

Moore/Parker
Critical Thinking
Eleventh Edition



**This
International
Student Edition
is for use
outside
the U.S.**

McGraw-Hill International Edition



Eleventh
Edition

Critical Thinking



California State University, Chico

with help in Chapter 12
from Nina Rosenstand and Anita Silvers

Mc
Graw
Hill
Education



CRITICAL THINKING, ELEVENTH EDITION

Published by McGraw-Hill Education, 2 Penn Plaza, New York, NY 10121. Copyright © 2015 by McGraw-Hill Education. All rights reserved. Printed in the United States of America. Previous editions © 2012, 2009, and 2007. No part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written consent of McGraw-Hill Education, including, but not limited to, in any network or other electronic storage or transmission, or broadcast for distance learning.

Some ancillaries, including electronic and print components, may not be available to customers outside the United States.

This book is printed on acid-free paper.

1 2 3 4 5 6 7 8 9 0 DOW/ DOW 1 0 9 8 7 6 5 4

ISBN 978-1-259-25395-9

MHID 1-259-25395-3

Chapter 5: Rhetorical devices and techniques

- Euphemisms
- Dysphemisms
- Weasellers
- Downplayers
- Stereotypes
- Innuendo
- Loaded questions
- Ridicule and sarcasm
- Hyperbole
- Rhetorical analogies, definitions, and explanations
- Proof surrogates
- Repetition
- Techniques of Demagoguery: Otherizing, Demonizing, Fostering Xenophobia, and Fear and Hate Mongering

Chapter 6: Relevance Fallacies (Red Herrings)

- *Argumentum ad hominem* (includes Poisoning the Well, Guilt by Association, and Genetic Fallacy)
- Straw Man
- False Dilemma (includes Perfectionist Fallacy and the Line-Drawing Fallacy)
- Misplacing the Burden of Proof
- Begging the Question
- Appeal to Emotion (includes Argument from Outrage, Scare Tactics, Peer Pressure Fallacy, Appeal to Pity, Apple Polishing, Guilt Tripping, Appeal to Jealousy, and Appeal to Envy)
- Irrelevant Conclusion (includes Two Wrongs Make a Right, Wishful Thinking, and Denial)

Critical Thinking . . . Skills for

The first integrated program designed specifically for the critical thinking course, Moore & Parker's *Critical Thinking* teaches students the skills they need in order to think for themselves—skills they will call upon in this course, in other college courses, and in the world that awaits. The authors' practical and accessible approach illustrates core concepts with concrete real-world examples, extensive practice exercises, and a thoughtful set of pedagogical features. McGraw-Hill Connect® and LearnSmart® for *Critical Thinking* coalesce in a highly adaptive learning environment where each student gets the targeted help he or she needs for more efficient mastery of course concepts.

Adaptive Learning and Reading

New from McGraw-Hill Education, LearnSmart Advantage™ is a series of adaptive learning products fueled by LearnSmart, the most widely used and intelligent adaptive learning resource proven to improve learning since 2009.

McGraw-Hill LearnSmart®

How many students *think* they know everything about how to think critically but struggle on the first exam? *Critical Thinking* helps students understand what they know and don't know about critical thinking concepts. LearnSmart Advantage, McGraw-Hill's adapting learning system suite, helps students identify what they know—and more importantly, what they don't know. Based on Bloom's Taxonomy, LearnSmart Advantage creates a customized study plan, unique to every student's

demonstrated needs. With virtually no administrative overhead, instructors using LearnSmart Advantage are reporting an increase in student performance by one letter grade or more. Through this unique tool, instructors have the ability to identify struggling students quickly and easily, *before* the first exam. Regardless of individual study habits, preparation, and approaches to the course, students will find that *Critical Thinking* connects with them on a personal, individual basis and provides a road map for real success in the course.

