



Smart **but** Stuck

Emotions in Teens
and Adults with ADHD

Thomas E. Brown, Ph.D.

More Praise for *Smart but Stuck*

“*Smart but Stuck* will help you get unstuck! Drawing upon a lifetime of clinical experience, Tom Brown once again strikes gold in this practical, authoritative, and, above all, helpful book. No matter where you are in your journey to success, if you have ADHD this book will help to speed you on your way. I could not recommend it more highly.”

— **Edward (Ned) Hallowell, M.D.**, author, *Driven to Distraction* and *Delivered from Distraction*

“This is an exceptionally important book for those coping with ADHD and family members who care about them. It addresses a much overlooked component of the disorder — the importance of emotions. Clearly written, rich in detail, and full of helpful advice, this book will be beneficial to anyone with ADHD and to those who struggle to live with, understand, and help them.”

— **Russell A. Barkley, Ph.D.**, clinical professor, psychiatry and pediatrics, Medical University of South Carolina; author, *Taking Charge of ADHD* and *Taking Charge of Adult ADHD*

“This book, reflecting Dr. Brown’s 35 years of clinical practice combined with the latest findings from affective neuroscience, is a must-read for anyone who is interested in ADHD.”

— **James J. Gross, Ph.D.**, professor, psychology, Stanford University; editor, *Handbook of Emotion Regulation*

“Dr. Brown introduces a forgotten piece in the life of those suffering from ADHD: the role of emotions. He provides an integrative and easy-to-understand view of how executive functioning impairments interact with emotional control in ADHD. He also offers thoughtful strategies to minimize the impact of these impairments.”

— **Luis Augusto Rohde, M.D., Ph.D.**, president, World Federation of ADHD; professor, psychiatry, Federal University of Rio Grande do Sul, Brazil

“These engaging vignettes vividly bring to life emotional difficulties that, even for very intelligent teens and adults, can lead to frustration and failure in efforts to overcome their deficits in attention, organization, and motivation. Here Tom Brown combines a reader-friendly summary of relevant research with his clinical expertise in helping people with ADHD to get on track to success.”

— **Mina K. Dulcan, M.D.**, professor of psychiatry, behavioral sciences and pediatrics, Ann & Robert H. Lurie Children’s Hospital of Chicago and Northwestern University Feinberg School of Medicine

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emotions in teens and adults
with ADHD

thomas e. brown, ph.d.

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Published by Jossey-Bass
A Wiley Brand
One Montgomery Street, Suite 1200, San Francisco, CA 94104-4594 — www.josseybass.com

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Library of Congress Cataloging-in-Publication Data has been applied for and is on file with the Library of Congress.

ISBN 978-1-118-27928-1 (cloth); ISBN 978-1-118-41975-5 (ebk); ISBN 978-1-118-42176-5 (ebk)

Printed in the United States of America
FIRST EDITION
HB Printing 10 9 8 7 6 5 4 3 2 1

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—14-year-old high school student

10 Matt 185

“When I was in high school, I had friends. When I got to college, I didn’t know anyone and was too shy to make friends. I just kept to myself and almost never left my room except to go to class or get meals. I got pretty depressed, and after a while my sleep got messed up. I’ve stopped going to some of my classes.”

—18-year-old college student

11 Lois 203

“I teach special education, so I’ve taught a lot of kids with ADHD, but never realized I have it. I have trouble organizing my stuff and finishing paperwork on time, and sometimes I’m forgetful. I got through college and I’ve been teaching for ten years, but over the past year I’ve had a harder time, and those ADHD problems are getting worse—especially since difficulties at home began.”

—37-year-old school teacher

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“If I don’t finish four papers this month, I’m going to be put on probation at school. I just can’t get myself to finish. I’ve had this problem for a long time, but now it’s worse than ever before. I’ve done the research for most of my papers, but I can’t get myself past the first paragraph in any one of them. I’m stuck!”

