

The image is a book cover for 'Critical Thinking, 9th edition'. It features a photograph of a tree made of brown paper bags hanging from a branch, with a white plastic chair next to it. The background is a plain, light-colored wall. The authors' names, Brooke Noel Moore and Richard Parker, are printed in a dark green font at the top right. The title 'Critical Thinking' is in a large, dark brown font, and '9th edition' is in a smaller, orange font below it.

Brooke Noel Moore

Richard Parker

Critical Thinking

9th edition

Ninth
Edition

Critical Thinking

Brooke Noel Moore
Richard Parker

California State University, Chico

Chapter 12
with Nina Rosenstand and Anita Silvers



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THE TOP TEN FALLACIES OF ALL TIME

(For more details, see Appendix 2)

1. **Ad Hominem/Genetic Fallacy:** Disputing a position or argument by criticizing its source. Universally esteemed by talk radio hosts as the highest form of reasoning.
2. **Straw Man:** Disputing a position by exaggerating it, misrepresenting it, or otherwise distorting it. Putting negative spin on an opponent's ideas.
3. **"Argument" from Outrage:** Self-explanatory. Political talk shows are often reduced to shouting matches where guests compete for the loudest volume and sharpest insults.
4. **Scare Tactic:** Try to prove a point by scaring the reader or listener. We bet you can probably think of recent examples.
5. **Hasty Generalizing:** Having more confidence in a conclusion than you should, based on a small sample. For example, thinking that all baseball players use steroids simply because a few have developed bulging neck muscles and nasty tempers.
6. **Groupthink:** Allowing loyalty to one's group to cloud one's judgment. Ever notice how the refs call too many fouls on *our* team?
7. **Red Herring:** This attention-span fallacy works best on people who are unable to stay focused long enough to notice that the question answered was not the question asked.
8. **Wishful Thinking:** A refusal to acknowledge the truth. You might call it the Ostrich Fallacy.
9. **"Argument" from Popularity:** Believing that if "everybody" believes it, it must be true.
10. **Post Hoc, ergo Propter Hoc:** Just because two things happened around the same time doesn't mean one caused the other.

Preface

Jim Bull, Ken King, Jon-David Hague—we've gone through editors like corn meal goes through a goose. They were all good men. But this new guy, Mr. Georgiev, may be cut from stiffer cloth. We've never met him. His past is mysterious; we've heard stories that he was stolen away from another publisher, and we've also heard that he escaped single-handedly after being captured during the fighting in Chechnya. We don't know.

It only took one conference call, though, to learn he meant business. We weren't sure how to begin. Finally, Moore spoke: "Besides the usual updating, we have some serious changes for this edition," he said. Silence from the other end.

"We want to move a whole chapter," Parker added. Still no response. "And there are some important concepts that need dealing with in several chapters," Parker continued.

"Yeah," Moore chimed in. "We have a great new take on the two inductive argument chapters."

"And more stuff on visuals," Parker tacked on. A long moment of silence followed, then:

"Do it all," Georgiev said. "I'm sending Gouijnstook to ride herd on the project."

We were impressed with the decisiveness. We were even more impressed that he could pronounce the name of our developmental editor, Susan Gouijnstook. "Probably the linguistic training they get in the secret service or the KGB or whatever," Moore guessed.

And so, under the gentle urging and occasional whiplash of Susan G., and with some good advice from a phalanx of reviewers, we have once again produced what we hope is a better book than the one that went before. See the chapter-by-chapter listings following for a more detailed look at what's new.

WELCOME TO THE NINTH EDITION

Yes, we know: nine editions. It was a surprise the first time a young professor came up to us at a meeting and told us he was teaching from this book, and that its first edition had been his text when he took his own critical thinking course. Now, shockingly, we hear from students using the book whose *parents* used it as undergraduates. Good grief.

Keeping Up

We hope our efforts to keep the book topical, readable, and, most importantly, teachable have been responsible for the remarkable loyalty adopters have shown toward it over the years—we are both gratified and appreciative. This edition continues the process. Examples and exercises have been updated from one end of the book to the other.

As we get older (Moore comments on Parker's wrinkles; Parker wonders what became of Moore's hair), it is more and more important to remember that what's moderately recent news for us is ancient history for most of our students.