McGraw-Hill SmartBook™

SmartBook is the first and only adaptive reading experience available for the higher education market. Powered by an intelligent diagnostic and adaptive engine, SmartBook facilitates and personalizes the reading process by identifying what content a student knows and doesn't know through adaptive assessments. As the student reads, SmartBook constantly adapts to ensure the student is focused on the content he or she needs the most to close any knowledge gaps.



the course. Skills for life.

McGraw-Hill Connect Critical Thinking

McGraw-Hill Connect *Critical Thinking* engages students in the course content so they are better prepared, are more active in discussion, and achieve better results.

Assignable and Assessable Activities

Connect *Critical Thinking* offers a wealth of assignable and assessable course materials. Videos, interactivities, and self-assessments engage students in course concepts. Detailed reporting helps the students and instructors gauge comprehension and retention—*without adding administrative load*.

Streamlined Course Management and Powerful Reporting

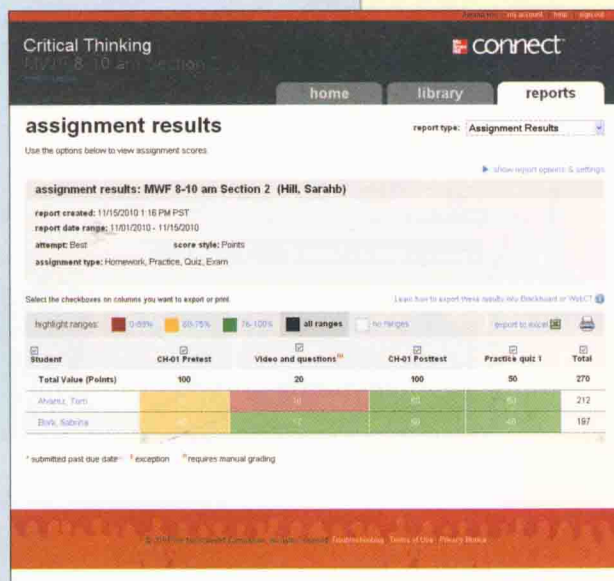
Whether a class is face-to-face, hybrid, or entirely online, *Critical Thinking* provides the tools needed to reduce the amount of time and energy instructors must expend to administer their course. Easy-to-use course management allows instructors to spend less time administering and more time teaching.

- **At-Risk Student Reports:** The at-risk report provides instructors with one-click access to a dashboard that identifies students who are at risk of dropping out of a course due to low engagement levels.
- **Category Analysis Reports:** The category analysis report is the place to go to and find out how your students are performing relative to specific learning objectives and goals.
- **Item Analysis Reports:** The item analysis report is the best way to get a bird's-eye view of a single assignment. You'll be able to tell if students are improving or if the concepts are something you want to spend additional time on in class.
- **Student Performance Reports:** The student performance report helps you search for a specific student in your class and focus on that student's progress across your assignments.
- **Assignment Results and Statistics Reports:** The assignment results report shows your entire class's performance across all of your assignments. Assignment statistics reports will give you quick data on each assignment including the mean score, high score, and low scores, as well as the number of times it was submitted.



connect®

CRITICAL THINKING





■ Does Diddy dress well? The issue is subjective, or, as some people say, "a matter of opinion."

difficult or the subject matter is unfamiliar.* Perhaps some manifestation of the overconfidence effect explains why, in the early stages of the *American Idol* competition, many contestants appear totally convinced they will be crowned the next American Idol—and are speechless when the judges inform them they cannot so much as carry a tune.**

Closely related to the overconfidence effect is the **better-than-average illusion**. The illusion crops up when most of a group rate themselves as better than most of the group relative to some desirable characteristic, such as resourcefulness or driving ability. The classic illustration is the 1976 survey of SAT takers, in which well over 50 percent of the respondents rated themselves as better than 50 percent of other SAT takers with respect to such qualities as leadership ability.¹ The same effect has been observed when people estimate how their intelligence, memory, or job performance stacks up with the intelligence, memory, and job performances of other members of their profession or workplace. In our own informal surveys, more than 80 percent of our students rate themselves in the top 10 percent of their class with respect to their ability to think critically.

