

CRITICAL THINKING

10e



MOORE/PARKER



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Tenth
Edition

Critical Thinking

Brooke Noel Moore
Richard Parker
California State University, Chico

Chapter 13
by Nina Rosenstand and Anita Silvers





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Brief Table of Contents

| | |
|------------|---|
| Chapter 1 | What <i>Is</i> Critical Thinking, Anyway? 1 |
| Chapter 2 | Two Kinds of Reasoning 37 |
| Chapter 3 | Clear Thinking, Critical Thinking, and Clear Writing 69 |
| Chapter 4 | Credibility 104 |
| Chapter 5 | Persuasion Through Rhetoric: Common Devices and Techniques 146 |
| Chapter 6 | More Rhetorical Devices: Psychological and Related Fallacies 184 |
| Chapter 7 | More Fallacies 210 |
| Chapter 8 | Deductive Arguments I: Categorical Logic 253 |
| Chapter 9 | Deductive Arguments II: Truth-Functional Logic 295 |
| Chapter 10 | Thinking Critically About Inductive Reasoning 349 |
| Chapter 11 | Causal Explanation 389 |
| Chapter 12 | Moral, Legal, and Aesthetic Reasoning 439 |

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Table of Contents

Preface xxii
Acknowledgments xxiv
A Note to Our Colleagues xxvi
About the Authors xxviii

Chapter 1 What *Is* Critical Thinking, Anyway? 1

In Depth Critical Thinking, the Long Version 3

Beliefs and Claims 4

Objective Claims and Subjective Claims 5

In Depth Thinking About Thinking 6

Fact and Opinion 6

Moral Subjectivism 6

Issues 7

Arguments 8

Cognitive Biases 17

In Depth Rational Choice? 19

Truth and Knowledge 23

What Critical Thinking Can and Can't Do 24

A Word About the Exercises 24

Recap 25

Additional Exercises 26

Chapter 2 Two Kinds of Reasoning 37

Arguments: General Features 37

Conclusions Used as Premises 38

Unstated Premises and Conclusions 38

In Depth Conclusion Indicators 39

Two Kinds of Arguments 39

Deductive Arguments 39

In Depth Premise Indicators 40

Inductive Arguments 40

Real Life Abe Lincoln Knew His Logic 41

Beyond a Reasonable Doubt 43

| | | |
|---|--|----|
| | Deduction, Induction, and Unstated Premises | 43 |
| ■ | In the Media Is an Ad Photo an Argument? | 45 |
| | “Balance of Considerations” and IBEs | 45 |
| | What Are Not Premises, Conclusions, or Arguments | 46 |
| | Pictures | 46 |
| | If . . . then . . . Sentences | 47 |
| | Lists of Facts | 47 |
| | “A because B” | 47 |
| | Ethos, Pathos, and Logos | 48 |
| | Techniques for Understanding Arguments | 52 |
| | Clarifying an Argument’s Structure | 52 |
| | Distinguishing Arguments from Window Dressing | 54 |
| ■ | On Language Stupid Liberal! | 55 |
| | Evaluating Arguments | 56 |
| | Recap | 56 |
| | Additional Exercises | 57 |
| | | |
| | Chapter 3 Clear Thinking, Critical Thinking, and Clear Writing | 69 |
| | Vagueness | 71 |
| ■ | In the Media Say What?? . . . | 71 |
| ■ | Real Life Vagueness at the Border | 72 |
| ■ | In the Media A Subtle Ambiguity | 74 |
| | Ambiguity | 74 |
| | Semantic Ambiguity | 75 |
| | Grouping Ambiguity | 76 |
| ■ | In Depth Composition and the First Cause Argument | 77 |
| | Syntactic Ambiguity | 77 |
| ■ | In Depth More Examples of the Composition and Division Fallacies | 78 |
| ■ | On Language Making Ambiguity Work for You | 79 |
| | Generality | 80 |
| | Defining Terms | 83 |
| | Purposes of Definitions | 84 |
| | Kinds of Definitions | 85 |
| | Some Tips on Definitions | 86 |

