

Contents

<i>List of Figures</i>	<i>xiii</i>
<i>Preface</i>	<i>xv</i>
Chapter 1. Aim and Scope	I
1. Description of the Project	I
1.1 The Separation of Ethics from Science and Theology	I
2. Our Presuppositions	3
2.1 The Scientific Setting of the Problem	4
2.2 Our Philosophical Stance	5
2.3 Our Theological Position	7
3. The Epistemological Basis	8
3.1 Carl Hempel: The Hypothetico-Deductive Method	8
3.2 Imre Lakatos: Scientific Research Programs	10
3.3 Alasdair MacIntyre: Intellectual Traditions	13
4. Overview of the Argument	15
5. Significance of the Undertaking	18
Chapter 2. The Hierarchy of the Sciences	19
1. Introduction: The Incomplete Hierarchy	19
1.1 Arthur Peacocke on the Hierarchy of the Sciences	20
2. Hierarchies of Complexity	22
2.1 Emergent Order	22
2.2 Top-Down Causation	24
2.3 A Determinate Example: Digital Computers	25
2.4 Hierarchies of Entities in Their Environments	26
2.5 The Physical Mediation of Top-Down Effects	26
2.6 Living Beings as Hierarchical Systems	30
3. Free Will and Determinism	32
4. Confirmation and Explanation in Hierarchical Systems	37
Chapter 3. Cosmology	39
1. Outline of Cosmology	39
1.1 The Physical Foundation: A View of Nature	39

1.2	The Astronomical Universe	45
1.2.1	The Distribution of Matter around Us	45
1.2.2	A Theory of the Evolution of the Universe	46
1.2.3	Formation of Astronomical Structure	47
1.3	Speculations on the Origin of the Universe Itself	48
2.	The Existence of Life	49
2.1	Origins of Life in the Universe	50
2.2	Anthropic Principles	51
2.2.1	The Weak Anthropic Principle	52
2.2.2	The Strong Anthropic Principle	53
3.	Ultimate Causation	53
3.1	Alternative Viewpoints	54
3.1.1	Pure Chance	54
3.1.2	High Probability	54
3.1.3	Necessity	55
3.1.4	Universality	56
3.1.5	Design	57
3.1.6	Multiple Causation	58
3.2	A Tentative Assessment	59
4.	The Need for a Larger View	59
4.1	Limitations of Cosmology Based on Science	60
4.2	Cosmology and Theories of Ultimate Reality	62
Chapter 4: Revision of the Hierarchy		64
1.	The Branching Hierarchy of Sciences	64
2.	The Variety of Sciences	65
2.1	The Analytic and Integrative Sciences	65
2.2	Historical and Geographical Sciences	66
2.3	Applied Science (Technology)	67
2.4	The Human Sciences	68
2.5	Sciences and Confirmation	69
3.	Pure Science and Applied Sciences	70
4.	Applied Science and the Social Sciences	71
5.	The Sciences of the Artificial	73
5.1	Goals and Feedback-Control Systems	74
5.2	Hierarchies of Goals	76
5.3	Goals and Values	77
6.	The Social Sciences	78
6.1	Pure and Applied Social Sciences	79
6.2	Hierarchizing the Social Sciences	80