Unfortunately, evidence indicates that even when they are informed about the better-than-average illusion, people may still rate themselves as better than most in their ability to not be subject to it.²

That beliefs are generated as much by psychology and impulse as by evidence should come as no surprise. The new car that was well beyond our means yesterday seems entirely affordable today—though our finances haven't changed. If someone invited us to the Olive Garden we'd expect decent fare, but if they suggested we try dining at, say, The Lung Garden, we'd hesitate—even if we were told the food is identical. People will go out of their way to save \$10 when buying a \$25 pen, but won't do the same to

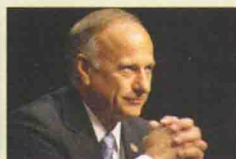
*See Sarah L. Schneider and other authors, "Cultivation of Probabilities: The State of the Art in 1990," in Daniel Kahneman, Paul Slovic, and Amos Tversky, *Judgment under Uncertainty: Heuristics and Biases* (Cambridge: Cambridge University Press, 1982), 100–24.

**This possibility was proposed by Gad Saad, *Psychology Today*, www.psychologytoday.com/blog/home-consumers/2009/03/psychology-american-idol-is-a-adaptation.

¹See Mark D. Alicke and other authors, "The Better-Than-Average Effect," in Mark D. Alicke and others, *The Self in Social Judgment: Studies in Self and Identity* (New York: Psychology Press, 2005), pp. 95–106. The latter study was repeated in connection with the Lake Wobegone effect, in reference to Garrison Keillor's story about the fictional Minnesota town, where all the children are above average.

²http://asktopia.com/question-what-psychology-tv-answers-from/1765/asktopia-20100428/ For the better-than-average bias has not been found to hold for all positive traits, in some things, people underestimate their abilities. The moral is that for many abilities, we are probably not the best judges of how we compare to others. And this includes the ability to think critically.

Appealing to Tradition



According to Representative Steve King of Ohio (pictured here), "Equal protection (under the Constitution) is not equal protection for same sex couples to marry. Equal protection was for a man and a woman to be able to get married to each other."

FALLACIES RELATED TO CAUSE AND EFFECT

It can be difficult to prove a cause-and-effect relationship between two variables, which is why fallacious reasoning can occur in this context. In this section we explore two important fallacies that can be made in reasoning about cause and effect. What the two fallacies have in common is this. Both assume that the timing of two variables relative to each other, in and of itself, is sufficient to establish that one is the cause and the other is the effect. This assumption is incorrect.

Post Hoc, Ergo Propter Hoc

Post Hoc, Ergo Propter Hoc means "After this, therefore because of this." A speaker or writer commits this fallacy when he or she assumes that the fact that one event came after another establishes that it was caused by the other. Here is an example:

After I took Zicam my cold went away fast. Therefore taking Zicam caused my cold to go away fast.

The speaker makes a mistake to assume that Zicam caused the cold to go away fast. The argument is no better than this one:

After I played poker my cold went away fast. Therefore playing poker caused my cold to go away fast.

Here is a slightly different example, a classic illustration of *post hoc, ergo propter hoc*:

Every day the sun comes up right after the rooster crows, therefore the rooster causes the sun to come up.

More Engaging

Moore & Parker are known for fresh and lively writing. 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

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.

- 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.

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

More Student Success

Moore & Parker provide a path to student success, making students active participants in their own learning while teaching skills they can apply in all their courses.

- Learning objectives link to chapter sections and in turn to print and online activities, so that students can immediately assess their mastery of the learning objective.
- Exercises are dispersed throughout most chapters, so that they link tightly with the concepts as they are presented.
- Students have access to over 2,000 exercises that provide practice in applying their skills.

Hands-on, practical, and one might say, even "patient" with the students' learning as it emphatically repeats concepts and slowly progresses them step by step through the process.

—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

EXERCISES

241

Exercise 9-14

Display the truth-functional structure of the following claims by symbolizing them. Use the letters indicated.