- **In Depth** Are We Innately Selfish? 86
 - Writing Argumentative Essays 87
 - Good Writing Practices 89
 - Essay Types to Avoid 90
- **On Language** And While We're on the Subject of Writing 90
 - Persuasive Writing 91
 - Writing in a Diverse Society 91
- Recap 93
- Additional Exercises 93

- Chapter 4** Credibility 104

- **Real Life** The Nigerian Advance Fee 4-1-9 Fraud: The Internet's Longest-Running Scam Is Still Running Strong 105
 - The Claim and Its Source 106
- **In the Media** Guaranteeing an Interested Party, or the Fox Audits the Henhouse 107
 - Assessing the Content of the Claim 108
 - Does the Claim Conflict with Our Personal Observations? 108
- **In the Media** Incredible Claims! 108
- **Real Life** When Personal Observation Fails . . . 109
- **In Depth** Incredible but True 111
 - Does the Claim Conflict with Our Background Information? 111
- **Real Life** Do Your Ears Stick Straight Out? 112
- **Real Life** Fib Wizards 113
 - The Credibility of Sources 115
 - Interested Parties 115
- **Real Life** Not All That Glitters 115
 - Physical and Other Characteristics 116
- **Real Life** Whom Do You Trust? 116
 - Expertise 118
- **Real Life** War-Making Policies and Interested Parties 118
- **Real Life** Smoking and Not Paying Attention Can Be Deadly 120
 - Credibility and the News Media 122
 - Consolidation of Media Ownership 122
 - Government Management of the News 123
 - Bias Within the Media 124

- **In the Media** Jumping to Conclusions in the News 124
- **In the Media** Saving Private Lynch 125
 - Talk Radio 127
 - Advocacy Television 127
 - The Internet, Generally 127
- **In the Media** Evaluating Website Credibility: A Tip from the Professionals 128
- **In the Media** Webcheckers 130
 - Advertising 131
- **Real Life** When Is an Ad Not an Ad? When It's a Product Placement! 133
- **On Language** WAY Too Good To Be True! 134
 - Recap 135
 - Additional Exercises 136

- Chapter 5** Persuasion Through Rhetoric: Common Devices and Techniques 146
 - Rhetorical Devices I 147
 - Euphemisms and Dysphemisms 147
 - **Real Life** The Death Tax 148
 - Weaselers 149
 - **In the Media** Innuendo with Statistics 149
 - Downplayers 150
 - Rhetorical Devices II 152
 - Stereotypes 152
 - **In the Media** We Get Dumber in Company of Blondes 153
 - Innuendo 154
 - Loaded Questions 155
 - Rhetorical Devices III 156
 - Ridicule/Sarcasm 156
 - Hyperbole 157
 - Rhetorical Devices IV 158
 - Rhetorical Definitions and Rhetorical Explanations 158
 - **On Language** Legislative Misnomers 158
 - Rhetorical Analogies and Misleading Comparisons 159
 - **In the Media** A Misleading Mathematical Visual 161
 - **Real Life** Cause for Alarm? 162

