



# The Nature of Emotion

*Fundamental Questions 2<sup>nd</sup> Edition*

*Edited by*

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**The Nature of Emotion. *Fundamental Questions.***

Second Edition

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## **DEDICATION**

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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—A.S.F., R.C.L., A.J.S. & R.J.D.

## **Author Contributions**

R.J.D. and Paul Ekman developed the overall structure and spirit of the book. A.J.S. initiated the second edition. R.J.D. coordinated interactions with the Publisher and provided theoretical and practical guidance. The Editors collectively developed the 14 fundamental questions and recruited Contributors. A.S.F. developed a database and wrote code to track essay submissions and communicate with Contributors. A.S.F., R.C.L., and A.J.S. edited essays and wrote the afterwords. R.J.D. wrote the preface to Ekman's essay. The Editors developed the overall structure of the Epilogue. A.S.F. and A.J.S. wrote the Epilogue. The Editors revised the Epilogue. A.J.S. wrote the ancillary sections of the book, including the Introduction. A.S.F. and R.C.L. revised the ancillary sections. The Editors and Contributors proofread their respective portions of the book.

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## **TABLE OF CONTENTS**

### **Dedication**

### **Introduction**

#### **Preface to Paul Ekman's Essay**

Richard J. Davidson

#### **How emotions might work**

Paul Ekman

#### **Question 1. *What is an emotion?***

Emotions and feelings: William James and the present

Antonio Damasio & Hanna Damasio

Emotions are functional states that cause feelings and behavior

Ralph Adolphs

What is emotion? A natural science perspective

Peter J. Lang & Margaret M. Bradley

Affect is essential to emotion

Kent C. Berridge

Emotions: Causes and consequences

Gerald L. Clore

What are emotional states, and what are their functions?

Edmund T. Rolls

Active inference and emotion

Karl J. Friston, Mateus Joffily, Lisa Feldman Barrett & Anil K. Seth

Emotions are constructed with interoception and concepts within a predicting brain

Lisa Feldman Barrett

Afterword

Regina C. Lapate & Alexander J. Shackman

#### **Question 2. *How are emotions, mood and temperament related?***

Distinguishing affective constructs: Structure, trait- vs. state-ness, and responses to affect

Kristin Naragon-Gainey

Inhibited temperament and intrinsic versus extrinsic influences on fear circuits

Jennifer Urbano Blackford & David H. Zald

Distinctions among moods and temperaments

Jerome Kagan



Distinctions between temperament and emotion: Examining reactivity, regulation, and social understanding

Lindsay C. Bowman & Nathan A. Fox

Afterword

Alexander J. Shackman, Regina C. Lapate & Andrew S. Fox

**Question 3. *What are the dimensions and bases for lasting individual differences in emotion?***

Personality as lasting individual differences in emotions

Rebecca L. Shiner

The bases for preservation of emotional biases

Jerome Kagan

The psychological and neurobiological bases of dispositional negativity

Alexander J. Shackman, Melissa D. Stockbridge, Edward P. Lemay, Jr. & Andrew S. Fox

Reactivity, recovery, regulation: The three R's of emotional responding

Richard J. Davidson

Afterword

Alexander J. Shackman & Andrew S. Fox

**Question 4. *What is the added value of studying the brain for understanding emotion?***

Studying the brain is necessary for understanding emotion

Tom Johnstone

Brain and emotion research: Contributions of patient and activation studies

Robert W. Levenson

Understanding emotion by unraveling complex structure-function mappings

Luiz Pessoa

Brain studies can advance psychological understanding

Kent C. Berridge

Afterword

Alexander J. Shackman & Regina C. Lapate

**Question 5. *How are emotions organized in the brain?***

Discrete and dimensional contributions to emotion arise from multiple brain circuits

Ralph Adolphs

Brain limbic systems as flexible generators of emotion

Kent C. Berridge

At primal levels, via vast subcortical brain networks that mediate instinctual emotional reactions that help program higher-order emotional-cognitive abilities in higher regions of the brain and mind.

