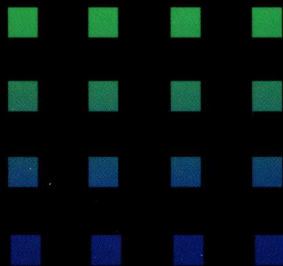
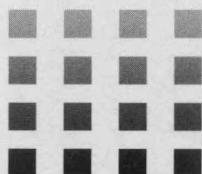


Clinical Neuropsychology of Emotion

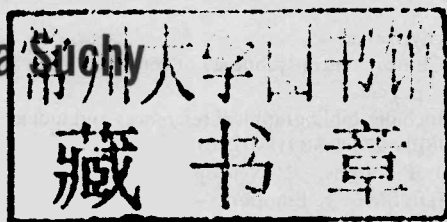


Yana Suchy

Clinical Neuropsychology of Emotion



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CLINICAL NEUROPSYCHOLOGY OF EMOTION

*Rodičům,
s láskou a vděčností*

(To my parents, with love and gratitude)

About the Author

Yana Suchy, PhD, is Associate Professor of Psychology and Clinical Neuropsychology Program Director in the Department of Psychology at the University of Utah. Her professional responsibilities include graduate training, research, and clinical neuropsychological practice. Dr. Suchy's research focuses on understanding the interface among executive, affective, and motor processes, with the long-term goal of developing new methods for detecting subtle, preclinical deficits in executive and emotional control. In line with her research interests, she feels strongly about the need to integrate assessment of affective processes into everyday neuropsychological clinical practice. She serves on the editorial boards of the *Journal of the International Neuropsychological Society* and *The Clinical Neuropsychologist*, and as an ad hoc reviewer for a number of other journals. Dr. Suchy has published widely in a variety of peer-reviewed journals and neuropsychology textbooks and presents regularly at national and international meetings.

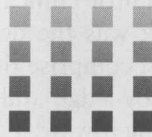
CLINICAL NEUROPSYCHOLOGY OF EMOTION

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About This Book



THE IMPETUS

Over the past 30 years, clinical neuropsychology has witnessed a tremendous growth and maturation, both as a science as a clinical profession. The handful of tests available to clinical neuropsychologists in the late 1970s and early 1980s has exploded into a broad array of theoretically and psychometrically sophisticated instruments. The 1990s, the Decade of the Brain, further propelled neuropsychology along its already impressive trajectory. Methodology for studying brain-behavior relationships has evolved well beyond the study of naturalistic human lesions and animal ablations, supplementing the older practices with modern structural and functional imaging techniques. Our understanding of cognitive domains and subdomains has also expanded: No longer is the “frontal lobe syndrome” considered a unitary construct, and the relationships among complex and overlapping processes such as mental speed, attention, and working memory are beginning to be understood. With better methods and better understanding of the brain, clinical neuropsychology has arrived as a mature and sophisticated clinical specialty.

Against the backdrop of this exponential growth, the neuropsychology of emotion represents a popular but poorly defined area that has yet

to become fully integrated into the practice of clinical neuropsychology. Casual conversations with clinical neuropsychologists will reveal many different views on the subject matter. For some, the neuropsychology of emotion represents the study of deficits in affective communication and behavioral control resulting from brain disease or brain injury. For others, the neuropsychology of emotion translates into the neuropsychology of psychopathology—that is, the study of neurocognitive profiles associated with schizophrenia, major depression, obsessive–compulsive disorder, and so on. And for others yet, the neuropsychology of emotion is synonymous with affective neuroscience, offering fascinating academic inquiries into the workings of the brain, but with little clinical applicability.

The impetus for this book was the desire to take the widely varied topics and levels of analysis that comprise the neuropsychology of emotion and extract from them the knowledge and techniques that are clinically relevant, with the hope of moving toward a clinically applicable integration (i.e., *clinical* neuropsychology of emotion) that our profession could utilize, foster, and begin to call its own.

THE AIMS

The aims of this book are fivefold: (1) to propose clinically meaningful domains of emotional processing; (2) demonstrate the clinical utility of each domain; (3) demonstrate that emotions and cognitions are much more closely intertwined than was historically thought; (4) explore the interdisciplinary future of the *clinical* neuropsychology of emotion; and (5) provide an easy reference for clinical neuropsychologists when questions about emotional processing arise. Table 1 illustrates how these aims are addressed throughout the book.

