adverse impact of high blood pressure on cognition, the authors present research demonstrating that hypotension can also result in dysfunction, most likely the result of reduced cerebral perfusion. The authors present an interesting study demonstrating that increases in blood pressure in patients with chronic hypotension are associated with improvements in cerebral blood flow and cognitive performance (Duschek, Hadjamu, & Schandry, 2007). The remaining chapters in Part II discuss the effects of the metabolic syndrome, cardiac surgery, and heart failure on neuropsychological outcomes. Taylor and MacQueen (Chapter 9) deconstruct the metabolic syndrome into its components in order to understand the mechanisms by which hypertension, obesity, glucose dysregulation, and dyslipidemia each affect cognition. Browndyke and Smith (Chapter 10) review perioperative complications associated with cardiac procedures. The importance of adequate cerebral perfusion during surgery as neuroprotective against neurological insult is highlighted. The final chapter by Hoth concludes with a discussion of the relationship between heart failure and cognitive function, emphasizing the need to develop a comprehensive model that considers the interactive effects of demographic, genetic, comorbid medical conditions, and treatment effects on cognitive outcome.

Although readers may find the information highly technical at times, the chapters in Part III, *Systemic and Cerebrovascular Mechanisms Underlying VCI*, lead to an appreciation of how state-of-the-art advances in cardiac and brain imaging have elucidated not only the effects of cardiovascular disease and systemic vascular factors on brain function, but also the mechanisms that mediate these relationships. Following an overview of the causes and clinical presentation of cardioembolic stroke (Chapter 12: Duffis and Fisher), subsequent chapters describe measures for assessing cardiac performance and cerebral perfusion (Chapter 13: Irani), endothelial integrity (Chapter 14: Miller, Haynes, & Moser), arterial dysfunction (Chapter 16: Hunt), and autonomic nervous system disease (Chapter 17: Allan). Serrador and Milberg (Chapter 15) discuss the mechanisms involved in cerebral blood flow autoregulation, highlighting the importance of chronic hypoperfusion to cerebral white matter damage and both executive dysfunction and fall risk in the elderly. The chapters on structural and functional brain imaging (Chapter 18: Csapo et al.; Chapter 19: Sweet, Haley & Cohen) describe the techniques that have contributed to our understanding of the effects of subtle microvascular disease and loss of connectivity on neurocognitive performance. The final chapter by Lamar and colleagues concludes with a discussion of the relation between subcortical white matter disease and the dysexecutive syndrome, hypothesizing that a disruption of basal ganglia and thalamic gating pathways underlies this relationship. The authors emphasize the communality of such disruptions across a number of neurodegenerative disorders, including Alzheimer's disease.

In summary, *Neuropsychology and Cardiovascular Disease* offers a comprehensive review of all facets of CVD, including its causes, associations with other vascular risk factors, delineation of these effects on brain functioning, and treatment approaches. As a result, the volume will be extremely useful for neuropsychologists interested in understanding the mechanisms by which CVD affects cognitive and emotional functioning.

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Developmental Social Neuroscience Is a Neuropsychological Function, too!

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Handbook of Developmental Social Neuroscience. Michelle DeHaan and Megan Gunnar (Eds.). (2010). New York: The Guilford Press, 558 pp., $85.00 (HB).

Reviewed by Amy K. Heffelfinger, Ph.D. ABPP-CN, *Department of Neurology, Division of Neuropsychology, Medical College of Wisconsin Clinics at Froedtert, Milwaukee, Wisconsin, USA.*

The *Handbook of Developmental Social Neuroscience* is a comprehensive collection of chapters written by leading researchers in the area of the development of social neuroscience summarizing the explosion of research in "the investigation of how social and biological factors interact during development." This book consists of 25 chapters in six sections. It is particularly wide-ranging and most chapters have an important role in the volume, although some overlap in information is present. The first chapter provides a thorough description of the history of social neuroscience and why it is important to study development. The Introduction by de Haan and Gunnar alone is a first-rate summary of both this volume's collection of chapters as well as of the extant research in developmental social neuroscience. Section II,