—20-year-old college student

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How do the emotions of these teens and adults affect their education, work, family interactions, and social relationships? What treatments are useful for helping people with ADHD get unstuck from these difficulties? What can family members, friends, teachers, clinicians, and counselors do to help?

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the author

Thomas E. Brown, Ph.D., is a clinical psychologist, assistant clinical professor of psychiatry at Yale University School of Medicine, and associate director of the Yale Clinic for Attention and Related Disorders. His award-winning book *Attention Deficit Disorder: The Unfocused Mind in Children and Adults* (Yale University Press, 2005) has been published in seven languages. He developed the Brown Attention Deficit Disorder Scales (PsychCorp/Pearson) and has published numerous articles in professional journals. His past books include *ADHD Comorbidities: Handbook of ADHD Complications in Children and Adults* (American Psychiatric Press, 2009) and *A New Understanding of ADHD in Children and Adults: Executive Function Impairments* (Routledge, 2013). To learn more, go to www.drthomasebrown.com.

acknowledgments

Impetus for this book was sparked in a conversation I had several years ago with my son, Dave, while we were hiking a small mountain called Sleeping Giant. He asked what I considered to be the biggest missing piece in the current understanding of ADHD. My answer was “the importance of emotions.” After I explained what I meant, Dave insisted: “You’ve got to make that your next book, and you have to explain it with real-life stories of patients so people will catch on!” Dave read and offered helpful comments on my initial draft of each chapter. I am deeply grateful for his nudging encouragement and love.

My administrative assistant, Lisa Dziuba, and my research assistant, Ryan Kennedy, have both contributed by assisting with countless details of organizing, checking, and preparing the manuscript as well as by helping me remain organized throughout the process of working on this project while I was also attending each day to a full schedule of caring for patients.

I am grateful also for the continuing love and support of Bobbie, my beloved wife, the light of my life. Thanks too to Liza, Abel, Nancy, Noah, and Simone, for their love, enthusiasm, and encouragement, which enrich my life.

Strong encouragement and much helpful guidance to render this book more readable have been provided generously by Margie McAneny, my editor at Jossey-Bass/Wiley. Thanks also to

Tracy Gallagher for her assistance with permissions, Pat Stacey for additional helpful edits and suggestions, Michele Jones for her very careful copyediting, and Joanne Clapp Fullagar for thoughtfully guiding the book through production.

Above all, I am deeply grateful to my patients — the children, adolescents, and adults who have trusted me with exploring their stories and have helped me learn of the subtle complexities of ADHD and the multiple intertwined and often conflicted emotions that can get any of us stuck — and can keep all of us going.

Thomas E. Brown

January 2014

introduction

All information processing is emotional . . . emotion is the energy level that drives, organizes, amplifies and attenuates cognitive activity.

—KENNETH DODGE, NEUROSCIENTIST

Although the scientific understanding of ADHD has changed dramatically over the past decade, most people affected by this disorder—and many who diagnose and treat them—have not yet had the opportunity to gain a clear, up-to-date understanding of this complex condition. As you’ll read in the chapters that follow, ADHD is not a simple problem of misbehavior, lack of willpower, or inability to focus attention. In this collection of true stories about extremely bright teenagers and adults, you’ll find multiple examples of the ways that ADHD can cause even very intelligent individuals to experience chronic frustration and failure, which gets them “stuck” in their schooling or work and many other aspects of daily life. Fortunately, in most cases it’s possible for a person with ADHD to get unstuck, and in these pages you’ll find numerous examples showing how effective treatment has helped those suffering from ADHD to get back on track.

NOTE: Throughout this book, the term *ADHD* is used to refer to the disorder currently understood as Attention Deficit/Hyperactivity Disorder (ADHD) and/or Attention Deficit Disorder (ADD).