THE OVERALL ORGANIZATION

This book is organized into four parts. Part I provides a historical perspective, both on how emotions have been conceptualized since antiquity through the 20th century, and how the neuroanatomy of emotion came to be understood. Part II reviews emotional processes that comprise a single emotional event, from the initial bottom-up trigger of an emotional response (Chapter 3) through the ultimate top-down process of emotion regulation (Chapter 7). Next, Part III moves beyond the level of a single event to examine how patterns of emotional responses come together to *motivate* behavior. Lastly, Part IV looks toward the future, demonstrating the interdisciplinary relevance of clinical neuropsychology of emotion, and

TABLE 1. Where/How the Book's Aims Are Addressed

Aims	General chapter sections	Specific chapter sections	Chapters
1. Domains of emotional processing	Theoretical Background	Defining the Constructs Neuroanatomic Substrates	3–10
2. Clinical utility of each domain	Integrating Theory and Practice	Assessment Everyday Functioning Clinical Signs and Syndromes Clinical Populations	3–10
3. Relationship between emotions and cognition	Theoretical Background	Interplay with Cognition	3–12
4. Interdisciplinary future of <i>clinical neuropsychology of emotion</i>	N/A	N/A	11–12
5. Resources for clinicians	N/A	N/A	Appendices A, B, and C

forging linkages to behavioral medicine, personality theory, and human genetics.

Arguably, Parts II and III have the more immediate relevance for the practicing neuropsychologist. So as to facilitate the utility of these book portions as a reference, each chapter is organized in the same fashion, beginning with a *Theoretical Background* section and followed by a section entitled *Integrating Theory and Practice*, in which clinical syndromes, clinical populations, and various assessment implications are discussed. Appendices are provided at the end of the book, and these cross-reference populations and syndromes across all book chapters for an easy reference. Figure 1 illustrates this overall organizational structure.

HOW TO READ THIS BOOK

One could argue that there are two kinds of people: readers and skimmers. Readers don't like to be rushed; they like to pause and reflect, and don't mind being taken by the hand and led through a story. Skimmers, on the other hand, are a take-charge kind of people. When picking up a book they may skip straight to the end, likely glossing over passages that meander or don't move a story along at a fast enough pace.

There are arguably advantages and disadvantages to either approach: In other words, there is no right or wrong way. Recognizing that not every-

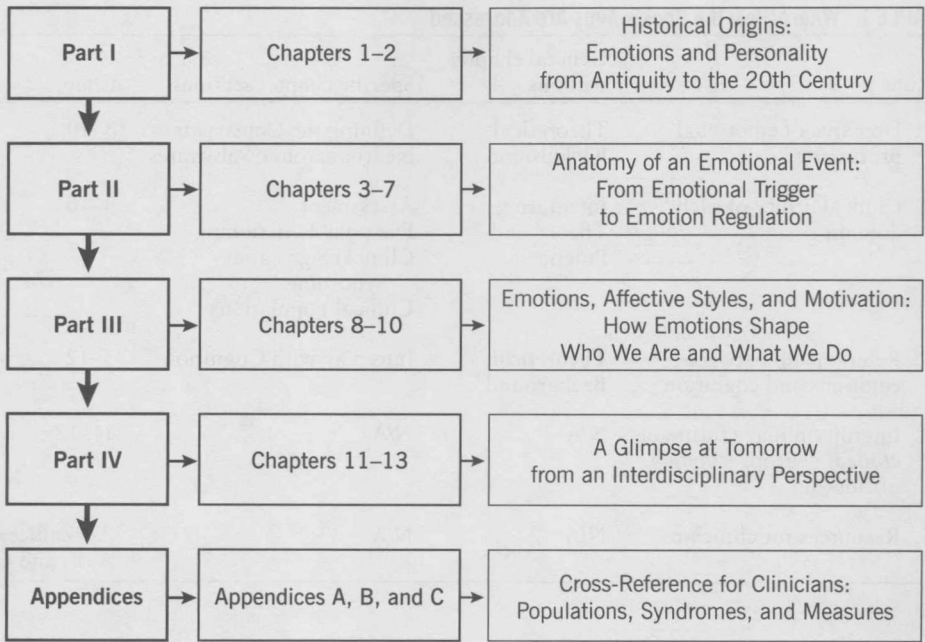


FIGURE 1. The overall organization of the book.

one will use this book in the same manner, care was taken to accommodate both the skimmers and the readers in the audience. Figure 2 illustrates two approaches to how this book could be used.

For the readers (i.e., the top-down approach): This book was written with the expectation that it would be read sequentially, from the start to the finish. It begins with a historical section, inviting the reader to reflect upon whence we came, indulging a bit in the “story of history” beyond the simple names and dates. It then moves on to a description of progressively more complex aspects of emotional processing, going beyond the basic facts, providing the reader with real-life examples and analogies, as well as opportunities to *feel* the constructs at hand. To facilitate review of the materials, appendices are provided at the end that cross-reference syndromes, populations, and assessment instruments across Parts II and III of the book.

For the skimmers (i.e., the bottom-up approach): To facilitate skimming or using the book primarily as a reference tool, ample headings and consistent organization of chapter sections (particularly in Parts II and III) have been provided. Additionally, appendices are provided at the end of the book, allowing the user to “fast-forward” to chapters that contain a desired topic.