An incoming freshman in 2008 probably has memories of only one sitting president: George W. Bush. Bill Clinton is better known as Hillary's husband than as president. The name Jimmy Carter rings a bell with some of our students, but that's about all. This phenomenon requires a lot of replacement to keep names familiar to students cropping up in the book from time to time. (After sneaking Paris Hilton's name into the eighth edition three times, we were delighted to see her still in the news—make that “news.” She gets a photo this time.)

There are still some important names from the past—Ronald Reagan is now moving into mythology, but at least the name is familiar—and of course not *all* references require familiarity on the part of the reader. But we hope the effort to include familiar names will make it easier, as we said last time, to teach critical thinking without having to provide history lessons as well.

Visuals

In the previous edition, we went to full-color photographs and pointed out how such visual material could color our beliefs and attitudes just as it colors the image on the page. As previously indicated, we've extended that process in this edition, with ample evidence of how photos and other images can mislead us as well as teach us. There are more than 100 color photographs included in this edition—many of them the subject of analysis either in the caption or the accompanying text. We also have five photos of bears. Moore likes bears. There is also a separate section in Chapter 5 devoted to the manipulation of belief accomplished by the manipulation of images.

It's a political year as this edition emerges, and printed pages and television screens abound with images designed to make one candidate look better than another: Obama is presidential; no, Obama is wishy-washy. Hillary is experienced; no, Hillary is shrill. McCain is tough; no, McCain is corrupt. Kucinich is short. And so on. We try throughout the book to defeat the tendency of such packaging to influence what we think about its subjects.

But whether it's politics, advertising, or some other area in which visual images affect our judgment, we think you'll find material here that will help you make your point.

Presentation

We are constantly trying to seek the correct balance between explication and example. We rely both on our own classroom experience and on feedback from instructors who use the book in getting this balance right. In early editions, we sometimes overdid it with lecture-type explanations. Lately, we've relied more heavily on illustrations and, where possible, on real-life examples. This time, we've gone back and cleared up the treatment of several important concepts, but illustrations and examples continue to have a very strong presence. According to our own experience and that of many reviewers, the latter contribute greatly to the book's readability, especially when incorporated into real-life stories.

Critical thinking is neither the easiest subject to teach nor the easiest to learn. It incorporates so many different skills (see the list in Chapter 1) that even defining the subject is much more difficult than doing so for most others. But, in the long run, these skills are all aimed at making wise decisions about what to believe and what to do. Furthermore, we believe that the subject is best taught by integrating logic, both formal and informal, with a variety of other skills and topics that can help us make sound decisions about claims, actions, policies, and practices. As we have done from the beginning, we try here to present this material in realistic contexts that are familiar to and understandable by today's students.

Flexibility and Feedback

At well over five hundred pages, this is a long book, and we're pretty sure it's a rare instructor who tries to cover all the material in it in depth. Certainly neither of us does. In fact, there are probably a hundred different ways to teach a critical thinking course out of this book—and none of them the “right” way or the “wrong” way. There are also instructors who go straight from Chapter 1 (and now, maybe, from Chapters 1 and 2) to the two chapters on deductive logic, follow that with a few sessions on fallacies, and the term is over. On the other hand, there are a lot of adopters who never touch, or touch very lightly, the material on deductive logic. The two of us think the material on credibility and rhetoric is important. We also both do the chapters on inductive arguments and causal arguments, but after that our syllabi have little in common.

Of course a lot of instructors *do* follow the organization as we set it out, taking the chapters more or less in order. After considerable discussion, we've made a substantial change in this order: The material covered in what used to be Chapter 7 is now moved into a new Chapter 2. This results in a more extended treatment of arguments near the beginning of the book—a change that our reviewers have encouraged us to make. We really take seriously the need to make this material as easy to teach as possible, and when we're convinced restructuring is called for, we are willing to do it.

As a matter of fact, we'd be interested in hearing how other instructors structure their courses; we can pass along suggestions, and we might get some ideas on the arrangement of topics for future editions.

Boxes

We've stuck with the scheme introduced in the eighth edition, in which boxes are sorted into different categories. Some take material covered to a deeper level, some provide real-life illustrations, some come directly from the media, and still others illustrate features of our common language. Obviously, these are not neat categories; they overlap considerably, and some boxes could fit as well in one slot as another. Still, the organization sorts the items out in a preliminary way and should make examples easier to find.