Jaak Panksepp

Brain architecture and principles of the organization of emotion in the brain  
Luiz Pessoa

Variation and degeneracy in the brain basis of emotion.  
Lisa Feldman Barrett

How are emotions organized in the brain?  
Tor D. Wager, Anjali Krishnan & Emma Hitchcock

The brain is organized to emote  
Andrew S. Fox

Neural circuit mechanisms for switching emotional tracks: From positive to negative and back again  
Kay M. Tye

Afterword  
Alexander J. Shackman & Andrew S. Fox

**Question 6. *When and in what ways are emotions adaptive and maladaptive?***

Cultural neuroscience of emotion  
Joan Y. Chiao

Maladaptive emotions are inseparable from inaccurate appraisals  
Phoebe C. Ellsworth

Positive emotions broaden and build: Consideration for how and when pleasant subjective experiences are adaptive and maladaptive  
Barbara L. Fredrickson

Emotions aren't maladaptive  
Aaron S. Heller

The ambiguous issue of adaptive emotions  
Jerome Kagan

The social nature of emotions: Context matters  
Amy Lehrner & Rachel Yehuda

Afterword  
Andrew S. Fox & Regina C. Lapate

**Question 7. *How are emotions regulated by context and cognition?***

Emotion as an evolutionary adaptive pattern: The roles of context and cognition  
D. Caroline Blanchard & Brandon L. Pearson

Individual differences in fear conditioning and extinction paradigms: Insights for emotion regulation  
Marie-France Marin & Mohammed R. Milad

The role of context and cognition in the placebo effect  
Lauren Y. Atlas

Emotional Intensity: It is the thought that counts  
Gerald L. Clore & David A. Reinhard

Emotion regulation as a change of goals and priorities  
Carien M. van Reekum & Tom Johnstone

Searching for implicit emotion regulation  
Matthew D. Lieberman

Fighting fire with fire: Endogenous emotion generation as a means of emotion regulation  
Haakon G. Engen & Tania Singer

Afterword  
Alexander J. Shackman & Regina C. Lapate

### **Question 8. *How do emotion and cognition interact?***

The interplay of emotion and cognition  
Hadas Okon-Singer, Daniel M. Stout, Melissa D. Stockbridge, Matthias Gamer, Andrew S. Fox  
& Alexander J. Shackman

The impact of affect depends on its object  
Gerald L. Clore

Thoughts on cognition-emotion interactions and their role in the diagnosis and treatment of  
psychopathology  
Keren Maoz and Yair Bar-Haim

Beyond cognition and emotion: Dispensing with a cherished psychological narrative  
Alexandra Touroutoglou & Lisa Feldman Barrett

Can we advance our understanding of emotional behavior by reconceptualizing it as involving valuation?  
Roshan Cools, Hanneke den Ouden, Verena Ly & Quentin Huys

Beyond the threat bias: Reciprocal links between emotion and cognition  
Nick Berggren & Nazanin Derakshan

The cognitive-emotional brain  
Luiz Pessoa

Emotional vs. rational systems, and decisions between them  
Edmund T. Rolls

Afterword  
Alexander J. Shackman & Regina C. Lapate

### **Question 9. *How are emotions embodied in the social world?***

Connections between emotions and the social world: Numerous and complex  
Nancy Eisenberg & Maciel M. Hernández

Effects of emotion on interpersonal behavior: A motivational perspective  
Edward P. Lemay, Jr.

Emotion in the social world  
Carolyn Parkinson

The affective nature of social interactions  
Dominic S. Fareri & Mauricio R. Delgado

On the significance of implicit emotional communication  
Andrew S. Fox

Deconstructing social emotions: Empathy and compassion and their relation to prosocial behavior  
Haakon G. Engen & Tania Singer

Afterword  
Andrew S. Fox & Alexander J. Shackman

**Question 10. *How and why are emotions communicated?***

Form of facial expression communication originates in sensory function  
Daniel H. Lee & Adam K. Anderson

Expression of emotion: New principles for future inquiry  
Dacher Keltner, Daniel T. Cordaro, Jessica Tracy, & Disa Sauter

The (more or less accurate) communication of emotions serves social problem solving  
Ursula Hess

Making sense of the senses in emotion communication  
Wen Li, Lucas R. Novak, & Yuqi You

Movement and manipulation: the how and why of emotion communication  
Lasana T. Harris

Concepts are key to the “communication” of emotion  
Maria Gendron & Lisa Feldman Barrett

The web of emotion understanding in human infants  
Betty M. Repacholi and Andrew N. Meltzoff

The dynamic-interactive model approach to the perception of facial emotion  
Jonathan B. Freeman

Afterword  
Regina C. Lapate & Andrew S. Fox

**Question 11. *How are emotions physically embodied?***

How and why emotions are embodied  
Adrienne Wood, Jared Martin & Paula Niedenthal

Emotion in body and brain: Context-dependent action and reaction  
Margaret M. Bradley & Peter J. Lang

The importance of the mind for understanding how emotions are embodied  
Naomi I. Eisenberger

How are emotions physically embodied?  
Rosalind W. Picard

Pain as an embodied emotion  
Tim V. Salomons

How are emotions organized and physically embodied?  
Bruce S. McEwen

The complex tapestry of emotion: immune and microbial contributions  
Melissa A. Rosenkranz

Afterword  
Andrew S. Fox & Alexander J. Shackman

**Question 12. *What is the role of conscious awareness in emotion?***

Emotions are more than their subjective feelings  
Kent C. Berridge

Reactive emotional processing in the absence of conscious awareness  
Joshua M. Carlson

What is the role of unconscious emotions and of conscious awareness in emotion?  
Beatrice de Gelder and Marco Tamietto

Self-regulating our emotional states when we are conscious of them and when we are not  
Leanne Williams

Regulatory benefits of conscious awareness: Insights from the emotion misattribution paradigm and a role for lateral prefrontal cortex  
Regina C. Lapate

A special reference to consciousness  
Antonio Damasio & Hanna Damasio

Afterword  
Regina C. Lapate & Andrew S. Fox

**Question 13. *How are emotions integrated into choice?***

Emotion, value, and choice  
Jolie Wormwood & Lisa Feldman Barrett

Emotions as computational signals of goal error  
Luke J. Chang & Eshin Jolly

Emotions through the lens of economic theory  
Agnieszka Tymula & Paul Glimcher

Emotions can bias decision-making processes by promoting specific behavioral tendencies  
Jan B. Engelmann & Todd A. Hare

How can affect influence choice?  
Brian Knutson & Mirre Stallen

From emotion to motion: Making choices based on current states and biological needs  
Elisabeth A. Murray

Emotions are important for advantageous decision-making: A neuropsychological perspective  
Justin Reber & Daniel Tranel

Affect is the foundation of value  
Catherine Hartley & Peter Sokol-Hessner

Afterword  
Andrew S. Fox & Regina C. Lapate

**Question 14. *What develops in emotional development?***

The recognition of emotion during the first years of life  
Julia Cataldo & Charles A. Nelson

Everything develops during emotional development  
Hill H. Goldsmith

Stability and change in emotion-relevant personality traits in childhood and adolescence  
Rebecca L. Shiner

Normative trajectories and sources of psychopathology risk in adolescence  
Leah H. Somerville & Katie A. McLaughlin

What happens in emotional development? Adolescent emotionality  
Eveline A. Crone & Jennifer H. Pfeifer

Goals change with age and benefit emotional experience  
Candice Hogan, Tamara Sims & Laura L. Carstensen

Ideal ends in emotional development  
Carol D. Ryff

Afterword

Regina C. Lapate & Alexander J. Shackman

**Epilogue—The nature of emotion: A research agenda for the 21st century**

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**References**

**Index**

## Introduction to the *Nature of Emotion*, 2<sup>nd</sup> Edition

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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 (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). Emotion researchers now occupy leadership positions in a number of scientific societies, including several focused on affect<sup>1</sup>, and are well represented among the faculty at top research universities around the world. Numerous highly cited reviews, special issues, specialty journals<sup>2</sup>, and books—academic as well as popular—attest to the high level of interest in emotion (e.g., Anderson & Adolphs, 2014; 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 twenty-five 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-by-side responses that made up *The Nature of Emotion* provided a valuable

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<sup>1</sup> For example, the International Society of Research on Emotion (ISRE); Society for Affective Science (SAS); and Social & Affective Neuroscience Society (SANS).

<sup>2</sup> *Cognition and Emotion*; *Cognitive, Affective, & Behavioral Neuroscience*; *Emotion*; *Emotion Review*; *IEEE Transactions on Affective Computing*; *Motivation and Emotion*; and *Social Cognitive and Affective Neuroscience*.

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, genomics, network science, and optogenetics 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* is designed to fill 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 to the second edition (*What is the added value of studying the brain for 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 92 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, from that foundation, 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.

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