

Contents

List of Fallacies, xv

1. Introduction to Critical Thinking, 3
2. Accepting the Unproblematic, 8
 - *2.1 A Short Account of the Unproblematic, 10
 - 2.2 Candidates for Unproblematic Acceptance, 13
 - 2.3 Transmission of Claims, 27
 - 2.4 Grounds for Doubting a Candidate, 37
 - 2.5 Unproblematic Claims, 47
 - 2.6 Related Fallacies, 71Summary of Sections 2.2–2.5, 87
3. Deductive Reasoning, 90
 - 3.1 Preliminaries, 91
 - 3.2 Deductive Validity: A General Informal Account, 94
 - 3.3 Truth Functional Logical Forms, 105
 - 3.3.1 Truth Functional Connectives, 106
 - 3.3.2 Truth Functional Statement Forms, 111
 - 3.3.3 Canonical Forms of Statements, 114
 - 3.3.4 Deductive Validity, 117
 - †3.4 Other Logical Properties and Truth Table Analyses, 119
 - 3.5 Toward a Method for Determining Deductive Validity, 129
 - 3.5.1 Some Deductively Valid Argument Forms, 130
 - 3.5.2 Introduction to Simple Chain Arguments, 135
 - 3.6 Expanding the List of Valid Argument Types, 142
 - 3.6.1 Argument Types Involving Negation, 142
 - 3.6.2 Argument Types Involving Conjunctions and Disjunctions, 149

* This section may be skipped or be read in lieu of Sections 2.2–2.5.

† This section is optional and may be skipped.

xii CONTENTS

- 3.7 Translating Logical Forms, 155
 - 3.7.1 Logically Identical Pairs, 156
 - 3.7.2 Interchanging Logically Identical Pairs and the Tactics of Interchange, 161
- 3.8 Beyond Simple Chain Arguments, 169
 - 3.8.1 Conditional Chain Arguments, 169
 - 3.8.2 *Reductio* Chain Arguments, 172
 - 3.8.3 Combining Several Chain Arguments, 175
- 3.9 Summary and Deductive Fallacies, 177
 - Summary of the Rules for Chain Arguments, 180

- 4. Analyzing Argumentative Passages, 182
 - 4.1 Types of Reasons and Degrees of Justification, 183
 - 4.2 Deductive Validity and Degrees of Justification, 189
 - 4.3 Extracting an Outline of the Argument, 197
 - 4.4 Supplying Missing Premises, 212
 - 4.5 Plausibility Assessments, 225
 - ‡4.6 Auxiliary Aids, 235
 - 4.6.1 Expected Utility, 235
 - 4.6.2 Expanded Square of Opposition, 245
 - 4.7 Related Fallacies, 252

- 5. Nondemonstrative Arguments, 270
 - 5.1 Nondemonstrative Legitimacy as the Inference to the Best Explanation, 271
 - 5.2 Determining the Best Explanation, 276
 - 5.2.1 Initial Phase, 276
 - 5.2.2 Coping with Negative Evidence: Supplemental Hypotheses, 279
 - 5.2.3 Justifying Supplemental Hypotheses, Changing Epistemic Circumstances, and Preference Rules for Negative Evidence, 282
 - 5.2.4 Extratheoretical Considerations, 286
 - 5.2.5 The Best Explanation and Nondemonstrative Legitimacy, 288
 - 5.3 Varieties of Nondemonstrative Arguments, 297
 - 5.4 Inferring Explanatory Generalizations, 301
 - 5.5 Mill's Methods and Inferring Descriptive Generalizations, 319

‡ Contains more difficult material and may be skipped.

6. Language and the Levels of Meaning, 340	
6.1 Introduction and Use/Mention Confusions, 340	
6.2 The Level of Syntax, 345	
6.2.1 The Role of Grammar, 345	
6.2.2 Deviant Sentences and Some Methods for Analyzing Them, 350	
6.2.3 Related Fallacies, 358	
6.3 The Level of Semantics, 362	
6.3.1 A General Account of Meaning, 362	
6.3.2 Ambiguity, 371	
6.3.3 Definitions, 376	
6.3.4 The Semantic Contributions of Context, 382	
‡6.3.5 A Pair of Semantic Subtleties, 389	
6.4 The Level of Illocutionary Forces, 397	
6.4.1 Performative Utterances, 397	
6.4.2 Illocutionary Forces and Truth Assessments, 402	
6.5 The Level of Pragmatics, 412	
6.6 Two Additional Dimensions of Meaning, 421	
6.6.1 The Dimension of Empirical Meaning, 422	
6.6.2 The Evaluative Dimension of Meaning, 429	
‡7. Glimpses beyond Critical Thinking, 442	
7.1 The Finer Structure of Statements, 443	
7.1.1 Venn Diagrams and the A, E, I, and O Structures, 443	
7.1.2 Syllogisms, 447	
7.1.3 Quantificational Structures, 451	
7.2 Probabilities, 460	
7.2.1 Introduction: What Are Probabilities?, 460	
7.2.2 Probability Spaces and Elementary Theorems, 463	
7.2.3 Conditional Probability, 471	
7.2.4 Multiple-Stage Processes, 477	
7.2.5 Random Variables, Mean, Variance, and Standard Deviation, 484	
Summary of Section 7.2, 494	
Answers to Selected Exercises, 497	
Index, 535	

‡ Contains more difficult material and may be skipped.