CONTENTS

Preface xiii

Part I Introduction 1
  Section 1 Generic definitions and basic modal realism 1
  Section 2 Metaphysical versus logical possibility? 6
  Section 3 S5 13
  Section 4 Eight views of possibility 17
    4.1 Parmenides, Leslie, and Rescher 17
    4.2 Leucippus, Democritus, Meinong, Lewis, and Aristotle 23
    4.3 The linguistic view 27
    4.4 A Platonic primitive modality view 28
    4.5 Aristotle again and branching 30
    4.6 Leibniz 31
    4.7 Modal irrealism 32
    4.8 Conventionalism 34

Part II Applications and pseudo-applications 39
  Section 1 Modality 39
    1.1 Box and diamond 39
    1.2 The global nature of modal claims 40
    1.3 Supervenience 40
    1.4 Transworld comparison 41
  Section 2 Counterfactuals and causality 42
    2.1 Lewis’s account of counterfactuals and counterexamples 42
    2.2 A fix and the coat thief problem 45
    2.3 Causation and the order of time 47
    2.3.1 The basic argument 47
    2.3.2 Taking the direction of time as primitive 49
2.3.3 Deriving the direction of time from increase of entropy 49
2.3.4 The openness or unreality of the future 51

Section 3 Propositions 52
3.1 Unstructured propositions 52
3.2 Structured propositions 54

Section 4 Properties 60
Section 5 Overall assessment 61

Part III The Lewisian ontology of extreme modal realism 63
Section 1 The Lewisian account of possible worlds 63
Section 2 Identity vs. counterpart theory 66
2.1 Arguments for counterpart theory 66
2.2 Arguments for identity theory 69
2.2.1 General arguments 69
2.2.2 Attributions of ability 70
2.3 Conclusions about identity and counterpart versions of basic EMR 75

Section 3 Indiscernible worlds? 75
Section 4 Lewis’s arguments for his ontology 81
Section 5 Objections to Lewis’s indexical account of actuality 82
5.1 Common sense 82
5.2 Is “the actual world” indexical? 84
5.3 Substitution 86

Section 6 The possibility of spatio-temporally unrelated co-actual entities 88
Section 7 Cardinality and the “set” of all possible worlds 91
7.1 Introduction 91
7.2 There is no set of all possible worlds 92
7.3 Lewis’s proviso 95
7.4 What should Lewis do about the cardinality problem? 96

Section 8 Ethical issues 97
8.1 The ethical objection 97
8.2 The indexicality of morality 98
8.3 Ethical problems for counterpartist EMR 100
8.3.1 A transworld counterfactual 100
8.3.2 The first case: saving a life 101
Contents ix

8.3.3 The second case: self-torture 105
8.3.4 Forking 106
8.3.5 The need for some consequentialistic considerations in ethics 107
Section 9 Induction and actuality 110
9.1 Introduction 110
9.2 Neutral ground 112
9.3 The Humean argument and a reply Lewis cannot give 114
9.4 Conclusions and a formalization 117
Section 10 The epistemological objection 119
Section 11 Explaining the actual in terms of the necessary 122
Section 12 A final assessment of EMR 123

Part IV Platonic ersatz ontologies 125
Section 1 The general strategy 125
1.1 A cheap ersatzism 127
Section 2 Linguistic approaches 130
2.1 The basic idea 130
2.2 Objection from alien properties 132
2.3 Primitive modality 134
2.4 The arbitrariness objection 135
2.5 Mathematical constructions 136
2.6 Combinatorialism and Armstrong 137
2.7 Fictionalist approaches 139
2.7.1 Strong fictionalism 139
2.7.2 Timid factionalism 141
2.7.3 Sider’s pluriverse 147
Section 3 Platonism 155
3.1 Platonic approaches to modality 155
3.2 What are propositions? 155
3.3 Objections to Platonic Ersatzism 158
3.3.1 The set-theoretic objection 158
3.3.2 Alien properties 159
3.3.3 How do propositions represent? 159
3.3.4 The unmet extended Parmenidean challenge 162
3.3.5 Actuality and possibility 165
3.3.6 Powers 171
## Contents

### Part V: Sketches towards a Spinozistic-Tractarian account of modality

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Asserting, naming, and infallibility</td>
<td>179</td>
</tr>
<tr>
<td>2</td>
<td>Spinoza</td>
<td>181</td>
</tr>
<tr>
<td>3</td>
<td>A radical theory of modality</td>
<td>188</td>
</tr>
<tr>
<td>4</td>
<td>Costs</td>
<td>192</td>
</tr>
<tr>
<td>5</td>
<td>The Less Radical Theory</td>
<td>202</td>
</tr>
</tbody>
</table>