Exercises

We have always tried to overdo it with exercises. Not many instructors will need all of the (almost 2,000) exercises provided in the text itself, nor the hundreds more exercises and test questions provided on the online Learning Center (www.mhhe.com/mooreparker9e). But students will benefit from regular practice in applying their skills—it gives them a chance to become actively involved in the learning process—and the exercises are designed to enhance that involvement. Many exercises suggest or require that students work in groups. Our experience is that this sort of collaboration works quite well and is enjoyable for students as well. Sometimes, it can pay to work exercises *before* explaining the material; the explanation then affords an occasional “Aha!” moment.

Answers, Suggestions, and Tips

The answer section in the back of the book provides answers to those exercises marked with a triangle. This section also includes discussions that expand on material in the exercises and sometimes in the text itself. Students can use this section to check their work, and instructors may find it useful as a teaching aid and a foil for their own explanations and comments. You'll also find a joke or two back there.

Appendixes

Appendix 1: Essays for Analysis

This section has proved quite successful in our own classes and in those of nearly all our reviewers and correspondents. It includes essays that illustrate many of the topics covered in the book. These essays provide excellent material for analysis, in-class discussion, and out-of-class writing assignments.

The appendix begins with an essay we call “Three strikes and the Whole Enchilada.” In it, we illustrate how several different critical thinking skills and concepts occur in a discussion of a real-life issue. It can serve as a review for several chapters in the book.

The second essay has served well as a “model essay.” We’ve been asked before to offer examples of good arguments as well as bad ones, and there are some pretty good arguments given here, even though the topic is highly controversial and the position taken is not a popular one. We included this essay in the previous edition, and it was well enough accepted to offer it again because it fills the bill so well. It provides some well-reasoned arguments in support of its controversial conclusion about the 9/11/01 terrorist attacks. There are as many uses for this essay, we suspect, as there are instructors of critical thinking courses.

With respect to the remaining essays, when we’ve heard from instructors that they’d like to see this one or that one kept, we’ve tried to comply. You will find some new ones back there, however.

Online Unit Appendix 2: The Scrapbook of Unusual Ideas

A compendium of topics to generate discussion or to adapt for homework assignments or in-class material. Don’t have time to prepare a lecture? Here’s your answer: Browse this section online, pull out an interesting issue or two, and have people take positions and defend them with arguments.

Front and Back Covers

A streamlined list of the Top Ten Fallacies appears inside the front cover. The back cover displays some common argument patterns from both categorical logic and truth-functional logic. It makes for quick and easy reference when students are working in Chapters 8 and 9.

WHAT’S NEW: CHAPTER BY CHAPTER

Chapter 1: Critical Thinking Basics

There are a lot of changes here, from the addition of a box listing important critical thinking skills to a radical treatment of subjectivism. Regarding the latter: we don’t mention it. Actually, we don’t use the *word* here; we treat the subject in the context in which it most frequently occurs, that of value judgments. Our approach is similar to that in the previous edition in that it relies on what kinds of claims we allow people to get away with and what kinds we don’t. We hope this treatment allows dismissal of the naive form of subjectivism that beginning students often bring with them to class and that it does so without requiring wading through half a course in epistemology.

Chapter 2: Two Kinds of Reasoning

This is the former Chapter 7, brought forward to provide a better transition from Chapter 1 to the last part of the book on arguments, since many instructors arrange their courses that way. The induction/deduction distinction was

redone in the previous edition, and it is tweaked again here. We think it will be consistent with most instructors' intuitions and easy to teach as well.

Chapter 3: Clear Thinking, Critical Thinking, and Clear Writing

Besides giving a weightier treatment to vagueness and ambiguity (topics much more important than many people realize—as we show in the chapter), we separate out generality as a form of imprecision different from vagueness.

Chapter 4: Credibility

We continue to think that this is one of the most important topics we cover. We emphasize the idea of an interested party's claims being naturally more suspect than those of a disinterested party. Our view of much of the popular news media continues to deteriorate; we explain why in this chapter. We also include expanded coverage of credibility on the Internet, including blogs and the ubiquitous Wikipedia.

Chapter 5: Persuasion Through Rhetoric

We've moved the section on misleading comparisons from the former Chapter 2 to this chapter, fitting it in with rhetorical analogies and comparisons. As part of our continuing emphasis on visual persuasion, this chapter's section on visual images now gets down to concrete examples of image manipulation. Examples are shown and discussed in terms of both what effect is being sought and the technical means of going about it. You might be surprised at some of the examples.