7. The Branching Hierarchy Revisited	86
7.1 Ethics and the Hierarchy of Goals	86
Chapter 5. Ethics, Theology, and the Social Sciences	88
1. Overview of the Argument	88
2. Social Science and the Need for Ethics	89
2.1 Ethical Assumptions within the Social Sciences	91
2.1.1 Ethics in Economics	91
2.1.2 Ethics, Sociology, and Political Theory	96
2.1.3 Ethics and Law	98
2.2 Ethical Determinants of Social-Science Methods	100
3. The Nature of Ethics	103
3.1 The Science of Ethics	105
4. Ethics and Theology	107
4.1 The Metaphysical Basis of Ethics	108
5. Theology in the Social Sciences	110
5.1 John Milbank on Social-Scientific Heresies	111
6. Conclusion	114
Chapter 6. The Ethical Core	115
1. Overview	115
1.1 The Structure of Ethics	116
2. The Hard Core: Self-Renunciation	118
2.1 Its Paradoxical Nature	121
3. Renunciation as a Social Ethic	122
3.1 Law and Renunciation	122
3.2 Renunciation in the Economic Sphere	126
3.2.1 Organizations and Businesses	128
3.2.2 Government Role	131
3.3 Renunciation in the Political Sphere	132
3.3.1 Organizations Other than the State	133
3.3.2 Can Governments Practice Renunciation?	133
3.4 Nonviolence as Renunciation	135
4. Ethics and Epistemology	139
5. Conclusion	140
Chapter 7. Reconfiguration of Social Science in Light of Ethics	141
1. Empirical Consequences of a Kenotic Ethic	141
2. Confirmation in the Interpersonal Sphere	143

3. Confirmation in the Legal Sphere	144
4. Nonviolence and Social Science	145
4.1 Competing Socio-Ethical Programs	146
4.2 The Issues at Stake	148
4.3 Refinements in Social Analysis	149
4.3.1 Top-Down Causation	149
4.3.2 Levels of Persuasion and Coercion	151
4.3.3 Kenosis and Consent	156
4.3.4 The Thesis Proposed	159
4.4 The Effectiveness of Nonviolence	161
4.5 Confirmation of Specific Auxiliary Hypotheses	163
5. Social Change	165
5.1 A Case Study: South Africa	166
5.2 Initiating and Sustaining Kenotic Action	170
6. Conclusion: The Program and Objections	171
Chapter 8: Ethics and Theories of God	173
1. The Need for a Related Theology	173
2. Kenotic Concepts of God	174
2.1 The Christology of Philippians 2:5-11	176
3. John Howard Yoder's Research Program	178
3.1 The Hard Core	178
3.2 Relating the Core to Ethics	179
3.3 Methodological Auxiliary Hypotheses	181
3.4 The Positive Heuristic	182
3.5 Doctrinal Auxiliary Hypotheses	182
3.5.1 Christology and Trinity	183
3.5.2 Atonement, Sin, and Justification	184
3.5.3 Excursus: Walter Wink on the Domination System	185
3.5.4 Excursus: A Progressive Problemshift	187
3.5.5 Church, World, and Eschatology	190
3.5.6 Kenotic Response to God	194
3.6 Confirmation	196
3.7 Rebutting Counter-evidence	198
4. Theology and Cosmology	201
Chapter 9. Ethics, Cosmology, and Theories of God	202
1. Overview of the Argument	202
2. Theology and Cosmology	205
2.1 The Lawlike Character of the Universe	206
2.2 The Anthropic Universe and Free Will	207

3. Cosmology and the Kenotic Universe	208
3.1 The Provident Universe	209
3.2 The Hidden Nature of Ultimate Reality	210
4. Echoes of Kenosis in Biology	211
5. Noncoercive Divine Action and Physical Reality	213
5.1 Divine Action at the Quantum Level	214
5.2 Quantum Indeterminacy and Revelation	215
6. Consistency with the Scientific Picture	218
7. The Natural-Scientific Context for Morality	219
8. Conclusions	219
Chapter 10. Epistemological Evaluation	221
1. Scope of the Evaluation	221
2. Fine-Scale Evaluation: Overview of the Data	223
3. Medium-Scale Evaluation: Progressive Research Programs	227
3.1 Naturalistic Competitors	231
3.2 Theistic Competitors	235
3.2.1 Wolfhart Pannenberg	235
3.2.2 Philip Hefner	238
3.2.2 Arthur Peacocke	239
4. Large-Scale Evaluation	241
4.1 Theodicy	243
4.2 Epistemological Significance of Theodicy	249
5. Conclusion	250
<i>Index</i>	252