- D = We do something to reduce the deficit.
- B = The balance of payments gets worse.
- C = There is (or will be) a financial crisis.

- ▲ 1. The balance of payments will not get worse if we do something to reduce the deficit.
- 2. There will be no financial crisis unless the balance of payments gets worse.
- 3. Either the balance of payments will get worse, or, if no action is taken on the deficit, there will be a financial crisis.
- ▲ 4. The balance of payments will get worse only if we don't do something to reduce the deficit.
- 5. Action cannot be taken on the deficit if there's a financial crisis.
- 6. I can tell you about whether we'll do something to reduce the deficit and whether our balance of payments will get worse: Neither one will happen.
- ▲ 7. In order for there to be a financial crisis, the balance of payments will have to get worse and there will have to be no action taken to reduce the deficit.
- 8. We can avoid a financial crisis only by taking action on the deficit and keeping the balance of payments from getting worse.
- 9. The only thing that can prevent a financial crisis is our doing something to reduce the deficit.

Exercise 9-15

For each of the numbered claims below, there is exactly one lettered claim that is equivalent. Identify the equivalent claim for each item. (Some lettered claims are equivalent to more than one numbered claim, so it will be necessary to use some letters more than once.)

- ▲ 1. Oil prices will drop if the OPEC countries increase their production.
- 2. Oil prices will drop only if the OPEC countries increase their production.
- 3. Neither will oil prices drop, nor will the OPEC countries increase their production.
- ▲ 4. Oil prices cannot drop unless the OPEC countries increase their production.
- 5. The only thing that can prevent oil prices dropping is the OPEC countries' increasing their production.
- 6. A drop in oil prices is necessary for the OPEC countries to increase their production.

Additional Exercises

Teaching with Moore & Parker's *Critical Thinking*

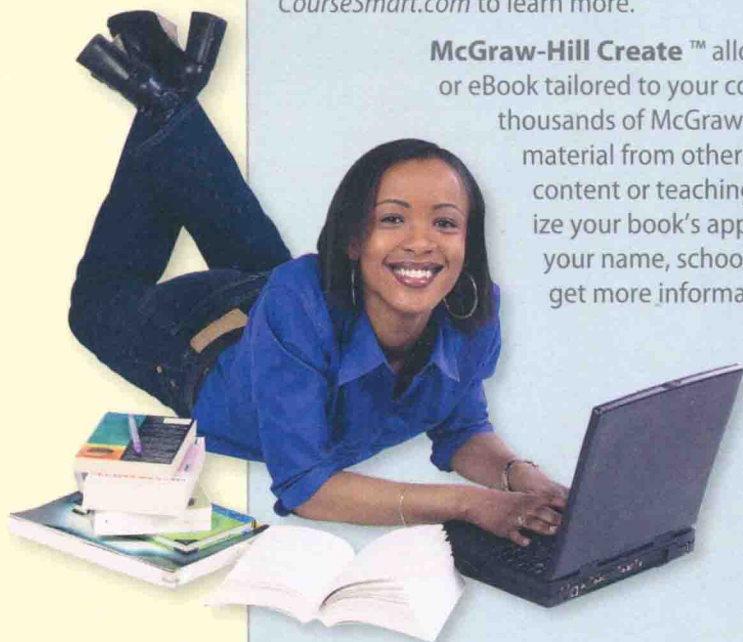
The complete content of Moore & Parker's *Critical Thinking* is available to instructors and students in traditional print format as well as online with integrated and time-saving tools.

Blackboard® and McGraw-Hill Higher Education have teamed up! Now, *all McGraw-Hill content (text, tools, and homework) can be accessed directly from within your Blackboard course—all with a single sign-on. Connect assignments within Blackboard automatically (and instantly) feed grades directly to your Blackboard grade center.* No more keeping track of two grade books! Even if your institution is not currently using Blackboard, McGraw-Hill has a solution for you. Ask your sales representative for details.