Clinical and neuroscience research has revealed that ADHD is essentially a complex set of dynamically interacting impairments of the brain's management system, otherwise known as its "executive functions." These functions involve a number of critical operations of the brain, including the abilities to

- Get organized and get started on tasks
- Focus on tasks and shift focus from one task to another when needed
- Regulate sleep and alertness, sustain effort, and process information efficiently
- Manage frustration and modulate emotions
- Utilize working memory and access recall
- Monitor and self-regulate action

Everyone has trouble with these functions from time to time, but people with ADHD have much more difficulty with them than do their same-age peers. (I offer more detailed descriptions of these various executive functions in Chapter One.)

- the missing link: emotions

Despite progress made in ADHD research, one element has been lacking in most current descriptions of the disorder: the critical role played by emotions in every one of the executive functions. This book describes that missing piece. In 1996, neuroscientist Joseph LeDoux published *The Emotional Brain*, a book highlighting evidence of the central importance of emotion in the brain's cognitive functioning. He emphasized that emotions—mostly unconscious emotions—are powerful and critically important motivators of human thought and actions.¹ This understanding of the essential role of emotion in all aspects of human behavior has not yet been integrated into current thinking about ADHD.




We must recognize the critical role of emotions, both positive and negative, in initiating and prioritizing tasks, sustaining or shifting interest and effort, holding thoughts in active memory, and choosing to engage in or avoid a task or situation.

To fully understand the role of emotions in ADHD, we must not only recognize that those with the disorder often have a hard time managing how they express their emotions but also acknowledge the critical role that emotions, both positive and negative, play in the executive functions: initiating and prioritizing tasks, sustaining or shifting interest and effort, holding thoughts in active memory, choosing to engage in or avoid a task or situation. As was observed by neuroscientist Kenneth Dodge, “All information processing is emotional . . . emotion is the energy level that drives, organizes, amplifies and attenuates cognitive activity.”²

Emotions—sometimes conscious, more often unconscious—serve to motivate cognitive activity that shapes a person’s experience and action. For those with ADHD, chronic problems with recognizing and responding to various emotions tend to be a primary factor in their difficulties with managing daily life.

The stories in this book highlight the role that various emotions, positive and negative, played in the struggles of some of my patients with ADHD. Some readers of these stories might think, “Oh, this is a person with ADHD and several other disorders— anxiety, depression, or OCD. Their emotional struggles are just part of those additional disorders, not ADHD.” My response is that ADHD is not one silo of cognitive problems with another silo of emotional difficulties beside it. Problems with responding to and managing emotions are intimately, dynamically, and inextricably involved in ADHD.




Problems with responding to and managing emotions are intimately, dynamically, and inextricably involved in ADHD.

- learning from patients and research

I am a clinical psychologist. For more than thirty-five years, I have spent most of my working hours talking with and listening to children, adolescents, and adults, most seeking help for problems related to ADHD. Many also have had additional difficulties with other problems involving emotions, learning, or behavior. My primary source of learning about ADHD has been the countless conversations with these patients— young and old alike—who shared with me ongoing stories of their struggles to recognize and overcome their attention impairments and to extricate themselves from feeling stuck in patterns of demoralizing frustration and failure. The stories in this book are based on my notes from conversations with some of these patients. All have been modified to protect the privacy of those involved, but the essential details of all are true.

Recently expanding research in neuroscience, psychology, and psychiatry has helped explain many puzzling facts reported by patients with ADHD, such as how they can focus and work energetically on a few favored activities, but simply can't get started or sustain enough effort for other activities that they know are important and want to do. In these pages, true stories of patients are intermingled with accessible explanations of research that will help you better understand each patient's struggles and the fuller nature of the relationship between ADHD and emotions.

One of my special interests over the years has been adolescents and adults who are especially bright. They have taught me that being smart is no protection from attention impairments. Not only is it possible for people with a high IQ to suffer from ADHD, but it's likely that they'll suffer longer without adequate support or treatment because the people in their lives assume, quite mistakenly, that anyone who is really smart can't suffer from ADHD.



Not only is it possible for people with a high IQ to suffer from ADHD, but it's likely that they'll suffer longer without adequate support or treatment because the people in their lives assume, quite mistakenly, that anyone who is really smart can't suffer from ADHD.

