

BOOK REVIEWS

An essential resource for neuropsychological evaluation of Hispanic/Latino clients

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Principles of Neuropsychological Assessment With Hispanics: Theoretical Foundations and Clinical Practice, by Antolin M. Llorente (Ed.). 2008. New York: Springer for Science and Business Media, 234 pp., \$59.95 (HB)

Reviewed by MONICA RIVERA MINDT, PH.D., *Department of Psychology and The Latin American and Latino Studies Institute, Fordham University, New York, New York, and Departments of Pathology and Psychiatry, The Mount Sinai School of Medicine, New York, New York, USA*

Principles of Neuropsychological Assessment With Hispanics: Theoretical Foundations and Clinical Practice successfully launches Springer's inaugural volume in the "Issues of Diversity in Clinical Neuropsychology" series. This volume is quite timely and clinically relevant considering that the Hispanic/Latino population is the largest and fastest growing racial/ethnic minority group in the United States (U.S. Census Bureau, 2007) and is also disproportionately impacted by numerous health and social risk factors of great import from a neuropsychological perspective (Centers for Disease Control and Prevention, 2004; Fiscella et al., 2000). The series editor (Elaine Fletcher-Janzen) is to be commended for recruiting Llorente to carry out the formidable task of inaugurating this series and integrating an extraordinarily disparate historic, epidemiological, sociocultural, and neuropsychological literature. This edited volume with eight chapters provides a comprehensive and generally unified overview of theoretical, scientific, ethical, assessment, and treatment considerations for working with Hispanic adults and children. Llorente and nine contributors critically examine the role of sociocultural factors on brain-behavior relationships among Hispanics. They tackle fundamental clinical issues, including minimal standards of competence, language, and test bias, among others. Elegant in style and covering a great depth and breadth of information, this volume offers essential information to researchers and clinicians who work with Hispanic adults and/or children.

The volume's structure is logical and cumulative. Early chapters (1–3) provide fundamental, theoretical, and scientific groundwork for later chapters concerned with assessment and treatment. In Chapter 1, Lawless, Ries, and Llorente provide an excellent theoretical and sociohistorical perspective to inform current neuropsychological research and practice with Hispanics from identifying the Kuhnian-level paradigmatic shift beginning within the field of neuropsychology to the profound contributions of Dewey, Vygotsky, and others in incorporating the role of culture within brain-

behavior conceptualizations. The reader will also benefit from well-delineated definitions of ethnicity and culture, which are necessarily nuanced, and rightly acknowledge the significant limitations of using a "pan-ethnic" term as broad as "Hispanic" to refer to such a heterogeneous population. Key issues are discussed, such as literacy, acculturation, and bilingualism. A great strength of this chapter (and throughout the volume) is the frequent and concrete discussion of relevant ethical issues as they pertain to each topic.

Chapters 2 and 3 are perhaps the most critical and informative chapters. In Chapter 2, Llorente gives a masterful overview of the U.S. Hispanic population, with fascinating reviews of demography, immigration, and occupational and residential preference trends. For instance, that Hispanics from different countries of origin demonstrate distinct immigration patterns and nonrandom residential preferences across the United States has significant implications for neuropsychological assessment. Such geographic affinity is capable of systematically modulating demographic and cultural characteristics of normative samples that include Hispanics (i.e., site selection bias) such that norms collected in the Southwest may reflect Hispanics of Mexican origin, while those in the Northeast may be more reflective of Hispanics of Caribbean origin. The result of such bias may be reduced validity of norms for different Hispanic subgroups. Consequently, Llorente provides useful recommendations for the collection of normative Hispanic samples (e.g., need for national sampling and measurement of acculturation, language fluency/bilingualism, detailed educational background). This chapter also offers a valuable section on special issues for working with unaccompanied, immigrant Hispanic children, including comment on psychological disorders, risk, and resiliency. There is little more a reader could hope for in terms of familiarizing oneself with the U.S. Hispanic population, although some updating of the demographic statistics to reflect more recent trends and greater attention to Hispanic subgroups that are more prevalent in

the United States and suffer even more disproportionately from health disparities (i.e., Puerto Ricans) would have been useful additions to this chapter.