### Part VI: Aristotelian-Leibnizian ontology

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Leibniz's approach</td>
<td>205</td>
</tr>
<tr>
<td>1.1</td>
<td>Leibniz's argument for the existence of God and the explanation of the nature of abstracta</td>
<td>205</td>
</tr>
<tr>
<td>1.2</td>
<td>How propositions and possible worlds represent</td>
<td>208</td>
</tr>
<tr>
<td>1.3</td>
<td>The Parmenidean challenge revisited and an assessment of the Leibnizian approach</td>
<td>210</td>
</tr>
<tr>
<td>2</td>
<td>Aristotelian possibility and causality</td>
<td>211</td>
</tr>
<tr>
<td>2.1</td>
<td>Proximate matter, proximate cause, and Parmenides</td>
<td>211</td>
</tr>
<tr>
<td>2.2</td>
<td>The basic Aristotelian view</td>
<td>213</td>
</tr>
<tr>
<td>2.3</td>
<td>Global possibilities: a difficulty</td>
<td>216</td>
</tr>
<tr>
<td>2.4</td>
<td>A direct argument for a necessary being</td>
<td>217</td>
</tr>
<tr>
<td>2.5</td>
<td>S5, the Principle of Sufficient Reason, and the cosmological argument</td>
<td>218</td>
</tr>
<tr>
<td>2.6</td>
<td>The Aristotelian–Leibnizian view</td>
<td>221</td>
</tr>
<tr>
<td>2.7</td>
<td>Branching and other modalities</td>
<td>223</td>
</tr>
<tr>
<td>2.8</td>
<td>Indeterminism</td>
<td>223</td>
</tr>
<tr>
<td>3</td>
<td>Combining with the Spinozistic-Tractarian view</td>
<td>224</td>
</tr>
<tr>
<td>4</td>
<td>Ordinary alethic modal talk</td>
<td>226</td>
</tr>
<tr>
<td>5</td>
<td>The Principle of Sufficient Reason</td>
<td>228</td>
</tr>
<tr>
<td>5.1</td>
<td>From the PSR to the Aristotelian view of modality</td>
<td>228</td>
</tr>
<tr>
<td>5.2</td>
<td>The van Inwagen objection</td>
<td>230</td>
</tr>
</tbody>
</table>
Section 6  Ontology and implications 235
   6.1 Natures and other necessitators 235
   6.2 Dispositions 239
   6.3 Shoemaker's powers 241
   6.4 Explanation 243
   6.5 Reduction 244
   6.6 Some assembly required? 248
   6.7 How we know what is possible 251
   6.8 The structure of the space of possibilities 252
Section 7  The main challenges to Lewisian and Platonic ontologies can be resolved 254
   7.1 Primitive modality 254
   7.2 Transworld identity 255
      7.2.1 Identity option 1: haecceities 255
      7.2.2 Identity option 2: the identity of indiscernibles and a causal-historical account of identity 256
      7.2.3 Identity option 3: divine ideas as differing between worlds 260
   7.3 Attributions of ability 262
   7.4 No set of all possible worlds 263
   7.5 The ethical objection 263
   7.6 Inductive reasoning 264
   7.7 Explaining with necessity 265
Section 8  Objections to the Aristotelian-Leibnizian view 265
   8.1 Primitive causal modality 265
   8.2 Evil and the apparent compatibility of all things 266
   8.3 Is God omnipotent if logical possibility is defined in terms of his power? 267
   8.4 The wrong way around? 269
   8.5 Necessary being 270
   8.6 Obscurity 273
   8.7 Creaturely free will 274
   8.8 Divine simplicity 274
   8.9 Incompatible powers 276
<table>
<thead>
<tr>
<th>Part VII</th>
<th>Final conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 1</td>
<td>Cost–benefit arguments for the Aristotelian–Leibnizian ontology of possible worlds</td>
</tr>
<tr>
<td>1.1</td>
<td>Modality</td>
</tr>
<tr>
<td>1.2</td>
<td>Explanation of what propositions are</td>
</tr>
<tr>
<td>1.3</td>
<td>Not a completely new ontology</td>
</tr>
<tr>
<td>1.4</td>
<td>Connection with theistic arguments for the existence of God</td>
</tr>
<tr>
<td>Section 2</td>
<td>Choosing between accounts of possibility</td>
</tr>
</tbody>
</table>

Appendix: the $\diamond^*$ operator and S4
Bibliography and Further Reading
Index