

CONTENTS

Sources	vii
About the Authors	xi
Acknowledgments	xvi
Introduction	xvii

PART ONE An Overview of the Brain

1. How Our Brain Constructs Our Mental World	3
<i>Richard Restak</i>	
2. Mirrors in the Mind	12
<i>Giacomo Rizzolatti, Leonardo Fogassi, and Vittorio Gallese</i>	
3. Alphabetized Entries from <i>How to Explain a Brain</i>	20
<i>Robert Sylwester</i>	

PART TWO The Brain in the Classroom: The Brain-Based Learning Debate

4. Neuroscience and Education	33
<i>Usha Goswami</i>	
5. In Search of . . . Brain-Based Education	51
<i>John T. Bruer</i>	
6. Learning Not by Chance: Enrichment in the Classroom	70
<i>Marian C. Diamond and Janet Hopson</i>	
7. Mind and Brain	89
<i>John D. Bransford, Ann L. Brown, and Rodney R. Cocking</i>	

PART THREE The Thinking Brain: Memory, Cognition, and Intelligence

8. Learning and Remembering	109
<i>Sarah-Jayne Blakemore and Uta Frith</i>	

9. Who Owns Intelligence? 120
Howard Gardner
10. The Balance Theory of Wisdom 133
Robert J. Sternberg
11. Remembrance of Emotions Past 151
Joseph LeDoux

PART FOUR

The Feeling Brain: Emotional and Social Foundations

12. We Feel, Therefore We Learn: The Relevance of Affective and Social Neuroscience to Education 183
Mary Helen Immordino-Yang and Antonio Damasio
13. Selections from *Why Zebras Don't Get Ulcers* 199
Robert M. Sapolsky
14. The Effect of Violence and Stress in Kids' Brains 216
Ronald Kotulak

PART FIVE

The Learning Brain: Language, Reading, and Math

15. The Literate Brain 229
Sarah-Jayne Blakemore and Uta Frith
16. Why Some Smart People Can't Read 242
Sally Shaywitz
17. What Happens in the Brain When Children Read 251
Patricia Wolfe and Pamela Nevills
18. Small Heads for Big Calculations 273
Stanislas Dehaene
19. Math Skills 301
James P. Byrnes

PART SIX

The Learning Brain: The Arts

20. The Brain and the Arts 331
David A. Sousa

21. The Role of the Arts in Transforming Consciousness:
Education Is the Process of Learning How to Invent Yourself 359
Elliot W. Eisner
22. My Favorite Thing: Why Do We Like the Music We Like? 370
Daniel J. Levitin

PART SEVEN

The Exceptional Brain: When It Works Differently

23. Exploring Exceptional Brains 385
Eric Jensen
24. Selections from *The Minds of Boys* 405
Michael Gurian and Kathy Stevens
25. The Great Continuum: Diagnosing Autism 413
Temple Grandin
26. Broken Mirrors: A Theory of Autism 435
Vilayanur S. Ramachandran and Lindsay M. Oberman
- Glossary 445
- Credit Lines 455