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978-0-521-88976-6 — Executive Function and Dysfunction: Identification, Assessment and Treatment

Edited by Scott J. Hunter , Elizabeth P. Sparrow

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Identification, Assessment and Treatment

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Editor biographies

Scott J. Hunter obtained his PhD in Clinical and Developmental Psychology from the University of Illinois at Chicago, and completed a postdoctoral residency in Pediatric Neuropsychology and Developmental Disabilities at the University of Rochester. He is Associate Professor of Psychiatry and Behavioral Neuroscience, and Pediatrics, and Director of Neuropsychology at the University of Chicago. He serves on the editorial board of the journal *Behavioral Sciences* and is a reviewer for a number of additional peer-reviewed professional journals. Dr. Hunter's primary research concerns the identification of trajectories of attention and executive function development in youth with neurodevelopmental disorders and medical illness (epilepsy, cancer, neurofibromatosis, HIV/AIDS), and the impact of sociocultural and environmental risk factors (e.g., homelessness) on executive and regulatory development. He is co-editor, with Jacobus Donders, PhD, of *Pediatric Neuropsychological Intervention* (2007) and *Principles and Practice of Lifespan Developmental Neuropsychology* (2010), both published by Cambridge University Press.

Elizabeth P. Sparrow obtained her PhD in Clinical Psychology with a specialization in Neuropsychology from Washington University in St. Louis. She completed a postdoctoral residency in Pediatric Neuropsychology at Johns Hopkins School of Medicine/Kennedy Krieger Institute. She is Director of Sparrow Neuropsychology in Raleigh, NC and Neuropsychology Consultant for the North Carolina State University Psychoeducational Clinic. She serves on the editorial board of the *Journal of Attention Disorders* and is a guest reviewer for other peer-reviewed professional journals. Dr. Sparrow's research focuses on assessment and intervention for children, adolescents, and young adults who present with executive deficits. She is a co-author of the Conners' Adult ADHD Rating Scale and served as the clinical consultant for development of the Conners 3rd Edn, the Conners Comprehensive Behavior Rating Scales, and the Conners Early Childhood. Her first book, *The Essentials of Conners Behavior Assessments*, was published in 2010. She co-authored the *Guide to Assessment Scales in Attention-Deficit/Hyperactivity Disorder, 2nd Edn*. She has contributed chapters to several volumes, presented at numerous conferences, and co-authored publications in peer-reviewed journals. In her clinical work, she helps other professionals and parents better understand their children who have executive dysfunction.

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Preface

Executive functioning (EF) is a complex construct with many facets, served by an intricate neurobiologic network that develops over the course of childhood, adolescence, and early adulthood. The behavioral manifestations of EF and executive dysfunction (EdF) go through periods of rapid growth during this same time. This book reviews the research literature on the development and neurobiology of EF. Conceptual assessment issues are discussed, with a focus on key elements of identifying EF/EdF in specific clinical conditions such as Disruptive Behavior Disorders (DBD), autism spectrum disorders (ASDs), learning disorders (LD), mood and anxiety disorders, seizure disorders, and human immunodeficiency virus (HIV), among others, including test performance, neuro-imaging, and clinical presentation. Several chapters are devoted to practical aspects of EdF, including research-based treatment strategies, educational implications, forensic cautions, and intervention resources.

The text is divided into three sections. Section I provides a foundation by reviewing models of EF, neuropsychological and neurobiological development, and key assessment considerations. Section II presents critical information on how EF deficits present in pediatric neurodevelopmental and acquired disorders. The book closes with a section addressing applications of the research, including remediation and educational implications of EF deficits, cautions for forensic neuropsychologists, and reflections on the volume as a whole.

This book is essential reading for medical, psychological, and educational professionals who work with children and adolescents in clinical and educational settings.

Acknowledgments

I would like to first acknowledge the trainees and colleagues who have collaborated with me, over the past 13 years, in an exploration of the ideas being presented in this volume, as part of the Pediatric Clinical Neurosciences Seminar at the University of Chicago. It is through this yearly course that I have been challenged to think deeply and critically about executive functioning, and to consider the trajectories of its development. I also thank my partner Richard Renfro, fellow child psychologist and behind-the-scenes supporter, for listening to and encouraging my efforts with this book. Finally, I deeply thank Elizabeth Sparrow, for agreeing to take the journey of writing and editing this book with me.

I dedicate this book to my patients and their families, for their trust and continued encouragement to better understand executive functioning and its variabilities.

Scott J. Hunter, PhD, 2012

I would like to thank and acknowledge my mentors. Each of them taught me to recognize and appreciate executive functioning in educational, clinical, and research settings, and to consider executive deficits whether tutoring, assessing, or conducting therapy. Thanks also to the children, adolescents, and young adults (and their families) with whom I have worked – your stories and successes have driven me to continue in this field. My valued colleagues and friends have provided much needed support to complete this volume. I very much appreciate the students and trainees who ask excellent questions, inspiring me to find better ways to explain these concepts. Finally, thank you to Scott Hunter for inviting me to share in this project.

I dedicate this volume to my family, who encouraged me to pursue this endeavor, especially my 91-year-old grandmother whose executive functions are still phenomenal.

Elizabeth P. Sparrow, PhD, 2012