Chapters 6 and 7: More Rhetorical Devices and Fallacies

Updated with examples from politics, the media, and image versions of certain fallacies.

Chapters 8 and 9: Categorical and Truth-Functional Logic

Both chapters are largely unchanged, except for updated box material and the placing of the t-f logic/electrical circuit isomorphism in a large box so as not to affect continuity of the chapter. Our reviewers generally insist we leave well enough alone in these chapters—and we're grateful.

Chapter 10: Three Kinds of Inductive Arguments

You'll find a wholesale revision of inductive reasoning in this chapter, including (for the first time) treatment of the inductive syllogism. We explain strength of an argument as relative to the degree the premises increase the probability of the conclusion (a subtle but significant different—and significantly better—way of doing it). Hasty and biased generalization are looked at differently, and you'll find a new discussion of the difference between inductive and deductive conversions. (We think this may be the first place such a distinction has been described.) Finally, you'll find a treatment of alternative uses of analogy, as, for example, in legal reasoning.

Chapter 11: Causal Explanation

This edition brings a whole new treatment of explanations and cause and effect, including such topics as distinguishing different kinds of explanations, the notion of explanatory adequacy, causal mechanisms, the Best Diagnosis Method, inference to the best explanation, experimental confirmation,

explanations and excuses, statistical regression, cause and effect in legal reasoning, and even more.

Chapter 12: Moral, Legal, and Aesthetic Reasoning

The coverage of moral reasoning is improved in this new version, and the coverage of legal reasoning is expanded.

BEYOND THE BOOK: SUPPLEMENTS

Online Learning Center

Student Resources

Go to www.mhhe.com/mooreparker9e for interactive exercises and resources for students.

Instructor Resources

Access instructor tools on www.mhhe.com/mooreparker9e. This site includes fully updated Instructor's Manual, Test Bank, PowerPoint Presentations, and Classroom Performance System. The Instructor's Manual (which is getting a good housecleaning for this edition!) provides additional answers to many exercises not answered in the book as well as many more examples, exercises, and test questions. Here and there, we include hints, strategies, lecture topics, tangents, and flights of fancy.

Essay-Grading Rubric

Grading rubrics are widely used in schools and are found increasingly on the college scene as well. Students seem to like rubric-based grading. They believe it reduces the subjective elements involved in evaluating essays. Our rubric is tucked into *The Logical Accessory*.



■ Students rushing to register for Moore and Parker's course. *Inland Valley Daily Bulletin*/Thomas R. Cordova; appeared in the *Sacramento Bee*, 14 October 2006

Acknowledgments

Despite the efforts of a lot of people, in a book this big and this complicated, errors slip by. Any you run across are the responsibility of either Moore or Parker, depending upon whom you happen not to be talking to. Certainly, errors are not the responsibility of the excellent people at McGraw-Hill who have helped us. These include the mysterious Mr. Georgiev, the head of philosophy and we don't know what else; our development editor, Susan Gouijnstook, who pleads, threatens, and hand-holds with the best of them; Chanda Feldman, our production editor, who had to sort out and put together the many pieces that make up the book; April Wells-Hayes, our copy editor, whose fixes and suggestions make the book more readable than it otherwise would have been; and Brian Pecko, who helped us track down photographs for this edition.

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About the Authors

Both Moore and Parker have taught philosophy at California State University, Chico, for more years than they care to count. Aside from courses in logic and critical thinking, Moore also tries to teach epistemology and analytic philosophy. He is also past chair of the department and once was selected as the university's Outstanding Professor. Parker's other teaching duties include courses in the history of modern philosophy and philosophy of law; he has chaired the academic senate and once upon a time was dean of undergraduate education.

Moore majored in music at Antioch College; his Ph.D. is from the University of Cincinnati. For a time he held the position of the world's most serious amateur volleyball player. He and Marianne currently share their house with three large dogs. Moore has never sold an automobile.

Parker's undergraduate career was committed at the University of Arkansas; his doctorate is from the University of Washington. He drives a '62 MG, rides a motorcycle, plays golf for fun, shoots pool for money, and is a serious amateur flamenco guitarist. He and Alicia live part of the year in southern Spain.

Moore and Parker have been steadfast friends through it all.



Brooke Noel Moore and Richard Parker, not necessarily in the order pictured above.

To Alexander, Bill, and Sherry,
and also to Sydney, Darby,
Peyton Elizabeth, and Griffin

This is not entirely a work of nonfiction.

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