McGraw-Hill Tegrity® is a service that makes class time available all the time by capturing audio and computer screen shots from your lectures in a searchable format for students to review when they study and complete assignments. With classroom resources available all the time, students can study more efficiently and learn more successfully.

CourseSmart, the largest provider of eTextbooks, offers students the option of receiving *Critical Thinking* as an eBook. *At CourseSmart your students can take advantage of significant savings off the cost of a print textbook, reduce their impact on the environment, and gain access to powerful web tools for learning.* CourseSmart eTextbooks can be viewed online or downloaded to a computer. Visit www.CourseSmart.com to learn more.

McGraw-Hill Create™ allows you to create a customized print book or eBook tailored to your course and syllabus. You can search through thousands of McGraw-Hill texts, rearrange chapters, combine material from other content sources, and include your own content or teaching notes. Create even allows you to personalize your book's appearance by selecting the cover and adding your name, school, and course information. To register and to get more information, go to www.mcgrawhillcreate.com



Changes to the 11th Edition

BROAD CHANGES

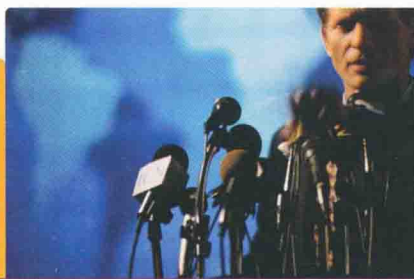
- Fallacies have been collected together into three new chapters:
 - Chapter 6: Relevance (Red Herring) Fallacies
 - Chapter 7: Induction Fallacies
 - Chapter 8: Formal Fallacies and Fallacies of Language
- Several additional fallacies are now covered, including:
 - Guilt by Association
 - Irrelevant Conclusion
 - Equivocation
 - Amphiboly
 - Accident
 - Generalizing from Exceptional Cases
 - Fallacious Appeal to Authority
 - Bandwagon Fallacy
 - Overlooking the Possibility of Random Variation
 - Overlooking the Possibility of Regression
 - Overlooking Prior Probabilities
 - Overlooking False Positives
 - Confusing Contraries and Contradictories
- A new section on the extreme rhetoric of demagoguery has been added, including the broad rhetorical techniques of
 - Otherizing
 - Demonizing
 - Fostering xenophobia
 - Fear and hate mongering
- The main forms of inductive reasoning have been consolidated into a newly written single chapter.
- A section on calculating probabilities has been added.
- Over 400 new exercises have been added, including several hundred new fallacy exercises.
- Hundreds of exercises from previous editions have been collected in the appendix.

CHAPTER-SPECIFIC CHANGES

- Chapter 1 (*What Is Critical Thinking, Anyway?*) contains new material on relativism and moral subjectivism, and adds discussion of confirmation bias. It contains 12 new exercises.

5

Rhetoric, the Art of Persuasion



Rhetoric, the venerable art of persuasive writing and speaking, has been one of the twin anchors of Western education since the days of Aristotle. The other, which also dates from Aristotle, is logic. You use rhetoric to win someone to your point of view; you use logic to demonstrate a claim or support it. These are separate enterprises. You can use logic to persuade people, but all too often they are persuaded by poor logic and unmoved by good logic. This is why education increasingly emphasizes critical thinking, to help people improve their logic and to help them distinguish between proof and persuasion.

In this chapter we do three things. First, we introduce the important concept of rhetorical force. Then we explain several rhetorical devices. Good writers and speakers employ many of these devices to make their cases as persuasive as possible. None of the devices, however, have logical force or probative weight ("probative" means tending to prove). We, as critical thinkers, should be able to recognize them for what they are—devices of persuasion.

Last, after we examine the various devices, we examine four principal techniques of demagoguery. Demagogues use inflammatory rhetoric to win acceptance for false and misleading ideas. They appeal to the fears and prejudices of an

Students will learn to . . .

