

CONTENTS

Preface xiii

Acknowledgments xvii

INTRODUCTION: THE BRAIN, HOME OF THE GODS 1

An Evolutionary Theory 3

The Human Brain 6

The Nature of the Evidence 9

Parallel Evolution 16

PART 1 THE MAKING OF THE GODS

1 *HOMO HABILIS*: A SMARTER SELF 23

The First Hominins 25

The Brain of *Homo habilis* 29

Basic Areas Associated with Intelligence 31

Why Did the Brain Increase in Size? 35

2 HOMO ERECTUS: AN AWARE SELF 37

- Self-Awareness 40
- The Brain of *Homo erectus* 45
- A Self-Aware Neuron? 48

**3 ARCHAIC HOMO SAPIENS (NEANDERTALS):
AN EMPATHIC SELF 51**

- A Theory of Mind 55
- Do Animals Have a Theory of Mind? 57
- When a Theory of Mind Is Impaired 59
- The Brain of Archaic *Homo sapiens* 61
- Theory of Mind and Belief in Gods 65

**4 EARLY HOMO SAPIENS:
AN INTROSPECTIVE SELF 68**

- The First Sparks 69
- An Introspective Self 74
- The Introspective Self and Language 78
- The Introspective Self and the Gods 82
- The Brain of Early *Homo sapiens* 84

5 MODERN HOMO SAPIENS: A TEMPORAL SELF 87

- Intentional Burials with Grave Goods 92
- The Advent of the Arts 95
- Mastering the Future: The Evolution of Autobiographical Memory 104
- The Emergence of Religious Thought 1: The Meaning of Death 110
- The Emergence of Religious Thought 2: The Meaning of Dreams 117
- The Human Revolution Revisited 120
- The Brain of Modern *Homo sapiens* 125

PART 2 THE EMERGENCE OF THE GODS**6 ANCESTORS AND AGRICULTURE: A SPIRITUAL
SELF 133**

- “The First Human-Built Holy Place” 134
- Ancestor Worship 137
- The Domestication of Plants and Animals 140
- Farming and Parallel Evolution 144
- The Living and the Dead 146
- Skull Cults 149
- The Earliest Gods 155
- The Brain of the First Farmers 161

7 GOVERNMENTS AND GODS: A THEISTIC SELF 165

- Mesopotamia: The First Documented Gods 166
- Gods in Other Early Civilizations 176
- The Emergence of Major Religions 195

8 OTHER THEORIES OF THE ORIGINS OF GODS 203

- Social Theories 206
- Prosocial Behavior Theories 208
- Psychological and Comfort Theories 211
- Pattern-Seeking Theories 213
- Neurological Theories 215
- Genetic Theories 217
- Are Gods the Products, or By-Products, of Evolution? 218

- Appendix A: The Evolution of the Brain* 225
- Appendix B: Dreams as Proof of the Existence of
a Spirit World and Land of the Dead* 229

Notes 239

Index 279