

CRITICAL THINKING

10e



MOORE/PARKER



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Tenth
Edition

Critical Thinking

Brooke Noel Moore
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California State University, Chico

Chapter 13
by Nina Rosenstand and Anita Silvers





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This book is printed on acid-free paper.

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

ISBN: 978-0-07-803828-0

MHID: 0-07-803828-6

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Printing: *45# New Era Matte by R.R. Donnelley & Sons*

Cover image: ©Jose Luis Stephens/Radius Images/Getty Images; iPhone: © Kacper Kida / Alamy

Credits: The credits section for this book begins on page 535 and is considered an extension of the copyright page.

Library of Congress Cataloging-in-Publication Data

Moore, Brooke Noel.
Critical thinking / Brooke Noel Moore, Richard Parker. — 10th ed.
p. cm.
Includes bibliographical references and index.
ISBN-13: 978-0-07-803828-0 (alk. paper)
ISBN-10: 0-07-803828-6 (alk. paper)
1. Critical thinking. I. Parker, Richard (Richard B.). II. Title.
B105.T54M66 2012
160—dc22

2010050768

The Internet addresses listed in the text were accurate at the time of publication. The inclusion of a website does not indicate an endorsement by the authors or McGraw-Hill, and McGraw-Hill does not guarantee the accuracy of the information presented at these sites.

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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

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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
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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	80	50	240
Rovk, Sabina	80	10	80	50	197

* submitted past due date * exception * requires manual grading

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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 now dispersed throughout the chapters rather than grouped at the end, so that they link more tightly with the concepts as they are presented.
- Instructors can assess students' command of the material—online and at any time—so that they don't have to wait for a midterm to assess their own progress.
- Students can use the adaptive diagnostic program throughout the course to identify gaps in their understanding, and as a result can go into any test confident in their mastery of critical thinking skills.
- 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

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

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

Follow the instructions given in the preceding exercise.

Exercise 8-2

- ▲ 1. Students who wrote poor exams didn't get admitted to the program.
- ▲ 2. None of my students are failing.
- ▲ 3. If you live in the dorms, you can't own a car.
- ▲ 4. There are a few right-handed first basemen.
- ▲ 5. 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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