1. Explain the concepts of rhetorical force and emotive power
2. Identify and critique the use of euphemisms, dysphemisms, weaslers, and downplayers
3. Identify and critique the use of stereotypes, innuendo, and loaded questions
4. Identify and critique the use of ridicule, sarcasm, and hyperbole
5. Identify and critique the use of rhetorical definitions, explanations, analogies, and misleading comparisons
6. Identify and critique the use of proof surrogates and repetition
7. Identify and critique the persuasive aspects of visual images
8. Detect the techniques used in the extreme rhetoric of demagoguery

- Chapter 2 (*Two Kinds of Reasoning*) contains 25 new exercises and reflects our current thinking on inference to the best explanation.
- Chapter 3 (*Clear Thinking, Critical Thinking, and Clear Writing*) cleans up material on the purposes/uses of definitions. The chapter has 21 new exercises.
- Chapter 4 (*Credibility*) updates sections on news media, bias, and advocacy television and contains 15 new exercises.
- Chapter 5 (*Rhetoric, the Art of Persuasion*) more carefully distinguishes rhetoric from logic, and persuasion from support and demonstration. We have simplified coverage of the basic rhetorical devices and (we think) provided better illustrations of some of them. We have added a new section on the extreme rhetoric of demagoguery, and have added many new exercises.
- Chapters 6 (*Relevance [Red Herring] Fallacies*) is entirely new. Most of the fallacies covered in this chapter were covered in previous editions, but the treatment here is

new. If you have used this textbook before, we recommend you read this chapter before using it. The chapter also contains numerous new exercises. You can find most of the exercises from previous editions in the new appendix at the end of this edition.

- Chapter 7 (*Induction Fallacies*) is also entirely new. As with Chapters 6 and 8, most of the fallacies in this chapter were covered in previous editions, but differently. The chapter contains all new exercises, but you can find most of the exercises from previous editions in the new appendix to this edition.
- Chapter 8 (*Formal Fallacies and Fallacies of Language*) is the third of four new chapters. It too includes fallacies not covered in previous editions, as well as others that were. We recommend you read the new material before assigning it. A section on consistency may be found in this chapter, and new exercises.
- Chapter 9 (*Deductive Arguments I: Categorical Logic*), along with the following chapter, is left unchanged but for minor edits, new exercises (a couple dozen in this chapter), and one major change in Chapter 10.
- Chapter 10 (*Deductive Arguments II: Truth-functional Logic*) has been left largely alone, something the great majority of our reviewers recommended. The exception is the removal of the section that provided a short alternative to treating simple deductive arguments. Most of that material is now found in the new Chapter 8. The chapter also has 38 new exercises.
- Chapter 11 (*Inductive Reasoning*) is the last of four new chapters. It is a comprehensive introduction to induction, including argument from analogy, generalization from samples, the statistical syllogism, causal statements,

principles of hypothesis formation, reasoning used in hypothesis confirmation, and probability calculation. Most of these topics were covered in previous editions, but were spread out over two chapters and explained differently. Also, we have included slightly new terminology here and there, and you might wish to become familiar with it before assigning the chapter.

- Chapter 12 (*Moral, Legal, and Aesthetic Reasoning*) includes a new case study. The Trayvon Martin/George Zimmerman case is described along with the Florida “stand your ground” law, and several questions relating it to material in this chapter are posed.



- Students rushing to register for Moore & Parker's course.
Inland Valley Daily Bulletin/Thomas R. Cordova; appeared in the Sacramento Bee

Acknowledgments

These include Laura Wilk, former Brand Manager for critical thinking; Sarah Remington, current Brand Manager for critical thinking; Susan Messer, our Development Editor and worrier-in-chief, whose novel, *Grand River and Joy*, may move you at a deeper level than will this text; Dawn Groundwater, Senior Director of Development; Jolynn Kilburg, Content Project Manager.

As we have stated repeatedly, the errors you run across in this book are the responsibility of either Moore or Parker, depending upon whom you are talking to. Certainly our errors are not the responsibility of the excellent people at McGraw-Hill who have helped us.