In Depth Visual Hyperbole, Ridicule, or Just Beefcake? 163

Proof Surrogates and Repetition 164

Proof Surrogates 164

Repetition 165

Persuasion Using Visual Images 166

In the Media Now You See Him—Now You Don't 167

In the Media The Daschle Salute 168

In Depth Don't Get Carried Away! 169

Recap 170

Additional Exercises 171

Chapter 6 More Rhetorical Devices: Psychological and Related Fallacies 184

Fallacies That Involve Appeals to Emotion 185

The Argument from Outrage 185

In the Media Wishful Thinking 187

Real Life Prudential Grounds Versus Rational Grounds 188

Scare Tactics 188

Other Fallacies Based on Emotions 189

Real Life Knee Operation Judged Useless 190

Real Life Patriotic Passion 191

Some Non-Emotion-Based Fallacies 194

Red Herring/Smoke Screen 194

In Depth The "True For . . ." Cop-Out 194

In the Media A Red Herring in a Letter to *Time* 195

Everyone Knows . . . 196

Real Life Is It Still a Lie If Everybody Does It? 197

Rationalizing 199

Two Wrongs Make a Right 200

Recap 201

Additional Exercises 202

Chapter 7 More Fallacies 210

The Ad Hominem Fallacy 210

The Personal Attack Ad Hominem 211

The Inconsistency Ad Hominem 211

- **In Depth** Ad Hominem 212
 - The Circumstantial Ad Hominem 213
 - Poisoning the Well 213
 - “Positive Ad Hominem Fallacies” 214
- The Genetic Fallacy 214
- Straw Man 216
- **In the Media** Seig Heil? . . . or Shut Up? 217
- **In the Media** Straw Man in the Elder Competition 218
 - False Dilemma 218
- **Real Life** Which Is It Going to Be, Springfield? 220
 - The Perfectionist Fallacy 221
 - The Line-Drawing Fallacy 221
- Slippery Slope 222
- **Real Life** \$8 Billion Down the Tube! 223
 - Misplacing the Burden of Proof 223
- **In the Media** A Double Slippery Slope 224
- **In Depth** Innocent Until Proved Guilty 226
- **In the Media** So Much for Presumed Innocence . . . 227
 - Begging the Question 227
- **Real Life** Getting Really Worked Up over Ideas 228
- **On Language** Begging . . . or Begging *For*? 229
 - Recap 230
 - Additional Exercises 230

- Chapter 8** Deductive Arguments I: Categorical Logic 253
 - Categorical Claims 255
 - Venn Diagrams 256
 - Translation into Standard Form 257
 - **On Language** The Most Versatile Word in English 259
 - **In Depth** More on Individual Claims 260
 - The Square of Opposition 262
 - Three Categorical Operations 264
 - Conversion 264
 - Obversion 265
 - Contraposition 265
 - **In Depth** Venn Diagrams for the Three Operations 266

Categorical Syllogisms 271

- **Real Life** Some Do; Therefore, Some Don't 272
 - The Venn Diagram Method of Testing for Validity 273
 - Categorical Syllogisms with Unstated Premises 276
 - Real-Life Syllogisms 277
- **Real Life** The World's Most Common Syllogism 278
- **Real Life** The World's Second Most Common Syllogism 278
- **Real Life** Brodie! 281
- **In Depth** Additional Common Invalid Argument Forms 281
 - The Rules Method of Testing for Validity 281
- **Real Life** A Guide to Dweebs, Dorks, Geeks, and Nerds 283
 - Recap 283
 - Additional Exercises 284

Chapter 9 Deductive Arguments II: Truth-Functional Logic 295

- Truth Tables and the Truth-Functional Symbols 296
 - Claim Variables 296
 - Truth Tables 296
- **In Depth** Test Yourself 301
 - Symbolizing Compound Claims 302
- **In Depth** Truth-Functional Logic and Electrical Circuits 303
 - "If" and "Only If" 304
- **Real Life** Truth-Functional Trickery 305
- **Real Life** Damned If You Do, Damned If You Don't . . . 306
 - Necessary and Sufficient Conditions 307
- **On Language** Another "If" and "Only If" Confusion 308
 - "Unless" 308
 - "Either . . . Or" 309
- Truth-Functional Argument Patterns (Brief Version) 311
 - Three Common Valid Argument Patterns 311
 - Three Mistakes: Invalid Argument Forms 314
- Truth-Functional Arguments 317
 - The Truth-Table Method 317
- **Real Life** An AI Gore Chain Argument 320
 - The Short Truth-Table Method 321

Deductions 325

Group I Rules: Elementary Valid Argument Patterns 325

■ **Real Life** If the Dollar Falls . . . 327

■ **Real Life** Logician at Work 328

Group II Rules: Truth-Functional Equivalences 330

Conditional Proof 337

Recap 340

Additional Exercises 341

Chapter 10 Thinking Critically About Inductive Reasoning 349

■ **In Depth** Everyday Statistical Syllogisms 350

Reasoning from the General to the Specific (Statistical Syllogisms) 351

Reasoning from the Specific to the General (Inductive Generalizing from a Sample) 352

Everyday Inductive Generalizing from a Sample 354

Reasoning from the Specific to the Specific: Inductive Arguments from Analogy 363

