

Contents

PART I CONCEPTUAL BACKGROUND

- 1 Affective Neuroscience: History and Major Concepts 9
- 2 Emotional Operating Systems and Subjectivity: Methodological Problems and a Conceptual Framework for the Neurobiological Analysis of Affect 24
- 3 The Varieties of Emotional Systems in the Brain: Theories, Taxonomies, and Semantics 41
- 4 Neurostatics: The Anatomy of the Brain/Mind 59
- 5 Neurodynamics: The Electrical Languages of the Brain 81
- 6 Neurodynamics: Neurochemical Maps of the Brain 97

PART II BASIC EMOTIONAL AND MOTIVATIONAL PROCESSES

- 7 Sleep, Arousal, and Mythmaking in the Brain 125
- 8 SEEKING Systems and Anticipatory States of the Nervous System 144
- 9 Energy Is Delight: The Pleasures and Pains of Brain Regulatory Systems 164

- 10 Nature Red in Tooth and Claw: The Neurobiological Sources of Rage and Anger 187

- 11 The Sources of Fear and Anxiety in the Brain 206

PART III THE SOCIAL EMOTIONS

- 12 The Varieties of Love and Lust: Neural Control of Sexuality 225

- 13 Love and the Social Bond: The Sources of Nurture and Maternal Behavior 246

- 14 Loneliness and the Social Bond: The Brain Sources of Sorrow and Grief 261

- 15 Rough-and-Tumble Play: The Brain Sources of Joy 280

- 16 Emotions, the Higher Cerebral Processes, and the SELF: Some Are Born to Sweet Delight, Some Are Born to Endless Night 300

Appendix A: Bones, Brains, and Human Origins 325

Appendix B: The Brain, Language, and Affective Neuroscience 331

Appendix C: Dualism in the Neurosciences 336

Notes 343

Author Index 431

Subject Index 449