



Journal of Neurotherapy: Investigations in Neuromodulation, Neurofeedback and Applied Neuroscience

Book Review: Clinical Neuropsychology of Emotion

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Published online: 21 Nov 2012.

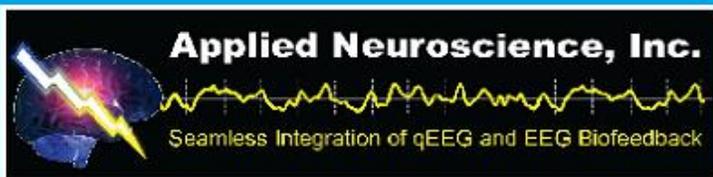
To cite this article: Sarah Prinsloo (2012) CLINICAL NEUROPSYCHOLOGY OF EMOTION. Yana Suchy, Journal of Neurotherapy: Investigations in Neuromodulation, Neurofeedback and Applied Neuroscience, 16:4, 293-294, DOI: [10.1080/10874208.2012.729990](https://doi.org/10.1080/10874208.2012.729990)

To link to this article: <http://dx.doi.org/10.1080/10874208.2012.729990>

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BOOK REVIEW

CLINICAL NEUROPSYCHOLOGY OF EMOTION. Yana Suchy. *Guilford Press, New York, New York, 2011, 252 pages, ISBN 978-1-60918-072-0.*

Yana Suchy is a professor of psychology and clinical neuropsychology program director at the University of Utah. Her book *Clinical Neuropsychology of Emotion* is a wonderful synthesis of research and clinical techniques. The book is organized into four parts, with Part 1 providing a historical overview of emotions and personality. Part 2 provides an in-depth review of emotional processes incorporating neuroanatomy, emotional triggering, and emotional regulation. Part 3 discusses motivation of behavior as a result of emotional processing, and Part 4 is an interdisciplinary look at the potential relevance of the study of emotion to behavioral medicine, genetics, and personality theory. Each chapter is organized in a consistent manner such that Section 1 includes the *theoretical background* of each topic, including neurophysiology and neuroanatomic substrates and the interplay with cognition. Section 2 includes *integrating theory and practice*, which includes clinical signs and symptoms, clinical populations, and assessment. Finally, each chapter concludes with *summary and conclusions*, which encompasses treatment modalities and important considerations for each topic.

Chapter 1 reviews early philosophic models of emotional processing from ancient Greece, proceeding from the philosophies of Plato and Thomas Aquinas through Lazarus's cognitive appraisal model. The author does an excellent job of making the history interesting and easy to remember.

Chapter 2 is titled "Early Neuroanatomic Models of Emotional Processing." This chapter reviews how the central nervous system plays a

role in hypotheses about emotion across time. For example, Jose Delgado, whose research utilized electrical stimulation of various subcortical structures, was the first to suggest that the amygdale played a role in fear conditioning. The author gives an extremely thorough review of brain regions and the researchers who laid the groundwork for our knowledge today and the outcome of their philosophies—whether they were accepted or disproved.

Chapter 3 begins Part 2 of the book and is titled "Anatomy of an Emotional Event." Chapter 3 discusses the "trigger mechanism" as an environmental event begins to be processed. The author gives a real-life scenario that she carries as an example throughout the remaining chapters, then delves into neuroanatomy and physiology surrounding that scenario and effects on attention and memory in neurophysiological terms, and finally reviews assessment and clinical populations where overactive and underactive trigger mechanisms may become problematic.

Chapter 4 reviews reflexive responses and contains plenty of neuroanatomy and physiology—so much so that it could be considered a great reference to refresh existing knowledge or to learn what you didn't know about brain structure and function related to emotional responses.

Chapter 5 is titled "Awareness and Understanding of an Emotional Experience." Did you know that "simply attending to one's heartbeat activates the right anterior insula and the right operculum along with the thalamus and somatosensory cortex"? Or that "externally induced emotions are associated with widespread activation that appears to vary with the type of emotional experience"?

Chapter 6 discusses evidence that affective communication relies on networks that are a

function of direction and mode of communication, stimulus characteristics, and demographic characteristics. The author also discusses the unique aspects of brain regions relative to this communication and at the same time emphasizes that these networks overlap considerably and the implications of that overlap.

Emotional regulation is discussed in Chapter 7 in the same format as the rest of the chapters. By now the reader may appreciate the consistent formatting such that the organization of the book seems to be part of the reason the information is easy to retain once read. The author presents functional imaging research and lesion studies to point out the "reliance of suppression" on the ventral frontal areas of the brain, whereas for reappraisal, the dorsolateral and frontopolar cortices appear to play a role.

Mood and motivation are discussed in Chapter 8. Certainly students of the brain will recognize information such as "withdrawal being subserved by the right cerebral hemisphere whereas approach is subserved by the left," but the author provides such a thorough review that even if the reader begins the chapter sure that the information contained in it is already known, she will probably learn something new.

Chapter 9 discusses motivation and sensitivity to incentives. The author states that the role of reward and punishment systems is to continuously teach us new adaptive behaviors but that just because learning has taken place, action will not necessarily follow, because action requires motivation. Several pages are

devoted to discussion and hypotheses regarding motivation.

Stress and motivation are discussed in Chapter 10, inclusive of initiation of the stress response, containment and habituation, and mechanisms of the HPA axis. Again the chapter concludes with the integration of theory and practice as well as a discussion of clinical populations.

Chapter 11 begins Part 4 of the book, with a review of individual differences in functioning and the role of temperament, heritability and personality. Chapter 12 continues the interdisciplinary discussion of stress regulation and executive function and reviews the role of glucocorticoid receptors and dopaminergic transmission. Chapter 13 posits future directions for the "clinical neuropsychology of emotion."

Although written primarily for neuropsychologists, this book could potentially benefit a broad range of audiences from graduate students to researchers and other clinical practitioners. It is well organized, easy to understand, and most of all concise, which can be difficult to achieve when presenting information on brain function. The book is reader friendly, and although it may require a basic level of neuropsychological knowledge, it is not tech heavy and should be an excellent education and/or review for any library.

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