

Contents

1. SIMPLICITY AS INFORMATIVENESS	i
1.1 <i>Informativeness</i>	i
1.2 <i>Relevance</i>	4
1.3 <i>Questions</i>	6
1.4 <i>The Contribution</i>	7
1.5 <i>Minimum Extra Information (MEI)</i>	10
1.6 <i>Comparing MEI Sets</i>	15
1.7 <i>Questions as Sets of Natural Predicates</i>	19
1.8 <i>Simplicity, Support, and the Weighting Problem</i>	24
1.9 <i>Simplicity in the Context of Hypothesis Choice</i>	33
2. GENERAL APPLICATIONS OF THE THEORY	38
2.1 <i>Heterogeneity</i>	38
2.2 <i>Existential Razors</i>	40
2.3 <i>Reichenbach's Straight Rule</i>	44
2.4 <i>Explanations and Predictions</i>	47
2.5 <i>The Problem of Logical Strength</i>	60
2.6 <i>More on Mathematical Equations</i>	67
2.7 <i>The Order of Quantifiers</i>	76
2.8 <i>Logical Simplicity</i>	78
2.9 <i>Trade-Offs in Simplicity</i>	85
3. SIMPLICITY IN TRANSFORMATIONAL PHONOLOGY	87
3.1 <i>Introduction</i>	87
3.2 <i>Chomsky and Halle on the Role of a Simplicity Criterion in Linguistic Theory</i>	89
3.3 <i>Chomsky and Halle's Simplicity Measure</i>	95
3.4 <i>The Relevance of our Theory of Simplicity</i>	104
3.5 <i>The Suggestions of Contreras and Bach</i>	113
3.6 <i>Spurious Generalizations</i>	120
3.7 <i>Conclusion</i>	124

4. SIMPLICITY AND VISUAL PERCEPTION	127
4.1 <i>Introduction</i>	127
4.2 <i>Two- and Three-Dimensional Interpretations of Line Drawings</i>	132
4.3 <i>Apparent Motion</i>	141
4.4 <i>Aesthetic Simplicity</i>	145
4.5 <i>Perspiciuity</i>	155
4.6 <i>Conclusion</i>	158
5. JUSTIFICATION	161
5.1 <i>Justification and Description</i>	161
5.2 <i>Justifying Simplicity</i>	166
5.3 <i>Simplicity and Realism</i>	171
APPENDIX: Rules for Constructing the Contribution a Hypothesis Makes to Answering a Question	176
BIBLIOGRAPHY	180
INDEX	187