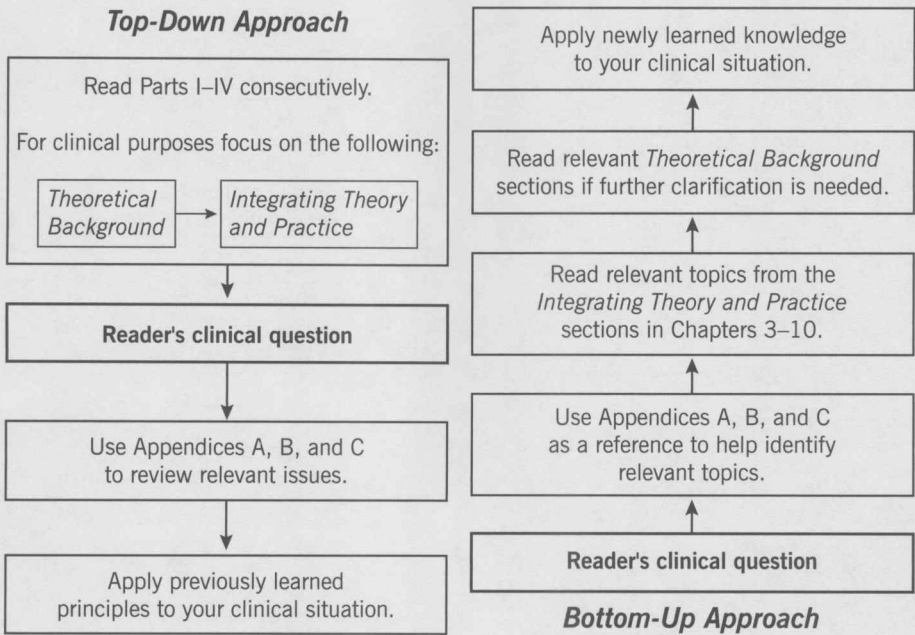
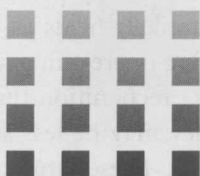


FIGURE 2. Two approaches for using this book. The *top-down approach* is intended for “readers” (i.e., individuals who will read the book consecutively from start to finish). Readers may return to the book when encountering a clinical question in their practice, at which point they may use the appendices to direct them to the relevant sections of the book for a review. The *bottom-up approach* is intended for “skimmers” (i.e., those individuals who will use the book primarily as a reference). Skimmers may pick up the book when they encounter a clinical question in their practice, at which point they may wish to direct their attention to the appendices first, and then proceed to additional relevant sections of the book as needed.

PART I

Historical Origins

Emotions and Personality from Antiquity to the 20th Century



INTRODUCTION TO PART I

The word *emotion* dates back to 1579, when it was adapted from the French *émouvoir*, “to stir up” (Merriam-Webster, 2004),¹ although the earliest precursors of the word likely date back to the very origins of language. Children as young as 2 years of age describe basic emotions spontaneously and without any need for formal instruction (Widen, 2005), and even Koko the signing gorilla is famed to have used signs for “sorry” and “sad” (De La O, 2005). Despite the ubiquity of emotions in everyday life, the worthiness of emotions has traditionally been questioned. For example, in ancient China, it was believed that excesses of emotions cause damage to the *qi*, which in turn damages vital organs; and in the Western World, from Plato to the Middle Ages, emotions were viewed as unhealthy, immoral, and inferior to reason. Even William Shakespeare, whose writings are chockful of “passion,” cautioned against emotional excesses: Ten of Shakespeare’s characters suffered death due to experiencing strong emotions, 18 characters fainted due to emotional upsets, and death as a possible consequence of strong emotions was mentioned in dialogue 29 times (Heaton, 2006).

Fast forward another few centuries, and, oh, how have times changed! In today's Western society, the question "*How did that make you feel?*" is daily uttered from the lips of countless psychotherapists, and the clients' typical responses—"I think it wasn't fair," or "I think I should have done something"—are simply viewed as *unacceptable*. "No, no, no," protest the bewildered psychotherapists, "*How did that make you FEEL?*", their words a testament to a new era in which emotions are not only encouraged, but, at least in some situations, *preferred* over reason.

In recent decades, the interest in emotions has evolved further yet, capturing the imagination of not only psychologists and neuroscientists, but also researches in such unlikely fields as the economics, ecology, and computer science. This growing interest in emotions from even the "hard" sciences reflects the increasing recognition that emotions may not only be good for us, but also that they may be less separate from cognition than has traditionally been thought. These latter views are evidenced by such apparent oxymorons as "emotional intelligence" and "emotional reasoning." In light of these emerging and changing attitudes, the next two chapters review the history of philosophical, psychological, and neuroanatomic models of emotions.

NOTE

1. The word *emotion* replaced the older word *passion*.