In Chapter 3, Llorente presents a sobering examination of health-related sociocultural variables that significantly impact the U.S. Hispanic population and points to the potential influence of these variables on neuropsychological test performance. The section on socioeconomic status (SES) is particularly outstanding. Based on U.S. Census Bureau statistics, Llorente reports that 30% of Hispanic children and 24% of Hispanic adults live in poverty, and he aptly notes the impact of SES and poverty on brain development, education, quality of life, and ultimately, outcomes. The commentary on nutrition is especially salient as I imagine that most neuropsychologists would readily acknowledge the import of nutrition for normal brain development, but how many routinely inquire as to whether or not our clients have had enough to eat before their evaluation? Llorente's disturbing anecdotal observations (both domestically and abroad) remind the reader that neuropsychologists cannot assume that our clients are (nor have consistently been) adequately nourished. Llorente demonstrates his own creativity and sensitivity to this issue through "breakfast sessions," providing breakfast prior to evaluation. This chapter is replete with important information beyond the scope of this review, but the reader is encouraged to review discussion of health care, education, health disparities, occupational risk factors, religion, and stereotypes related to neuropsychological test performance, particularly for Hispanic immigrants. In addition, this chapter includes an excellent section on specific ways in which clinicians can integrate cultural issues into diagnosis and perceptions of disability.

In Chapter 4, von Thomsen, Gallup, and Llorente provide a comprehensive summary of considerations for the assessment of intellectual abilities among Hispanics. On the theoretical side, the limitations of taking a strictly *emic* or *etic* approach are examined and more sophisticated theoretical frameworks that incorporate both are discussed, including Berry's (2001) ecological framework of intellectual function. On the applied side, the authors rightly mention the seminal work of Echemendia and Harris (2004), and Echemendia et al. (1997), in evaluating U.S. neuropsychologists' practice with Hispanics, highlighting that the field is currently ill equipped to provide these services. This chapter also provides an overview of several neurocognitive measures for use with children and adults, with commentary on their utility with Hispanic clients and related cultural and linguistic considerations; the best section focuses on Hispanic children's performances. Unfortunately, a few measures were presented without comment regarding their use with Hispanics. Even if this omission were due to a lack of relevant multicultural research, acknowledgment would have been useful to highlight the needed research.

Chapter 5, by French and Llorente, reviews language, including language development, bilingualism, and language disorders. The chapter's strengths include an in-depth review

of the bilingualism/multilingualism literature and debunking of common misperceptions about bilingual and multilingual individuals, recommendations for assessing language proficiency using a "data-based" approach that includes subjective and objective measures of language proficiency and acculturation, and an emphasis on avoiding the use of interpreters and incorporating linguistic issues into both neuropsychological assessment and treatment considerations. They also direct the reader to Pontón's (2001) decision tree for determining appropriate language for evaluation of a bilingual Hispanic client. The weakness of this chapter is that it goes into great length about language disorders and related formal evaluation measures with little or no mention of how these issues pertain to Hispanic clients. Despite this, the chapter is a good resource on issues of language and bilingualism for Hispanics.

The final three chapters are dedicated to assessment- and treatment-related issues. Chapter 6, by Llorente and Weber, details theoretical and practical issues of neuropsychological assessment broadly and for Hispanic clients in particular. The hypothetical case is an effective exemplar of how linguistic and sociocultural information can be seamlessly integrated into assessment and case conceptualization. A sample report in the appendix is further illustrative. Chapter 7, by Smith, Lane, and Llorente, reviews cultural bias in test development and application and offers constructive solutions for dealing with this pernicious problem. Finally, Chapter 8, by Ries, Potter, and Llorente, is dedicated to treatment issues and offers an interesting history of rehabilitation, an informative summary of the epidemiology of traumatic brain injury and acquired brain diseases, and why Hispanics are at greater risk for such injuries and gives an exceptional overview of rehabilitation considerations and multicultural models for working with Hispanic clients. With this chapter, the circle feels complete.