The Way Inductive Arguments from Analogy Work 363

Other Uses of Analogies 366

■ **Real Life** Bears! 367

■ **Real Life** Whom Do You Trust? 368

Reasoning from General to General 373

Informal Error-Margin and Confidence-Level Indicators 375

Fallacies in Inductive Reasoning, and Related Problems 376

Hasty Generalization 376

Anecdotal Evidence 377

Biased Generalization 377

The Self-Selection Fallacy 378

■ **Real Life** The Great Slip-Up of 1948 378

Slanted Questions 379

Weak Analogy 379

■ **On Language** Ask Us No (Loaded) Questions; We'll Tell You No Lies 380

Vague Generalities 381

Recap 382

Additional Exercises 383

Chapter 11 Causal Explanation 389

Two Kinds of Explanations 390

Physical Causal Explanations 390

Behavioral Causal Explanations 391

Real Life Behavioral Causal Explanations 392

Explanatory Adequacy: A Relative Concept 393

The Importance of Testability 393

Nontestable Explanations 393

In the Media Scientists: Warming Could Kill Two-Thirds of World's Polar Bears 395

Circular Explanations 395

Unnecessary Complexity 396

Forming Hypotheses 402

The Method of Difference 402

In Depth Global Warming and Hypothesis Forming 403

The Method of Agreement 403

Causal Mechanisms and Background Knowledge 405

In the Media Working at Night to Be Listed as "Probable" Cause of Cancer 405

The Best Diagnosis Method 406

On Language The Wrong Initials Can Shorten Your Life 407

General Causal Claims 412

Confirming Causal Hypotheses 412

Controlled Cause-to-Effect Experiments 413

In the Media Here's to Wine and Cheese 414

Alternative Methods of Testing Causal Hypotheses in Human Populations 415

Mistakes in Causal Reasoning 423

Confusing Conditional Probabilities in Medical Tests 425

Overlooking Statistical Regression 425

In the Media Decoding Your Handwriting Style 427

Real Life See What Happens When You Watch the Tube? 428

Proof by Absence of Disproof 428

Appeal to Anecdote 429

Confusing Explanations with Excuses 429

Causation in the Law 429

On Language The Great 9/11 Mystery 430

- **On Language** AC and IBE 431
 - Recap 432
 - Additional Exercises 432
- **Real Life** Are Women Less Competitive? 438
- Chapter 12** Moral, Legal, and Aesthetic Reasoning 439
 - Value Judgments 440
 - Moral Versus Nonmoral 441
 - Two Principles of Moral Reasoning 441
 - Moral Principles 443
 - **In Depth** Deducing the Right Thing to Do 443
 - Deriving Specific Moral Value Judgments 444
 - Major Perspectives In Moral Reasoning 446
 - Consequentialism 446
 - **In Depth** Acts and Rules 448
 - Duty Theory/Deontology 448
 - **Real Life** Inmate Who Got New Heart While Still in Prison Dies 450
 - Moral Relativism 451
 - Religious Relativism 451
 - Religious Absolutism 452
 - Virtue Ethics 452
 - Moral Deliberation 455
 - **In Depth** Why Moral Problems Seem Unresolvable 455
 - Legal Reasoning 460
 - Justifying Laws: Four Perspectives 461
 - Aesthetic Reasoning 463
 - Eight Aesthetic Principles 463
 - Using Aesthetic Principles to Judge Aesthetic Value 466
 - Evaluating Aesthetic Criticism: Relevance and Truth 468
 - Why Reason Aesthetically? 470
 - Recap 471
 - Additional Exercises 473
- Appendix** Nineteen Topics for Analysis 476
 - Selection 1: Three Strikes and the Whole Enchilada 476
 - Selection 2: 477
 - Selection 3: Controlling Irrational Fears After 9/11 477