The guidance of the following reviewers of current and previous editions and others who have written to us has been invaluable:

Keith Abney, California Polytechnic State University, San Luis Obispo
James Anderson, San Diego State University
Sheldon Bachus
Patricia Baldwin, Pitt Community College
Tim Black, California State University, Northridge
Charles Blatz, University of Toledo
Christian Blum, Bryant & Stratton, Buffalo
Leah Blum
K. D. Borcoman, Coastline College/CSUDH
Keith Brown, California State University, East Bay
Melissa Brown
Lee Carter, Glendale Community College
Jennifer Caseldine-Bracht, Indiana University-Purdue University, Fort Wayne
David Connelly
Anne D'Arcy, California State University, Chico
Michelle Darnelle, Fayetteville State University
Ray Darr, Southern Illinois University, Edwardsville
William J. Devlin, Bridgewater State University
Paul Dickey, Metropolitan Community College
Sandra Dwyer, Georgia State University
Aaron Edlin, University of California, Berkeley
Ellery Eells, University of Wisconsin-Madison
Ben Eggleston, University of Kansas
Geoffrey B. Frasz, Community College of Southern Nevada
Josh Fulcher
Rory Goggins
Geoffrey Gorham, University of Wisconsin-Eau Claire
Joseph Graves, North Carolina A&T University
Dabney Gray, Stillman College
Patricia Hammer, Delta College
Anthony Hanson, De Anza College
Judith M. Hill, Saginaw Valley State University
Steven Hoeltzel, James Madison University

Steven R. Huizenga, Central Ohio Technical College
J. F. Humphrey, North Carolina A&T University
Amro Jayousi
Gary John, Richland College
Sunghyun Jung
Allyn Kahn, Champlain College
David Kelsey, Coastline Community College
David Keyt, University of Washington
William Krieger, California State University-Pomona
Michael LaBossiere, Florida A&M University
Sunita Lanka, Hartnell College
Bill Lawson
Marion Ledwig, University of Nevada-Las Vegas
Vern Lee, University of Phoenix
Terrance MacMullon, Eastern Washington University
Eric Parkinson, Syracuse University
Steven Patterson, Marygrove College
Jamie L. Phillips, Clarion University
Domenick Pinto, Sacred Heart University
Ayaz Pirani, Hartnell College
Ed Pluth, California State University, Chico
Scott Rappold, Our Lady of Holy Cross College
N. Mark Rauls, College of Southern Nevada
Victor Reppert, Glendale Community College
Matthew E. Roberts, Patrick Henry College
Greg Sadler, Fayetteville State University
Matt Schulte, Montgomery College
Richard Scott, Glendale Community College
Laurel Severino, Santa Fe Community College
Mehul Shah, Bergen Community College
Steven Silveria
Robert Skipper, St. Mary's University
Aeon J. Skoble, Bridgewater State University
Taggart Smith, Purdue University-Calumet
Richard Sneed, University of Central Oklahoma
Alan Soble, Drexel University
Chris Soutter
Anne St. Germain
James Stump, Bethel College
Lou Suarez
Susan Vineberg, Wayne State University
Michael Ventimiglia, Sacred Heart University
Helmut Wautischer, Sonoma State University
Dennis Weiss, York College of Pennsylvania
Amy Goodman Wilson, Webster University
Christine Wolf
Wayne Yuen, Ohlone College
Marie G. Zaccaria, Georgia Perimeter College

Over the years, our Chico State colleague Anne Morrissey has given us more usable material than anybody else. She's also given us more unusable material, but never mind. We've also had fine suggestions and examples from Curtis Peldo

of Chico State and Butte College; Dan Barnett, also of Butte College, has helped in many ways over the years.

We thank colleagues at Chico State, who are ever ready with a suggestion, idea, or constructive criticism; in particular, Marcel Daguerre, Randy Larsen, Becky White, Wai-hung Wong, Zanja Yudell, and Greg Tropea, whose death in 2010 left us saddened beyond words. Greg was a dear friend whose deep wisdom and quiet insight contributed significantly to our thinking over the course of many years. We are also grateful to Bangs Tapscott, Linda Kaye Bomstad, Geoff Bartells, and Jeffrey Ridenour for contributions both archival and recent.

