Ninth Edition

Critical Thinking

Brooke Noel Moore Richard Parker

California State University, Chico

Chapter 12 with Nina Rosenstand and Anita Silvers



Boston Burr Ridge, IL Dubuque, IA New York San Francisco St. Louis Bangkok Bogotá Caracas Kuala Lumpur Lisbon London Madrid Mexico City Milan Montreal New Delhi Santiago Seoul Singapore Sydney Taipei Toronto

Table of Contents

Prerace XI
Acknowledgments xvii
About the Authors xix
Chapter 1 Critical Thinking Basics 1
What Is Critical Thinking? 2
The Basics: Claims, Issues, and Arguments 5
Claims 6 Issues 6 Arguments 10 What Arguments Are Not 11
Further Confusions 12
Arguments and Explanations 12 Arguments and Persuasion 13
Two Kinds of Good Arguments 14
Deductive Arguments 14 Inductive Arguments 14
Recognizing Arguments 15
The Two Parts of an Argument 15 The Language of Arguments 15
Other Terms and Concepts 16
Truth 16 Knowledge 17 Value Judgments 17
Extraneous Considerations: Logical Window Dressing 19
A Word About the Exercises 21
Recap 21
Exercises 22
Chapter 2 Two Kinds of Reasoning 41
Arguments: General Features 41
Conclusions Used as Premises 42 Unstated Premises and Conclusions 43

Two Kinds of Arguments 44
Deductive Arguments 44 Inductive Arguments 45 Beyond a Reasonable Doubt 48
Deduction, Induction, and Unstated Premises 48
Techniques for Understanding Arguments 50
Clarifying an Argument's Structure 51 Distinguishing Arguments from Window Dressing 53
Evaluating Arguments 54
Recap 55
Exercises 55
Chapter 3 Clear Thinking, Critical Thinking, and Clear Writing 69
Vagueness 71
Ambiguity 75
Semantic Ambiguity 76 Grouping Ambiguity 77 Syntactic Ambiguity 80
Generality 82
Defining Terms 82
Purposes of Definitions 84 Kinds of Definitions 86 Some Tips on Definitions 86
Writing Argumentative Essays 87
Good Writing Practices 89 Essay Types to Avoid 89 Persuasive Writing 90 Writing in a Diverse Society 91 Recap 92
Exercises 93
01 1 4 0 11 11 405
Chapter 4 Credibility 105
The Claim and Its Source 107
Assessing the Content of the Claim 111
Does the Claim Conflict with Our Personal Observations? 111 Does the Claim Conflict with Our Background Information? 114

The Credibility of Sources 118 Credibility and the News Media 121 Government Management of the News 122 Bias Within the Media 123 Talk Radio 126 The Internet, Generally 126 Wikipedia 128 Blogs 128 Advertising 130 Recap 134 Exercises 135 Chapter 5 Persuasion Through Rhetoric: Common Devices and Techniques 147 Euphemisms and Dysphemisms 148 Rhetorical Definitions and Rhetorical Explanations 149 Stereotypes 151 Innuendo 153 Loaded Questions 154 Weaselers 154 Downplayers 156 Horse Laugh/Ridicule/Sarcasm 157 Hyperbole 158 Proof Surrogates 159 Rhetorical Analogies and Misleading Comparisons 160 Persuasion Using Visual Images 163 Recap 169 Exercises 169 Chapter 6 More Rhetorical Devices: Psychological and Related Fallacies 183 The "Argument" from Outrage 184 Scare Tactics 186 Other Fallacies Based on Emotions 188 Rationalizing 191

Everyone Knows . . . 192

The Subjectivist Fallacy 194
The Relativist Fallacy 195
Two Wrongs Make a Right 196
Red Herring/Smoke Screen 197
Recap 199
Exercises 200

Chapter 7 More Fallacies 211

The Ad Hominem Fallacy 211

The Personal Attack Ad Hominem 212
The Inconsistency Ad Hominem 212
The Circumstantial Ad Hominem 214
Poisoning the Well 214

The Genetic Fallacy 214

"Positive Ad Hominem Fallacies" 215

Straw Man 215

False Dilemma 217

The Perfectionist Fallacy 220 The Line-Drawing Fallacy 220

Slippery Slope 221

Misplacing the Burden of Proof 222

Begging the Question 226

Recap 228

Exercises 229

Chapter 8 Deductive Arguments I: Categorical Logic 254

Categorical Claims 256

Venn Diagrams 257 Translation into Standard Form 258 The Square of Opposition 263

Three Categorical Operations 265

Conversion 265
Obversion 266
Contraposition 266

Categorical Syllogisms 273

The Venn Diagram Method of Testing for Validity 275

Categorical Syllogisms with Unstated Premises 278
Real-Life Syllogisms 279
The Rules Method of Testing for Validity 283
Recap 285
Additional Exercises 286

Chapter 9 Deductive Arguments II: Truth-Functional Logic 297

Truth Tables and the Truth-Functional Symbols 298

Claim Variables 298 Truth Tables 298

Symbolizing Compound Claims 304

"If" and "Only If" 308 Necessary and Sufficient Conditions 310 "Unless" 312 "Either . . ." 312

Truth-Functional Arguments 314

The Truth-Table Method 314
The Short Truth-Table Method 318

Deductions 322

Group I Rules: Elementary Valid Argument Patterns 323 Group II Rules: Truth-Functional Equivalences 328 Conditional Proof 334

Recap 338

Additional Exercises 338

Chapter 10 Three Kinds of Inductive Arguments 346

Arguing from the General to the Specific (Inductive Syllogisms) 347

Arguing from the Specific to the General (Inductive Generalizing) 348

Examples 351

Inductive Arguments from Analogy 353

Attacking the Analogy 358

Random Variation, Error Margins, and Confidence Levels 358

Everyday Inductive Arguments 360

Informal Error-Margin and Confidence-Level Indicators 360

Fallacies in Inductive Reasoning 361

Illicit Inductive Conversions 363

Analogies: The Rest of the Story 364

Polls: Problems and Pitfalls 366

Self-Selected Samples 366 Slanted Questions 368

Playing by the Numbers 368

Recap 371

Exercises 373

Chapter 11 Causal Explanation 385

Two Kinds of Explanations 386

Physical Causal Explanations 386 Behavioral Causal Explanations 387

Explanatory Adequacy: A Relative Concept 389

The Importance of Testability 389

Nontestable Explanations 389

Circular Explanations 392

Unnecessary Complexity 392

Forming Hypotheses 393

The Method of Difference 393

The Method of Agreement 394

Causal Mechanisms and Background Knowledge 396

The Best Diagnosis Method 397

General Causal Claims 399

Confirming Causal Hypotheses 400

Controlled Cause-to-Effect Experiments 400

Alternative Methods of Testing Causal Hypotheses in Human

Populations 402

Nonexperimental Cause-to-Effect Studies 402

Nonexperimental Effect-to-Cause Studies 403

Experiments on Animals 403

Mistakes in Causal Reasoning 404

Confusing Effect with Cause in Medical Tests 405

Overlooking Statistical Regression 406

Proof by Absence of Disproof 409

Appeal to Anecdote 409

Confusing Explanations with Excuses 410

Causation in the Law 410

Recap 413 Exercises 413

Chapter 12 Moral, Legal, and Aesthetic Reasoning 436

Value Judgments 437

Moral Versus Nonmoral 438

Two Principles of Moral Reasoning 438

Moral Principles 440

Deriving Specific Moral Value Judgments 440

Major Perspectives in Moral Reasoning 441

Consequentialism 441

Duty Theory/Deontologism 443

Moral Relativism 445

Religious Relativism 445

Religious Absolutism 446

Virtue Ethics 446

Moral Deliberation 447

Legal Reasoning 456

Justifying Laws: Four Perspectives 457

Aesthetic Reasoning 460

Eight Aesthetic Principles 460

Using Aesthetic Principles to Judge Aesthetic Value 462

Evaluating Aesthetic Criticism: Relevance and Truth 464

Why Reason Aesthetically? 466

Recap 467

Additional Exercises 469

Appendix 1 Essays for Analysis (and a Few Other Items) 472

Selection 1: "Three Strikes and the Whole Enchilada" 472

Selection 2: "Controlling Irrational Fears After 9/11" 473

Selection 3: Excerpts from Federal Court Ruling on the Pledge

of Allegiance 475

Selection 4: "Gays' Impact on Marriage Underestimated"

by Jeff Jacoby 476

Selection 5: "Bush's Environmental Record" by Bob Herbert 478

Selection 6: "Death Penalty Has No Place in the U.S." by Cynthia Tucker 479

Selection 7: "Please, No More Gambling!" (Editorial) 480

Selection 8: "Hetero by Choice?" by Richard Parker 481

Selection 9: Bonnie and Clyde 482

Selection 10: "Disinformation on Judges" by Thomas Sowell 483

Selections 11A and 11B: "Equal Treatment Is Real Issue—

Not Marriage" from *USA Today*, and "Gay Marriage 'Unnatural'"

by the Rev. Louis P. Sheldon 484

Selection 12: "Liberals Love America Like O.J. Loved Nicole" by Ann Coulter 486

Selection 13: "Is God Part of Integrity?" (Editorial) 487

Selection 14: "Calling the Kettle Gay" by Ann Coulter 488

Selections 15A and 15B: "Make Fast Food Smoke-Free" from *USA Today*, and "Don't Overreact to Smoke" by Brennan M. Dawson 489

Selections 16A and 16B: "Buying Notes Makes Sense at Lost-in-Crowd Campuses" from *USA Today*, and "Buying or Selling Notes Is Wrong" by Moore and Parker 491

Selections 17A and 17B: "Next, Comprehensive Reform of Gun Laws" from *USA Today*, and "Gun Laws Are No Answer" by Alan M. Gottlieb 493

Selection 18: Letter from the National Rifle Association 494
Selections 19A and 19B: "How Can School Prayer Possibly Hurt?
Here's How" from *USA Today*, and "We Need More Prayer"
by Armstrong Williams 496

Online Unit: Appendix 2 The Scrapbook of Unusual Issues

Glossary 499
Answers, Suggestions, and Tips for Triangle Exercises 506
Credits 529
Index 531