| | |
|---|-----|
| Selection 4: Excerpts from Federal Court Ruling on the Pledge of Allegiance | 479 |
| Selection 5: The Threat from Same-Sex Marriage | 480 |
| Selection 6: Death Penalty Has No Place in U.S. | 482 |
| Selection 7: Please, No More Gambling! | 483 |
| Selection 8: Hetero by Choice? | 484 |
| Selection 9: Bonnie and Clyde | 485 |
| Selection 10: Disinformation on Judges | 486 |
| Selection 11A: Equal Treatment Is Real Issue—Not Marriage | 487 |
| Selection 11B: Gay Marriage “Unnatural” | 488 |
| Selection 12: Liberals Love America Like O.J. Loved Nicole | 489 |
| Selection 13: Is God Part of Integrity? | 490 |
| Selection 14A and 14B: Question: Do College and University Administration Have the Right to Establish Standards for Faculty Dress and Grooming? | 491 |
| Selection 15A: Make Fast Food Smoke-Free | 492 |
| Selection 15B: Don’t Overreact to Smoke | 493 |
| Selection 16A: Buying Notes Makes Sense at Lost-in-Crowd Campuses | 494 |
| Selection 16B: Buying or Selling Notes Is Wrong | 495 |
| Selection 17A: Next, Comprehensive Reform of Gun Laws | 496 |
| Selection 17B: Gun Laws Are No Answer | 496 |
| Selection 18: Letters from the National Rifle Association | 497 |
| Selection 19A: How Can School Prayer Possibly Hurt? Here’s How | 499 |
| Selection 19B: We Need More Prayer | 500 |
| | |
| <i>Glossary</i> | 501 |
| <i>Answers, Suggestions, and Tips for Triangle Exercises</i> | 509 |
| <i>Credits</i> | 535 |
| <i>Index</i> | 537 |

List of Boxes

In Depth

- Critical Thinking, the Long Version 3
- Thinking About Thinking 6
- Rational Choice? 19
- Conclusion Indicators 39
- Premise Indicators 40
- Composition and the First Cause Argument 77
- More Examples of the Composition and Division Fallacies 78
- Are We Innately Selfish? 86
- Incredible but True 111
- Visual Hyperbole, Ridicule, or Just Beefcake? 163
- Don't Get Carried Away! 169
- The "True For . . ." Cop-Out 194
- Ad Hominem 212
- Innocent Until Proved Guilty 226
- More on Individual Claims 260
- Venn Diagrams for the Three Operations 266
- Additional Common Invalid Argument Forms 281
- Test Yourself 301
- Truth-Functional Logic and Electrical Circuits 303
- Everyday Statistical Syllogisms 350
- Global Warming and Hypothesis Forming 403
- Deducing the Right Thing to Do 443
- Acts and Rules 448
- Why Moral Problems Seem Unresolvable 455

In the Media

- Is an Ad Photo an Argument? 45
- Say What?? . . . 71
- A Subtle Ambiguity 74
- Guaranteeing an Interested Party, or the Fox Audits the Henhouse 107
- Incredible Claims! 108
- Jumping to Conclusions in the News 124
- Saving Private Lynch 125
- Evaluating Website Credibility: A Tip from the Professionals 128
- Webcheckers 130
- Innuendo with Statistics 149
- We Get Dumber in Company of Blondes 153
- A Misleading Mathematical Visual 161
- Now You See Him—Now You Don't 167
- The Daschle Salute 168
- Wishful Thinking 187
- A Red Herring in a Letter to *Time* 195
- Sieg Heil? . . . or Shut Up? 217
- Straw Man in the Elder Competition 218
- A Double Slippery Slope 224
- So Much for Presumed Innocence . . . 227
- Scientists: Warming Could Kill Two-Thirds of World's Polar Bears 395
- Working at Night to Be Listed as "Probable" Cause of Cancer 405
- Here's to Wine and Cheese 414
- Decoding Your Handwriting Style 427

On Language

- Stupid Liberal! 55
- Making Ambiguity Work for You 79
- And While We're on the Subject of Writing 90
- WAY Too Good To Be True! 134
- Legislative Misnomers 158
- Begging . . . or Begging *For*? 229
- The Most Versatile Word in English 259
- Another "If" and "Only If" Confusion 308
- Ask Us No (Loaded) Questions; We'll Tell You No Lies 380
- The Wrong Initials Can Shorten Your Life 407
- The Great 9/11 Mystery 430
- AC and IBE 431