The patients I write about in this book are all extremely bright. They scored within the top 9 percent of the population on IQ tests, but they were stuck. They sought treatment because they were unable to get themselves out of chronically unproductive, self-defeating patterns of emotions, thought, and action. They felt trapped in their daily dealings with their education, their job, their relationships with others, or a combination of these. Their stories illustrate the persistent difficulties those with ADHD have in managing themselves and their emotions. Some are stories of amazing successes and impressive accomplishments; others are tales of ongoing frustration and tragic disappointment. Most are a mixed bag. Yet each story illuminates the complex role that emotions play in ADHD.

- what you'll find in this book

Chapter One describes this new understanding of ADHD, drawing on the latest research findings by clinicians, researchers, and neuroscientists. Chapters Two through Twelve offer stories of real teenagers and adults with ADHD, highlighting their particular struggles with the disorder, with their emotions, and with related problems in their family or various other contexts. The final chapter summarizes some of the ways that emotions affect the life experiences of those with ADHD and what can be offered to appropriately support and treat those affected.

The stories that follow illustrate the limitations of diagnostic “pigeon-holes.” The individuals you’ll read about in these pages can’t be neatly categorized under one or several diagnoses. Each person is a unique and complex combination of interacting strengths and difficulties in each of the shifting contexts in which he or she lives. There is great diversity among people with ADHD as well as in the varied settings in which they encounter daily life.

In telling stories of these adolescents and adults, I have also shared some of my own reactions and challenges as I tried to provide the help they sought from me. Many of the stories are success stories. I share the resources and strategies that contributed to these successes. Several stories also illustrate the significant obstacles and struggles that some people with ADHD may experience.

Stories in this book also illustrate what we currently know about how ADHD changes—sometimes for the better, sometimes for the worse—as a person progresses into the increasing challenges of adolescence and adulthood. Each story describes medications and other treatments provided to these individuals to help in alleviating their ADHD impairments.

In none of these cases were medications alone sufficient to resolve the complex difficulties. For each of these patients, therapeutic success also depended on a therapeutic relationship with many therapeutic conversations. These were essential for assessing and understanding the nature and emotional complexities of his or her difficulties. The therapeutic relationship also was the vehicle for close collaboration to develop effective treatments, help the patient to make necessary changes in environment and lifestyle, repair damaged self-esteem, and work through the frustrations, stresses, and puzzlement that inevitably arise in interactions among patients, their family members, and their doctors.

The emotional conflicts and struggles these patients experience aren't unique to those with ADHD—nor are they unique to those who are exceptionally intelligent. You will probably recognize emotional pressures, conflicts, and struggles that aren't so different from your own or from those of your family and friends.

Throughout this book, I've tried to illustrate not only the weaknesses and struggles of those with ADHD and their families but also their impressive strengths and diverse talents. There is much to respect and admire in each of the people described in these pages.



ADHD and the emotional brain


Emotions, and struggles with and between various emotions, play a central role in the daily life of all children, adolescents, and adults. Emotions guide what we notice and what we ignore, what we focus on intently and what we carefully avoid. Conflicting emotions can cause us to disrupt engagement with a task we want to accomplish, or lead us repeatedly to do what we consciously intend never to do again. In many ways—sometimes recognized, sometimes not, subtly and powerfully—we are pushed and pulled by our emotions. Yet we also exercise some control over them: we try to distract ourselves from uncomfortable emotions; we choose how much we want our emotions to show in our words or actions; we talk to ourselves to try to tone down or jack up how noticeable our emotions are to others and to ourselves. We manage and are managed by the complexity of our emotions.

In my work as a clinical psychologist, I've seen that emotional struggles play an especially large role in the daily life of people with attention deficit disorders. The same chronic impairments that interfere with other aspects of their cognitive functioning also tend to interfere with their ability to manage and be adequately guided by their emotions. People with ADHD often suffer chronic difficulties in responding to and sustaining emotions that motivate them for important tasks.