Last, and especially, we give thanks to the two people who put up with us with patience, encouragement, and grace, Melinda Zerkle, and Marianne Moore.

A Note to Our Colleagues

In our view, *critical thinking* happens when you critique thinking. Our objective in this book is to set forth the fundamental criteria by which this may be accomplished—the standards that thinking must adhere to in any context, if it is to lead to truth.

Among the most important changes incorporated into this edition are these.

In past editions, we have scattered the discussion of fallacies throughout the book. In this edition, we bring the discussion together in three chapters. In addition, we have expanded the discussion. We have also replaced every fallacy exercise in previous editions—though you can still find the old exercises in an appendix at the end of the book.

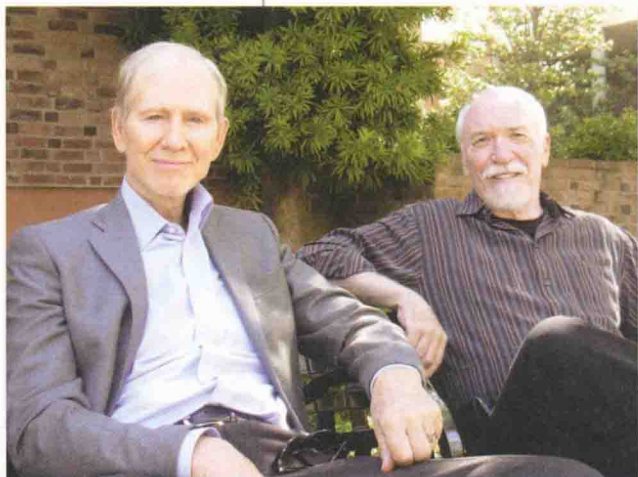
Further, we have consolidated discussion of inductive reasoning into a single chapter and have included new material on calculating probability.

Last edition, we added a section on ethos, pathos, and logos, as well as a section on cognitive biases. We think these two features, as well as our chapters on credibility and rhetoric, set this book off from many other critical thinking textbooks. Furthermore, in this edition, we have added a discussion of techniques universally present in the extreme rhetoric of demagogues. Being taken in by demagoguery is the hallmark of someone who does not think critically; the new discussion is overdue.

The previous edition of this book was integrated with *Connect*, McGraw-Hill's online learning platform. This edition is as well. *Connect* is keyed to the learning objectives found within this edition of the text. With *Connect*, students interact with each other and with the instructor online. If you are called upon to offer a completely online version of a critical thinking course, *Connect*, *LearnSmart*, and *SmartBook* offer you the tools to do so. We ourselves are fortunate enough not to have to do this, but we still use these resources for homework, content delivery, online testing, and data management. They may be particularly useful if you, like one of us, teaches a very large class.

We hope this edition of the text is useful to you, and we would appreciate your suggestions for improvement.

About the Authors



Brooke Moore and Richard Parker have taught philosophy at California State University, Chico, for almost as long as they can remember. Moore has been that university's Outstanding Professor, and both he and Parker have received top academic honors on their campus. Moore has seen several terms as department chair, and Parker has served as chair of the academic senate and dean of undergraduate education.

Moore has a bachelor's degree in music from Antioch College and a PhD in philosophy from the University of Cincinnati; Parker did his undergraduate degree at the University of Arkansas and his PhD at the University of Washington, both in philosophy.

Moore has finally given up being the world's most serious amateur volleyball player. He and Marianne share their house and life with several dogs. He has never sold an automobile.

Parker gets around in a 1962 MG or on a Harley softail. He plays golf for fun, shoots pool for money, and plays guitar for a semiprofessional flamenco troupe. He gets to Spain as often as he is able.

The two have remained steadfast friends through it all. They are never mistaken for one another.