

## *Contents*

<i>List of figures</i>	<i>page</i> ix
<i>Preface</i>	xi
<i>Acknowledgements</i>	xiv
1 Exploring a strange yet familiar landscape: a strategy for interpreting religious and spiritual experiences	I
Introduction	1
Motivating concerns	4
Theoretical issues	14
Conclusion	25
2 Spirituality and the brain: a revolutionary scientific approach to religious and spiritual experiences	31
Introduction	31
History of thought about spirituality and the brain	32
Evidence for the neural mediation hypothesis	41
Problems facing the neuroscience of religious and spiritual experiences	48
Creative responses	53
Conclusion	67
3 A smorgasbord of dangers and delights: the phenomenology of religious and spiritual experiences	69
Introduction	69
Mapping the terrain of religious and spiritual experiences	70
Basic distinctions in the map	77
Exploring shared territory in more detail	89
Conclusion	101
4 Gateway to ultimacy: the importance of intense experiences	104
Introduction	104
Immediate responses to intense experiences	108
Five core features of intense experiences	115
The faces, functions, and cognitive value of intense experiences	122

viii	<i>Contents</i>	
	Evolution and the neurology of intense experiences	135
	Conclusion	142
5	Can you trust your instincts? The cognitive reliability of religious and spiritual experiences	144
	Introduction	144
	Deepening the reliability question	145
	The perception analogy	156
	An ecological-semiotic theory of dynamic engagement	166
	The reliability of religious perceptual engagement	178
	Conclusion	185
6	The brain-group nexus: the social power of religious and spiritual experiences	187
	Introduction	187
	A dynamical systems approach to the brain-group nexus	189
	Describing all equilibrium social arrangements since the Neolithic	202
	Evolutionary origins of the pre-Neolithic equilibrium	211
	Behind the ideological curtain	218
	Conclusion	225
7	Make it start, make it stop! Religious and spiritual experiences in the future	227
	Introduction	227
	Past technologies, transformed in the present, hurtling into the future	228
	Unprecedented technologies	236
	Conclusion	241
8	Brains in bodies, persons in groups, and religion in nature: an integrative interpretation of religious and spiritual experiences	244
	Introduction	244
	Five key controversies	244
	Five key affirmations	252
	Conclusion	264
	<i>Glossary of key terms</i>	266
	<i>References</i>	271
	<i>Index</i>	300

## *Figures*

3.1	Overlap between vivid [V] and religious [R] experiences	<i>page 79</i>
3.2	Relations between religious [R] experiences and the two overlapping classes of vivid experiences: anomalous experiences [A] and ultimacy experiences [U]	80
3.3	Relations between religious [R] experiences and the two overlapping classes of vivid experiences: anomalous experiences [A] and ultimacy experiences [U]	80
3.4	Locating spiritual experiences (shaded area), as including all of ultimacy experiences [U] and a usage-dependent portion of religious experiences [R] that are not already also ultimate experiences	81
3.5	Schema for Kristeller's multimodal developmental model of meditation effects	90
3.6	Relationships among meditation experiences, religious experiences [R], and vivid experiences, where the latter class is constituted by ultimacy [U] and anomalous [A] experiences	92
3.7	Relationships among intense experiences, religious experiences [R], and vivid experiences, where the latter class is constituted by ultimacy [U] and anomalous [A] experiences	93
3.8	Relationships among mystical experiences, religious experiences [R], and vivid experiences, where the latter class is constituted by ultimacy [U] and anomalous [A] experiences	98
3.9	Relationships among all types of experiences discussed	101
6.1	The self-organizing landscape of social possibilities for the brain-group nexus	191