Most people with ADHD experience the same frustrations, fears, sadness, pride, shame, excitement, and so on that spontaneously arise in everyone else in various situations. What is different is the chronic difficulty most people with this disorder experience in managing and responding to their emotions, particularly in the many situations where emotions are mixed and conflicting. As noted earlier, stories in this book illustrate the fact that being very smart does not prevent a person from struggling with these emotional problems, nor does it prevent having ADHD.

This book highlights the idea that emotions are linked to the brain. Often people think of emotion as distinct from the brain, as being “from the heart” or “in the gut,” but these are metaphors that serve simply to suggest that emotions come from the depth of the person. The actual source of emotions is the brain.

The difficulties that people with ADHD have with emotions are similar to the problems they often have in prioritizing tasks, shifting focus, and utilizing working memory. While cleaning a room, they may get interested in some photos they pick up, soon becoming completely diverted from the job they had begun. While searching for some specific information online, they may notice a web page that draws them off the search they started and into a protracted investigation of something totally unrelated, derailing their original task. They may abandon a task they find boring, overlooking the fact that adequate and timely completion of this task is essential to gaining something they really want, and that failure to complete the task will inevitably bite them with a painful payback.



People with ADHD report that momentary emotion often gobbles up all the space in their head, as a computer virus can gobble up all the space on a hard drive, crowding out other important feelings and thoughts.

In a similar way, many people with ADHD tend to get quickly flooded with frustration, enthusiasm, anger, affection, worry, boredom, discouragement, or other emotions, not keeping in mind and

responding to related emotions also important to them. They may vent their momentary anger on a friend or family member with hurtful intensity that does not take into account that this is a person whom they love and do not want to hurt. People with ADHD report that momentary emotion often gobbles up all the space in their head, as a computer virus can gobble up all the space on a hard drive, crowding out other important feelings and thoughts.

- “attentional bias”

Many with ADHD also report that they tend to have a lot of difficulty with *attentional bias*. They tend to be particularly alert and quick to notice any comments or actions that fit with the emotions that preoccupy them, often without paying much attention to the context or to other information that might provide a useful different view. Some seem to be constantly alert for signs of things to worry about; others are excessively alert for any signs of potential frustration or discouragement. They become too easily immersed in one especially salient emotion and tend to have chronic problems in shifting their focus to keep in mind other aspects of the situation that might call for a very different response. For example, someone hearing just a slight uncertainty in a coworker’s reaction to a suggestion may interpret this as stubborn disapproval and quickly start arguing for his or her idea without listening adequately to understand the coworker’s actual response. Attentional bias may fuel feelings of depression, anxiety, or argumentativeness or cause the person to lose interest in a particular goal.¹

Watching Basketball Through a Telescope

For those with ADHD, life can be like trying to watch a basketball game through a telescope, which allows them to see only a small fragment of the action at any specific time. Sometimes that telescope stays too long on one part of the court, missing out completely on important events occurring elsewhere at the same time. At other times, the telescope may randomly flit from one

bit of action to another, losing track of where the ball is and what various players are in a position to do. To follow what is going on in a basketball game, a person needs to be able to watch the whole court, noting movements of the ball and rapidly shifting positions of the players as they present multiple risks and opportunities in the game.

- the unacknowledged role of emotions in ADHD

Current diagnostic criteria for ADHD include no mention of problems with emotions, but those who live with this disorder and those who care for them know very well that problems with experiencing and managing emotions — interest, comfort, desire, anxiety, frustration, worry, disappointment, hurt, excitement, anger, pride, sadness, and shame, in various blends and sequences — play a critical role in their daily difficulties. Sometimes people with ADHD are unable to manage expression of these emotions; at other times, they have trouble experiencing and clearly recognizing emotions in themselves that can guide them in social interactions and fuel behaviors important for achieving longer-term goals.

