

THE NATURE OF EMOTION







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The Nature of Emotion: Fundamental Questions,

Second Edition

Andrew S. Fox, Regina C. Lapate, Alexander J. Shackman, and Richard J. Davidson









SECOND EDITION

THE NATURE OF EMOTION

Fundamental Questions

EDITED BY

ANDREW S. FOX
REGINA C. LAPATE
ALEXANDER J. SHACKMAN
and
RICHARD J. DAVIDSON











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For Paul Ekman, who pioneered our understanding of the nature of emotion, and for Jerry Kagan, who reminded us to question what we thought we understood.











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INTRODUCTION

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AND RICHARD J. DAVIDSON

Emotion is a defining feature of the human condition and, thus, it is hardly surprising that it plays a central role in contemporary scientific models of decision making, human development, interpersonal processes, personality, psychopathology, and well-being. Methods and theories developed by emotion researchers have profoundly influenced the development of the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 2013), the U.S. National Institute of Mental Health's strategic plan and Research Domain Criteria (RDoC) initiative, as well as emerging dimensional models of psychopathology (e.g., Kotov et al., 2017; Krueger et al., in press; Clark et al., 2017; Zald & Lahey, 2017). Emotion researchers now occupy leadership positions in a number of scientific societies, including several focused on affect,1 and are well represented among the faculty at top research universities around the world. Numerous highly cited reviews, special issues, specialty journals,2 and books—academic as well as popular-attest to the high level of interest in emotion (e.g., Adolphs & Anderson, 2018; Ashar, Chang, & Wager, 2017; Bach & Dayan, 2017; Barrett, 2017; Barrett, Lewis, & Haviland-Jones, 2016; Barsade & Knight, 2015; Davidson & Begley, 2012; Hu, 2016; LeDoux, 2015; Lerner, Li, Valdesolo, & Kassam, 2015; Niedenthal & Brauer, 2012; Okon-Singer, Hendler, Pessoa, & Shackman, 2015; Sheppes, Suri, & Gross, 2015; Zald & Treadway, 2017).

Nearly 25 years ago, Paul Ekman and Richard Davidson spearheaded the first edition of *The Nature of Emotion* (1994), an edited volume focused on 12 questions about the nature and origins of

emotion. The book included 63 short essays, written by 23 prominent researchers and theorists, with integrative commentaries written by Ekman and Davidson. Kenrick and Funder argued that "science best progresses through multiple and mutually critical attempts to understand the same problem" (Kenrick & Funder, 1988, p. 32), and the side-byside responses that made up *The Nature of Emotion* provided a valuable opportunity for sharpening constructs, identifying unspoken assumptions, and highlighting soft spots in the evidentiary record.

But a quarter-century is a long time. The first edition of *The Nature of Emotion* predated several methodological revolutions—in brain imaging, computing, genomics, network science, open science, optogenetics, and 'wearable' technologies, to name a few—that have profoundly influenced or promise to soon influence our understanding of emotion. So, while its bright red cover can still be seen on the bookshelf in many faculty offices, the first edition is rarely read or used for teaching anymore.

The second edition of *The Nature of Emotion* fills this gap and provide a definitive survey of the current state of the affective sciences. Like the first edition, the book is organized into short chapters focused on basic questions about the nature and origins of emotion. Many of the questions were inspired by the first edition. A few of the original questions have been definitively answered over the past 25 years (*Can we control our emotions?*) and were reframed for the new edition (*How are emotions regulated by context and cognition?*). Other questions are entirely new (*What is the added value of studying the brain for*







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understanding emotion?). Each of the 14 questions is addressed by a collection of experts chosen to represent a range of disciplines and methodological approaches. For many of the chapters, we invited a prominent researcher to address a question that fell outside of his or her core area of expertise, providing an important dose of outside perspective. Altogether, 118 scientists contributed 91 essays, a sizable increase over the first edition. By design, the composition of this group was more gender-diverse than the first edition and included a number of early-career "rising stars." At the end of each chapter, the Editors have written

an Afterword, highlighting key points of consensus and disagreement.

A major goal of *The Nature of Emotion* is to take stock of what we have learned as students of emotion and inspire the next generation of research and conceptual work. We share Ekman and Davidson's aspiration for the first edition: "It is our hope that this volume will serve as a guide for students and researchers and help to define the research agenda for affective science" in the coming years. In the Epilogue, we have provided our own updated vision of that research agenda.