Methodological and Biological Background, provides a detailed explanation of methodology, issues involved in researching development in social neuroscience, and a comprehensive summary of the neuroanatomy of the developing social brain. Section III, *Perceiving and Communicating with Others*, includes eight chapters on perception of social information and communication, including face processing, perception of eye gaze, emotion, imitation, adolescent mentalizing, development of communication, and the evolutionary origins of social communication. Section IV, *Relationships*, focuses on relationships and social development including attachment, mothering, and romantic relationships. In Section V, *Regulatory Systems: Motivation and Emotion*, four chapters focus on the development of regulatory systems including temperament, reward systems, neurobiology of attachment, and social decision-making. The final Section VI, *Perspectives on Psychopathology*, includes six chapters on adolescent depression, development and neural bases of psychopathology, autism, genetic syndromes, international adoptions, and early abuse and neglect.

For developmental and pediatric neuropsychologists, the research reviews contained in this book are important to understand and consider in our research or clinical work. Clearly, social perception and functioning develops interactively with and parallel to attention, sensory, motor, visual-spatial, language, and memory systems. As this volume makes clear, neuropsychology often neglects quantitative assessment of emotional and social processing and functioning in assessments. This will likely need to change if the intent is to conduct comprehensive and meaningful research in developmental neuropsychology. Important risk factors for poor social development that should be addressed clinically or considered in research are covered in this volume, and the reader is strongly encouraged to use "hot" executive measures in assessments, including of emotional regulation, affect perception, and theory of mind.

For those who are not familiar with the research field of developmental neuroscience, Drs. DeHaan and Gunnar are thoughtful, well published, and collaborative investigators who present us with a book that has many strengths. The organization of this volume is nearly flawless and the authors assembled include experts in their respective topic areas. As is often the case with comprehensive, invited volumes, one of the downsides is that some overlap in information is present across the chapters. The upside to this, however, is that each chapter is like a stand-alone literature review paper summarizing the research as well as the authors' views on what is important to know right now, what are the limitations, and what research is essential to move that area along.

I note a few chapters that should be highlighted as likely of particular interest for pediatric neuropsychologists. Chapter 3, *Neuroanatomy of the Developing Social Brain*, by Payne and Bachevalier provides an easy to read and clear summary of which neural systems are involved in mediating the development of social skills. Chapter 6 by deHaan and Metheson, *The Development and Neural Bases of Processing Emotion*, Chapter 8 by Decety and Meyer, *Imitation as a Stepping Stone to Empathy*, and Chapter 10 by Mills and Conboy, *Early Communicative Development and the Social Brain,* made me think intensely about how to consider these issues in assessing infants and preschoolers. Chapter 9 by Choudhury, Charman, and Blakemore, *Mentalizing and Development during Adolescence,* and Chapter 20 by Pine, *A Social Neuroscience Approach to Adolescent Depression*, emphasized the importance of considering social development and its impact on depression in all adolescent research and assessment. Finally, each of the chapters summarizing the literature on social neuroscience of psychopathology was particularly informative.

Handbook of Developmental Social Neuroscience is highly recommended for use as a comprehensive summary of a new and important field in developmental cognitive neuroscience. This volume will serve as an important reference book for pediatric neuropsychologists doing research or clinical work in early-life developmental areas. This would make an excellent textbook for graduate studies and post-doctoral studies in developmental neuroscience and pediatric neuropsychology. Because of the fast progression of research in these areas, the first edition of this book is likely to become a classic, with further additions hopefully continuing to summarize this important and exciting field. In summary, I would highly recommend this book to any professional involved in research or clinical practice related to early development of neuropsychological functions.

Demystifying Emotion

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Handbook of Emotions, Third Edition. Michael Lewis, Jeannette M. Haviland-Jones and Lisa Feldman Barrett (Eds.). (2008). New York: The Guilford Press, 848 pp., $95.00 (HB).

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The definition of emotion was once thought to be unfathomable, ethereal, and ineffable and, thus, an inappropriate topic for scientific study. *Handbook of Emotions*, *Third Edition* represents a solid compilation of key interdisciplinary research