Researchers have recently been challenging the omission of problems with emotional regulation in current diagnostic criteria for ADHD. For example, a team of European researchers studied more than a thousand children with ADHD and found that almost 75 percent demonstrated significantly more intense and frequent problems with low frustration tolerance, irritability, hot temper, sadness, and sudden mood shifts than non-ADHD children of the same age.²

A longitudinal study of over a hundred hyperactive children and a matched comparison group followed into young adulthood showed that those whose ADHD persisted into adulthood continued to have significantly more difficulties with low frustration tolerance,

impatience, irritability, hot temper, and emotional excitability than the comparison group.

Such mood problems tend to persist into adulthood for many people with ADHD. A longitudinal study of over a hundred hyperactive children and a matched comparison group followed into young adulthood showed that those whose ADHD persisted into adulthood continued to have significantly more difficulties with low frustration tolerance, impatience, irritability, hot temper, and emotional excitability than the comparison group. Another study demonstrated that deficient self-regulation of these negative feelings is found in a subgroup of adults with ADHD, and also that this type of emotional dysregulation tends to occur with greater frequency among siblings of those affected adults.³

These recent studies have explored the role of emotions in ADHD, but most dealt exclusively with the combined type of ADHD, excluding those without hyperactive symptoms. Also, these studies have been focused primarily on difficulties in controlling negative emotions such as irritability and anger; they have neglected the role of emotions that are central to positive motivations, such as interest, enthusiasm, desire, pride, and pleasure. These studies also have not adequately explored anxiety, discouragement, stress, and hopelessness, which often compromise a person's motivation to act.


In a comprehensive review article, Russell Barkley, a leading researcher, has argued that "deficient emotional self-regulation" should be included in diagnostic criteria for ADHD and considered a core component of the disorder, though only for the combined subtype. His emphasis is on insufficient control of more negative, disruptive emotions:

ADHD creates a state in which the normal emotion-generating properties of the limbic system, and particularly the anger, frustration, and aggression-generating properties of the amygdala, are inadequately regulated by higher cortical functions. (p. 10)⁴

- the problem of ignition and motivation

Thus far, researchers and clinicians have focused too much on how people with ADHD demonstrate problems in *putting the brakes* on expression of emotions. There hasn't been sufficient attention given to the emotional problems with *ignition*—chronic difficulties with getting started on necessary tasks and staying motivated to finish what needs to be done.

An important clue to understanding these problems with ignition in ADHD can be found in the most puzzling and frustrating fact about children, adolescents, and adults with attention deficit disorders: their symptoms are not consistent. A person's ADHD symptoms vary considerably from one situation to another, depending on the task or context in which he or she is operating and on the incentives involved. Despite their chronic problems with organizing themselves, getting started on tasks, and staying focused, all people with ADHD have a few activities in which they have no such problems. If you watch them while they engage in those activities, you would swear that they have no problem with attention at all.⁵



Thus far, researchers and clinicians have focused too much on how people with ADHD demonstrate problems in *putting the brakes* on expression of emotions. There hasn't been sufficient attention given to the emotional problems with *ignition*—chronic difficulties with getting started on necessary tasks and staying motivated to finish what needs to be done.

Typically each person with ADHD, young or old, is able to focus very well for a few activities in which he or she has strong personal interest. This might be playing a sport or video games, drawing or painting, repairing a car, playing music, or using Facebook. Yet for virtually all other activities and tasks, people with ADHD have extreme difficulty in achieving and maintaining focus, with the possible exception of

situations where they expect a very immediate unpleasant consequence if they don't attend to the task at hand. If you ask a person with ADHD why he can focus for this and not for that, he will usually respond along the following lines:

I focus well on things that interest me, but if it's not something that really interests me, I just can't keep my focus. If I'm really freaked that something very unpleasant is going to happen quickly unless I take care of this right here, right now, that may help me focus for a while. But unless it feels like there is a gun to my head, I really have to be interested.

