

Contents

Chapter 1. Introduction	1
1.1 The Nature and Utility of Logic	1
1.2 Premises and Conclusions	2
1.3 Diagrams for Single Arguments	18
1.4 Recognizing Arguments	30
1.5 Passages Containing Several Arguments	43
1.6 Deduction and Induction	59
1.7 Truth, Validity, and Soundness	62
1.8 Problem Solving	67
Chapter 2. Some Uses of Language	79
2.1 Four Basic Functions of Language	79
2.2 Discourse Serving Multiple Functions	84
2.3 The Forms of Discourse	87
2.4 Emotive Words	95
2.5 Kinds of Agreement and Disagreement	98
2.6 Emotively Neutral Language	106
Chapter 3. Fallacies	111
3.1 Classification of Fallacies	111
3.2 Fallacies of Ambiguity	113
3.3 The Fallacy Called <i>Non Sequitur</i>	117
3.4 Circular Reasoning, or Begging the Question	121
3.5 False Cause	122
3.6 <i>Ad Hominem</i> Fallacies	127
3.7 Emotional Appeals	130
3.8 Affirming the Consequent and Denying the Antecedent	139

Chapter 4. Definition	145
4.1 Five Purposes of Definition	145
4.2 Verbal Disputes and Definition	151
4.3 Five Types of Definition	155
4.4 Various Kinds of Meaning	163
4.5 Techniques for Defining	167
4.6 Rules for Definition by Genus and Difference	175
Chapter 5. Analogy	185
5.1 The Uses of Analogy	185
5.2 Appraising Analogical Arguments	195
5.3 Refutation by Logical Analogy	208
Chapter 6. Causal Connections: Mill's Methods of Experimental Inquiry	217
6.1 The Meaning of "Cause"	217
6.2 Mill's Methods	224
6.3 Criticisms of Mill's Methods	249
6.4 Vindication of Mill's Methods	256
Chapter 7. Science and Hypothesis	275
7.1 The Values of Science	275
7.2 Explanations: Scientific and Nonscientific	278
7.3 Evaluating Scientific Explanations	285
7.4 The Detective as Scientist	290
7.5 Scientists in Action: The Pattern of Scientific Investigation	300
7.6 Crucial Experiments and <i>Ad Hoc</i> Hypotheses	304
7.7 Classification as Hypothesis	310
Solutions to Selected Exercises	331
Index	367