Real Life

- Abe Lincoln Knew His Logic 41
- Vagueness at the Border 72
- The Nigerian Advance Fee 4-1-9 Fraud: The Internet's Longest-Running Scam Is Still Running Strong 105
- When Personal Observation Fails . . . 109
- Do Your Ears Stick Straight Out? 112
- Fib Wizards 113
- Not All That Glitters 115
- Whom Do You Trust? 116
- War-Making Policies and Interested Parties 118
- Smoking and Not Paying Attention Can Be Deadly 120
- When Is an Ad Not an Ad? When It's a Product Placement! 133

- The Death Tax 148
- Cause for Alarm? 162
- Prudential Grounds Versus Rational Grounds 188
- Knee Operation Judged Useless 190
- Patriotic Passion 191
- Is It Still a Lie If Everybody Does It? 197
- Which Is It Going to Be, Springfield? 220
- \$8 Billion Down the Tube! 223
- Getting Really Worked Up over Ideas 228
- Some Do; Therefore, Some Don't 272
- The World's Most Common Syllogism 278
- The World's Second Most Common Syllogism 278
- Brodie! 281
- A Guide to Dweebs, Dorks, Geeks, and Nerds 283
- Truth-Functional Trickery 305
- Damned If You Do, Damned If You Don't . . . 306
- An AI Gore Chain Argument 320
- If the Dollar Falls . . . 327
- Logician at Work 328
- Bears! 367
- Whom Do You Trust? 368
- The Great Slip-Up of 1948 378
- Behavioral Causal Explanations 392
- See What Happens When You Watch the Tube? 428
- Are Women Less Competitive? 438
- Inmate Who Got New Heart While Still in Prison Dies 450

Moore & Parker's *Critical Thinking*

More Engaging . . . More Relevant . . . More Student Success

Imagine a class where students are actively and personally engaged in thinking critically while also discovering how to apply those thinking skills in everyday life. Now imagine those same students confidently participating in class, working efficiently through the exercises outside class, and performing better in the course.

With *Connect Critical Thinking*, students can achieve this success. *Connect Critical Thinking* is a first: a learning program that integrates adaptive diagnostic instruction with pedagogical tools that are anchored in research on critical thinking.

Along with Moore & Parker's **engaging writing style** and the wealth of topical exercises and examples that are **relevant to students' lives**, *Connect Critical Thinking* helps ensure that students can come to class confident and prepared. What other course provides students with skills they can apply so broadly to **success in school and success in life**?

More Engaging

Moore & Parker are known for their fresh and lively writing style. They rely on their own classroom experience and on feedback from instructors in getting the correct balance between explication and example.

- Examples and exercises are drawn from today's headlines.
- Students learn to apply critical thinking skills to situations in a wide variety of areas: advertising, politics, the media, popular culture.

I love the sense of humor of the authors, the very clear and elegant way they make critical thinking come alive with visuals, exercises and stories.

—Gary John, Richland College

[Before reading this chapter] most students don't realize the extent of product placement and other similar attempts at subtle manipulation.

—Christian Blum, Bryant & Stratton, Buffalo

392

CHAPTER 11: CAUSAL EXPLANATION

Real Life

Behavioral Causal Explanations



Associated Press file, 2003

North Korea's march toward acquiring nuclear weapons could instigate an arms race in the Asia-Pacific region. Japan and South Korea have the capability to enter the nuclear-weapons club but have not done so because they have had confidence in the U.S. nuclear umbrella.

This photo's caption is a behavioral causal explanation, explained in this chapter.

reference not to the past but to the future. Why did Peter leave class early? He wanted to get home in time to watch *American Idol*. Why did the union vote not to approve the contract? The contract contained provisions that members thought diminished benefits. Why is the governor asking the legislature to approve a state lottery? Because she thinks it will decrease the need for new taxes. Explanations in terms of reasons and motives are forward looking, not backward looking.

One mistake is peculiar to this type of explanation—namely, failing to see the difference between a *reason* for doing something and a *particular person's reason* for doing it. Let's take a simple example: There might be a reason for aiding homeless people, but that reason might not be any particular person's reason for helping them. We have to be clear about whether we are requesting (or giving) reasons for doing something, or whether we are requesting (or giving) some individual person's reasons for doing it. When we give a reason for doing something, we are presenting an *argument* for doing it. When we cite an individual person's reason for doing it, we are *explaining* why she or he did it.

More Relevant

Moore & Parker spark student interest in skills that will serve them throughout their lives, making the study of critical thinking a meaningful endeavor.

- *Real Life* boxes show students how critical thinking skills are relevant to their day-to-day lives.
- Striking visuals in every chapter show students how images affect our judgment and shape our thinking.

I particularly like the "real world" boxes and the "media" boxes, which will help students connect critical thinking to their everyday lives.

—Michelle Darnell, Fayetteville State University

The variety [in the exercises] was outstanding. [They] will provide ample opportunity for the students to put into practice the various logical principles being discussed.

—Ray Darr, Southern Illinois University

Real Life

Which Is It Going to Be, Springfield?



This

or

THIS!

This was the message on a flyer urging a "no" vote on a proposed zoning law change in a western city. Since the photos depict only two (fairly extreme) alternatives, and given that there are surely many other reasonable ones, the flyer presents an excellent example of a false dilemma.

winter. You also know that the only heating options available in their location are gas and electricity. Under these circumstances, if you find out that they do not have electric heat, it must indeed be true that they must use gas heat because that's the only alternative remaining. False dilemma occurs only when reasonable alternatives are ignored. In such cases, both X and Y may be false, and some other alternative may be true.

Therefore, before you accept X because some alternative, Y, is false, make certain that X and Y cannot both be false. Look especially for some third alternative, some way of rejecting Y without having to accept X. Example:

MOORE: Look, Parker, you've been worrying about whether you could afford that bigger house on the corner for ~~so long~~ so long. You need to grit your teeth and get used to staying where you are without the extra space.

Moore's alternatives (buying the house on the use of some obvious but unmentioned alter-

er house to buy, bigger than his present one the corner, or he might remodel his current house than buying the corner house.

Moore would point out that there is more than one alternative. Aside from the obvious "either X or Y," we can use the form "if not X, then Y."

In the Media

The Daschle Salute



This looks like a big-time "Oops!" moment for Tom Daschle, former majority leader in the U.S. Senate. In fact, as explained in the text, it is a clever attempt to influence opinion against Daschle through photo manipulation.

The photos in the box "Now You See Him—Now You Don't" on the previous page are from Hong Kong's newspaper, *The Standard*, from September 2, 2004. The original photo [lower right] showed China's then paramount leader Deng Xiaoping (in the gray jacket on the right) shaking hands with Hu Jintao (wearing the tie), who has been China's president since 2003. The person standing between them in the original photo is former President Jiang Zemin. We don't know what might have become of Jiang's reputation (he continued in high office for some years after the photo was made), but his image suffered a disappearing act.

In the next box, "The Daschle Salute," it looks as though Tom Daschle (the majority leader in the Senate at the time) doesn't know how to salute the flag or doesn't know his right hand from his left. In reality, he did it correctly, but someone reversed his image, flipping it right-to-left so that he appeared to be saluting with his left hand rather than his right. There are two clues to the doctoring that went on in this photo. It would take not just a critical thinker but a sharp eye to spot them. The first is that Daschle is married and wears a wedding ring. If this were really his left hand, one would see his ring. The second clue is more convincing. It's that his coat is buttoned backwards: Men's clothing always has buttons on the right side of the garment, so it's the left side that closes over the right. In the photo, the right side of Daschle's jacket closes over the left, indicating that it isn't just his hand that is on the wrong side, his clothing would have to be reversed, too!

Critical Thinking
MWF 8-10 am Section 2
Sarahb Sarab

connect

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| Student | CH01 Pretest | Video and questions | CH01 Posttest | Practice quiz 1 | Total |
|----------------------|--------------|---------------------|---------------|-----------------|-------|
| Total Value (Points) | 100 | 20 | 100 | 50 | 270 |
| Akanez, Tom | 100 | 10 | 100 | 50 | 210 |
| Rovk, Sabrina | 100 | 10 | 100 | 50 | 197 |

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—Patricia Baldwin, Pitt Community College

There are a lot of exercises, which provides nice flexibility. The . . . mix of relatively easy and more challenging pieces . . . is useful in providing some flexibility for working in class.

—Dennis Weiss, York College of Pennsylvania

is too ugly to eat" translates into the I-claim "Some examples of boiled okra are things that are too ugly to eat."

As we noted, it's not possible to give rules or hints about every kind of problem you might run into when translating claims into standard-form categorical versions. Only practice and discussion can bring you to the point where you can handle this part of the material with confidence. The best thing to do now is to turn to some exercises.

Translate each of the following into a standard-form claim. Make sure that each answer follows the exact form of an A-, E-, I-, or O-claim and that each term you use is a noun or noun phrase that refers to a class of things. Remember that you're trying to produce a claim that's equivalent to the one given; it doesn't matter whether the given claim is actually true.

Exercise 8-1

- Every salamander is a lizard.
- Not every lizard is a salamander.
- Only reptiles can be lizards.
- Snakes are the only members of the suborder Ophidia.
- The only members of the suborder Ophidia are snakes.
- None of the burrowing snakes are poisonous.
- Anything that's an alligator is a reptile.
- Anything that qualifies as a frog qualifies as an amphibian.
- There are frogs wherever there are snakes.
- Wherever there are snakes, there are frogs.
- Whenever the frog population decreases, the snake population decreases.
- Nobody arrived except the cheerleaders.
- Except for vice presidents, nobody got raises.
- Unless people arrived early, they couldn't get seats.
- Most home movies are as boring as dirt.
- Socrates is a Greek.
- The bank robber is not Jane's fiancé.
- If an automobile was built before 1950, it's an antique.
- Salt is a meat preservative.
- Most corn does not make good popcorn.

Follow the instructions given in the preceding exercise.

Exercise 8-2

- Students who wrote poor exams didn't get admitted to the program.
- None of my students are failing.
- If you live in the dorms, you can't own a car.
- There are a few right-handed first basemen.
- People make faces every time Joan sings.

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Preface

CHANGES TO 10TH EDITION

Broad changes

- Learning objectives have been articulated and stated up front in each chapter.
- The text has been fully integrated with Connect, an online learning program that integrates adaptive diagnostic instruction with pedagogical tools anchored in research on critical thinking.
- Exercises have been interspersed within chapters, following each major section, so that students can more directly monitor their learning.
- Exercises have been updated to reflect current events and issues, and new exercise sets have been added to provide more practice for students.
- Examples of argument diagrams have been added to most chapters.

Chapter-specific changes

- Chapter 1, *What Is Critical Thinking, Anyway?*, has been completely rewritten in order to present a more direct, more clearly organized introduction. In addition, the chapter now includes new sections on important cognitive biases, fact and opinion, why one should bother to think critically, and what critical thinking can and cannot do.
- Chapter 2, *Two Kinds of Reasoning*, has new sections on pathos, ethos, and logos; what are NOT premises; balance-of-considerations arguments; and inference-to-best-explanation.
- Chapter 4, *Credibility*, has been reorganized to more accurately and logically present the topic.
- Chapter 5, *Persuasion Through Rhetoric*, has been reorganized to more logically group the multiple types of rhetorical devices.
- Chapter 9, *Deductive Arguments II: Truth-Functional Logic*, has a completely new section that provides a basic, introductory account of deductive arguments. Rather than proceed into the complications of deductions, this section deals at greater length with basic deductive argument forms—the sort of thing that was outlined previously on the inside back cover of the book.
- Chapter 10, *Thinking Critically About Inductive Reasoning*, has been completely rewritten for better coverage. In its new incarnation, the chapter includes sections on vague and glowing generalities, reasoning from general to general, the self-selection fallacy, and the principle of total evidence. In addition, the chapter has improved discussions of argument from analogy, scientific generalizing from samples, and everyday generalizing from samples. Illustrative evaluations of inductive reasoning have been added as well.

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