Because they can focus well on tasks that interest them, yet often focus very poorly or inconsistently on almost anything else, people with ADHD are often accused of lacking willpower. ADHD clearly looks like a problem with willpower, but it is not. One patient called his chronic difficulty with attaining and sustaining focus "erectile dysfunction of the mind." He said,

If the task is something that really interests me, I can get "up" for it and I can perform. But if it's not a task that "turns me on," I can't get up for it, and I can't perform. Doesn't matter how much I say to myself, "I need to, I ought to, I should." I can't make it happen. It's just not a willpower kind of thing.

- immediate or delayed "payoffs" in the ADHD brain

Underlying this "can focus for this, but not for that" problem is an important problem with emotion in ADHD: difficulty in mobilizing and sustaining interest for activities that don't offer an immediate "payoff" of pleasure or relief. Most of us may not think of interest as an emotion, but it is in fact a critically important positive emotion. "Passionate interest" represents an intense level of sustained emotional engagement with a task or person, but interest occurs in varying degrees and with varying levels of persistence. Interest reflects the degree of a person's motivation and emotional engagement with a task or relationship. Psychologists

James Gross and Ross Thompson have emphasized that “emotions not only make us feel something, they make us feel like *doing* something.”⁶

PET imaging studies have demonstrated that chemicals which activate reward-recognizing circuits in the brain tend to bind on significantly fewer receptor sites in people with ADHD than do those in a healthy comparison group.

Emotions motivate action—action to engage or action to avoid. Many people with untreated or inadequately treated ADHD can readily mobilize interest only for activities offering very immediate gratification; they tend to have severe difficulty in activating and sustaining effort for tasks that offer rewards only over the longer term.

Problems of activating and sustaining motivation and effort for necessary tasks—lack of sufficient interest—may have to do with how people with ADHD are “wired”: they may be less sensitive to potential rewards, as opposed to immediately available rewards, than are others of the same age.

PET imaging studies have demonstrated that chemicals which activate reward-recognizing circuits in the brain tend to bind on significantly fewer receptor sites in people with ADHD than do those in a healthy comparison group.⁷ These and other imaging studies may help explain why people with ADHD tend to be less able than their peers to anticipate pleasure or register satisfaction with tasks for which the payoff is delayed. An important effect is that often they have great difficulty in activating themselves to get started on tasks that are not especially interesting to them and in sustaining motivation to complete tasks for which the rewards are not imminently available. I discuss implications of this research in Chapter Two.

Problems in activating and sustaining interest (focus) and effort for tasks are two of the multiple cognitive functions included in the complex syndrome currently identified as ADHD. As I noted in the Introduction,

this disorder is no longer seen as simply a problem of young children who misbehave. In fact, misbehavior is something of a red herring in the mystery of ADHD and has eclipsed the truly debilitating aspects of the disability as it often progresses to young adulthood and into middle age, bringing heartbreaking suffering, internal turmoil, and frustration in actualizing life goals. It is in fact now clear that many people with ADHD have never had significant behavioral problems, and even for those who did have such difficulties, problems with misbehavior usually tended to be among the least of their troubles. The primary problem for most individuals with ADHD, especially as they enter adolescence and adulthood, is a wide range of cognitive impairments in the management system of the brain. All of these impairments are linked to various problems with emotion.

- emotions, ADHD, and executive functions

Neuroscience is quickly changing our understanding of the neurological underpinnings of psychological phenomena. Nowhere is this research more salient than in the study of ADHD, where we need better to understand how brain functions are intimately tied to emotional experiences, feelings, and decision-making processes. Here I offer a brief review of the model of executive functions (EFs) impaired in ADHD, as well as a model for how emotional processing has a special relationship to these brain functions.

understanding executive functions

In 2005, I published the book *Attention Deficit Disorder: The Unfocused Mind in Children and Adults*. Eight years later, I updated it with *A New Understanding of ADHD in Children and Adults: Executive Function Impairments*.⁸ In those books, I described six clusters of chronic difficulties experienced by most people with ADHD. I explained how these six clusters together constitute a description of problems in the brain's management system, its executive functions. Building on my own research and the work of others, I have suggested the new working definition of ADHD shown here: