

# Contents

Acknowledgments   vii

## **Introduction   1**

Suzanne Nalbantian

## **I   Scientific Foundations   27**

### **1   The Engram Revisited: On the Elusive Permanence of Memory   29**

Yadin Dudai

### **2   Molecular Genetic Approaches to Memory Consolidation   41**

Alcino J. Silva

### **3   The Epigenetic Variability of Memory: Brain Plasticity and Artistic Creation   55**

Jean-Pierre Changeux

### **4   Memory in Sleep and Dreams: The Construction of Meaning   73**

Robert Stickgold

## **II   Scientific Phenomena and Functioning   97**

### **5   The Mnemonic Brain: Neuroimaging, Neuropharmacology, and Disorders of Memory   99**

Paul M. Matthews

### **6   Memory as a Constructive Process: The Parallel Distributed Processing Approach   129**

James L. McClelland

### **7   Emotional Memory Processing: Synaptic Connectivity   153**

Joseph E. LeDoux and Valérie Doyère

**8 Functions of Human Emotional Memory: The Brain and Emotion 173**

Edmund T. Rolls

**III Crossroads to the Humanities 193****9 Memory and Neurophilosophy 195**

John Bickle

**10 Confabulations about Personal Memories, Normal and Abnormal 217**

William Hirstein

**11 The Neuroethics of Memory 233**

Walter Glannon

**IV Literary Data for Memory Studies 253****12 Autobiographical Memory in Modernist Literature and Neuroscience 255**

Suzanne Nalbantian

**13 Memory and Imagination in Romantic Fiction 277**

Alan Richardson

**14 Memory in the Literary Memoir 297**

John Burt Foster, Jr.

**15 Memory in Theater: The Scene Is Memory 315**

Attilio Favorini

**V Manifestations in the Arts 335****16 Memory in Art: History and the Neuroscience of Response 337**

David Freedberg

**17 Memory in Musical Form: From Bach to Ives 359**

David Michael Hertz

**18 Neurocognitive Approaches to Memory in Music: Music Is Memory 377**

Barbara Tillmann, Isabelle Peretz, and Séverine Samson

**19 Memory, Movies, and the Brain 395**

Fernando Vidal