In summary, *Principles of Neuropsychological Assessment With Hispanics: Theoretical Foundations and Clinical Practice* is an essential reading for any neuropsychologist conducting research or clinical evaluations with Hispanic adults and/or children in the United States, and for professionals in related disciplines, as well as for graduate and postgraduate training in clinical neuropsychology. It is sincerely hoped that future volumes of the *Issues of Diversity in Clinical Neuropsychology* series will be as well written and informative as this inaugural contribution to the series.

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Bridging the gap in reading disorders: A meeting of neuroscience, cognitive science, and education

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Mind, Brain, and Education in Reading Disorders, by Kurt W. Fischer, Jane Holmes Bernstein, and Mary Helen Immordino-Yang (Eds.). 2007. New York: Cambridge University Press, 333 pp., \$96.00 (HB)

Reviewed by MARY LECAPTAIN, ED.D., ABPP-CN, *Independent Practice, Albuquerque, New Mexico, USA*

“Teaching Reading Is Rocket Science.” This is one of my favorite quotations about reading, and it is the title of an article written by Louisa C. Moats, Ed.D., for the American Federation of Teachers. It is a quote that I frequently use with parents when they ask me why some schools do not appear to know how to teach reading properly. This book addresses the complexity of reading and its instruction and also begins to address some of the difficulties inherent in the application of research on reading to an educational setting. It attempts to bridge knowledge from neuroscience, genetics, cognitive science, child development, neuropsychology, and education.

The volume is divided into four parts. The first part, *What Is Reading and What Are Reading Disorders?*, tackles the definition of reading disorders from neuroscience, genetics, and evolutionary perspectives. In the introductory chapter, Fischer, Immordino-Yang, and Waber write about the range and limits of plasticity and how they are “mitigated by different kinds of reading instruction” at different ages. In a chapter on an evolutionary perspective, Immordino-Yang and Deacon contrast the long history of spoken language with the “immature” phonologically based reading and alphabetic systems that are relatively new on the evolutionary scene. They use this as evidence to highlight how unlikely it would be to find a “single gene” for reading acquisition and to compare the “remarkably predictable and robust” nature of language acquisition with the complexity of reading acquisition. They also make an argument that will be familiar to many neuropsychologists: that dyslexia may not be a biological abnormality but rather a class of special conditions within normal variation. That is, had phonologically based reading not come onto the scene, people now classified as dyslexic might not be considered disabled.

In the second part, *Reading and the Growing Brain*, the authors draw on information from cognitive psychology, imaging studies, and developmental psychology. The plethora

of sometimes confusing information on the neural substrate of dyslexia is briefly reviewed. Pare-Blagoev opines that functional magnetic resonance imaging studies have probably contributed the most because they yield the most consistent findings in contrast to the inconsistency of other findings in areas of study such as visual processing and temporal rate processing. Galaburda and Sherman, in their chapter on genetics, posit that the anatomical variability among dyslexics may be directly related to behavioral variability.

In the third part, *Watching Children Read*, contributors review videos of children who struggle with reading. Included in an appendix are the verbatim transcripts of these children’s performances on reading and related tests as well as behavioral observations by their examiners. I found this section especially impressive and useful, as reading transcripts, while often included in educational texts on reading written for teachers and other educational professionals, are not typically included in more academic texts for neuropsychologists.

The final section, *Reading Skills in the Long Term*, addresses broader issues, including reading across the life span and the difficulties integrating conflicting research findings. Rose, a reading teacher, makes a plea for more accessible research that can be applied to schools, enjoining researchers to “join us in the trenches.” I wish she had written more. This section might have been strengthened by having a chapter written by a teacher or special education administrator explaining the obstacles involved in implementing research findings in a school system, such as responding to pressure from parents and other sources, intensive marketing of particular reading systems by textbook publishers (whether or not those systems of instruction are research based), and school district politics. I found the book’s final chapter by David Rose to be quite thought provoking. As a former neuropsychologist and founder/director of a company for