster of authors. There is a broadness of perspective and citation of literature that one does not see in many texts authored solely by Americans. The editors clearly strived for consistency in format in each of the chapters, with varying levels of success. However, this is another strength of the text in that, where needed, the style of a chapter was altered to best suit its topic.

The book is organized into 10 sections: *Historical Context*, *Methodological Issues*, *Neuropsychological Impairments*, *Developmental and Paediatric Neuropsychology*, *Neuropharmacology*, *Underlying Medical Disorders*, *Neuropsychiatric Conditions*, *Forensic Neuropsychology*, *Functional Neuroanatomy*, *Clinical Context and Resources*.

In *Historical Context*, the editors provide their views of the past, present, and future of neuropsychology. Their brief and

selective overview of key historical figures and achievements is a quick but somewhat dry read. However, their musings on the current and potential future of neuropsychology serve as a vivid reminder of the road still to be traveled. It is difficult to disagree with their predictions of even greater expansion of neuropsychology into the realm of psychiatric disorders and the burgeoning field of functional imaging research. They also appropriately remind us of the work to be done in making distinctions between “impairment,” “disability,” and “handicap” as well as the dire need for increased ecological validity for our field.

The section on *Methodological Issues* provides a cursory discussion of what constitutes an “evaluation” in a quite basic format that serves as a broad overview for the novice or the non-neuropsychology health professional. In contrast, the subsequent chapter on statistical “foundations” provides a technically advanced discussion of potentially applicable statistical terminology normally covered over a series of graduate-level statistics courses. The final chapter of this section, *Approaches to Cognitive Rehabilitation*, is an excellent overview that seemed to find a better balance between an explanation of foundational concepts and the empirical research.

Section 3, *Neuropsychological Impairments*, features 19 chapters that form the true meat of the book. The chapters are skillfully set up with an assessment chapter preceding a treatment chapter of a similar domain, rather than attempting to integrate all of this material into single chapters. I found this a particularly useful format for accessing specific treatment and/or assessment-focused information. The assessment chapters all include references to standardized and readily available measures and are generally organized in a similar format. The treatment chapters were of particular interest in light of their consistent clarity, description of multiple treatment methodologies, and references to outcomes data.

The section on *Neuropharmacology* by Bradshaw is an excellent review of basic pharmacology and can be a handy reference resource on a variety of psychoactive medications. The content includes mode of action, therapeutic uses, pharmacokinetics, and side-effect profiles for a range of medications commonly encountered in clinical practice.

While the book as a whole has a primarily adult neuropsychology focus it does include a pediatric-focused chapter that emphasizes developmental disorders and rehabilitation issues in this population. The chapter content is unlikely to be of any significant use for the primarily pediatric neuropsychologist but does contain some useful data for the adult-focused neuropsychologist and other health professionals who may encounter the occasional pediatric case. The international focus of the book results in limited reference to public education issues in the United States and/or the issues of academic accommodation for this population.

The six chapters under the heading *Underlying Medical Disorders* address the most commonly encountered acquired medical/neurological disorders seen in clinical practice—vascular disorders, traumatic brain injury, Alzheimer's and other neurodegenerative disorders, demyelinating disorders, endocrine disorders, and epilepsy. I found the chapter on endocrine disorders to be especially well written and referenced. With rates of obesity rising, a clear understanding of the potential role of endocrine disorders in neuropsychological functioning has become a core clinical competence. Absorbing the information in this chapter would be a great first step in enhancing one's competence.

Consistent with the editors' forecast of greater emphasis on neuropsychiatric conditions, a series of four chapters reviews the common presentation, appropriate clinical assessment, and rehabilitation of these disorders. A chapter specific to the rehabilitation of schizophrenia captures more than 35 years of empirical research demonstrating the clear benefits of formalized treatment on cognitive functioning in this population, and serves as an excellent model for exploring similar treatment approaches with other psychiatric conditions.

Part 8 is composed of a single chapter dedicated to *Forensic Neuropsychology* within a largely United Kingdom (UK) context but also addresses universal issues with respect to forensic practice. Neuropsychologists in the United States (and other countries outside the United Kingdom) would likely need to supplement this chapter with reference guides to laws, rules, regulations, and practice standards for their country and/or state.

The book then returns to foundational issues with a four-chapter series focused on *Functional Neuroanatomy*. The rationale for addressing the functional neuroanatomical substrates separately from the disorders of these systems (reviewed extensively in Part 3) is not clear. However, it seems likely to be in part due to the lack of full overlap between the existing pathophysiological and neuroanatomical data for various cognitive constructs and the newly evolving technology and techniques becoming available. It will be interesting to see how we go about adequately and effectively integrating this new information into our understanding of brain-behavior relationships and also how new understanding informs our treatments and interventions within neuropsychology.

The final three chapters include an overview of relevant clinical and laboratory studies for neuropsychologists, a discussion of the relationship of neuropsychological "deficits"

to the World Health Organization's model of illness, and a final chapter on Internet-related issues for neuropsychology. The chapter on clinical and laboratory examinations provides a concise overview of the standard neurological examination and most common neuroimaging and neurophysiological studies. Bell's updated chapter on the intersection of the Internet and neuropsychological practice makes appropriate note of the rapidly evolving nature of and reliance on information technology as part of professional practice. He makes a very good case for practitioners to take time to proactively carefully consider their Internet presence and communications as well as issues of security and data storage.

Continuity in an edited book can be an elusive goal, particularly when individual chapter authors bring different sets of expectations to their work. Some of the chapters are truly in a handbook style while others are too dense or detailed to serve as an overview or a convenient reference guide and would more appropriately be considered as graduate school textbook chapters. The book is marketed as a multidisciplinary resource for neuropsychology. However, as I read through the book it was difficult to gain a sense of the target audience for this book. Several of the chapters lack the detail in many areas to serve as a comprehensive textbook for an aspiring neuropsychologist. However, others have a level of simplicity and clarity that would be ideal for the novice and I can easily see recommending specific chapters to a student as a springboard for further learning.

At the other extreme, several chapters featured a level of complexity beyond that of a handbook and effectively serve neither as a useful overview nor as a reference source that one would ever realistically use. And this, I suppose, is the beauty of this type of work. Different readers, based on their own strengths, weaknesses, interests, and aspirations will find some chapters that they value tremendously and others that they do not. There is surely plenty here to work with.

While the clinical practice of neuropsychology has no national boundaries, the national context of one's practice (particularly with regard to the health care and legal systems) has a tremendous impact on the day-to-day application of this shared knowledge base. Some readers may find this primarily UK-centric text lacks the specific information needed for their practice (particularly with respect to forensic practice). However, in reality, practitioners rarely rely on any single handbook for all of their quick referencing. They tend to have a few handbooks nearby for specific purposes. I can say that I have already tabbed several chapters from this book as my new go-to sources and my future students can look forward to being exposed to this material.

In summary, while not really a "handbook" or a "textbook," this updated edition of *The Handbook of Neuropsychology* can be a handy addition to one's library and a valuable reference for the clinical practitioner.

REFERENCE

Handbook. 2008. In *Merriam-Webster.com*. Retrieved from <http://www.merriamwebster.com/dictionary/handbook>