

Handbook of Clinical Child Neuropsychology, 3rd ed

edited by Cecil R. Reynolds and Elaine Fletcher-Janzen. Springer, New York, NY, 2009, 814 pages, \$159.00 (hardcover), \$89.95 (paper).

The third edition of the *Handbook of Clinical Child Neuropsychology* joins a long and well-known tradition that has had enormous impact over the years on the clinical practice of neuropsychology. Kudos go to editors Reynolds and Fletcher-Janzen, who compile an enormous amount of scientific research and clinical wisdom in this do-all handbook. In this revision, the old legacy chapters remain, with modest updating, including Nussbaum and Bunner's chapter on the Halstead-Reitan battery and Golden's chapter on the Nebraska battery. These chapters represent the history of the field, and that history is captured well on these pages. That history brings us from a time when the primary question asked of the neuropsychologist was, Is this clinical disorder "organic"? to contemporary times when assessment is linked to intervention planning, novel treatments come forth almost daily, comprehensive data systems inform both science and practice, and scientific rigor has been injected with vigor.

Welcome new and revised chapters describe where the field is going. Of course, we no longer ask whether a disorder has an organic basis, because we think in new ways about how the neural brain underlies every behavior. The question is no longer *whether*, but *how*. Likewise, we know that the developing organism interacts with the environment, so that the question is not nature or nurture, but, rather, how nature and nurture transact. The chapters on child development are particularly interesting and informative in this regard. Tramontana and colleagues cover a wide swath of terrain on the neuropsychology of child psychopathology, and they highlight important points in a crisp fashion. Bade-White and colleagues provide a particularly thoughtful treatise on theories of autism. They consider several causal hypotheses, offer a balanced review of the recent literature, and provide large chunks of new information. These chapters are worth the price of admission.

Ignored in this volume, though, are the exciting discoveries in neuroscience that have dominated the field over the past decade and have made child clinical neuropsychology one of the most dynamic and exciting disciplines in all of medicine. The innovations have been breathtaking: functional magnetic resonance imaging and related technologies, new theoretical formulations of executive function and its role in disorders of self-regulation, concepts of the primacy but also plasticity of the brain during the first several years of life, novel statistical techniques for capturing both population-level findings (such as in genome-wide association studies) and individual development (such as growth mixture modeling and hierarchical linear modeling), and, finally, the dramatic entry of new psychopharmacologic interventions that pinpoint disorders and offer a menu of options from rapid-impact to slow-release and from oral to transdermal delivery.

These innovations have brought major discoveries that are radically changing our understanding of neuropsychology. We now know that infant neglect leads to slowed brain development, as captured in MRI images. We know that adolescent cognitive development proceeds along independent lines of increased reward-seeking just after puberty that is followed only years later by enhanced self-control. In the heralded *From Neurons to Neighborhoods*, Shonkoff and Phillips brought us exciting findings about how synapses are formed in early life and pruned with development. The world of learning disabilities has been turned upside down with new assessment procedures, theories of learning "differences" rather than disabilities, and hypotheses that evolution has saved the phenomena of learning disabilities because they might well have adaptive value for the species.

Unfortunately, little of that innovation and excitement is captured in the pages of this volume. Instead, we get an updating of

traditional assessment tests. We get chapters that have titles brought forward from bygone eras, and we get much of the material that was presented in editions 1 and 2. The chapter on the neuropsychological basis of learning disabilities, one of the most vibrant topics in the field, includes 126 literature citations, but only 10 of these citations come from the 21st century. To be sure, the material in this volume is carefully written, grounded in clinical practice, and helpful to the clinician on the street. Next time, I hope we get the daring, too.

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doi:10.4088/JCP.10bk06741

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