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Critical Thinking 13e

Brooke Moore Richard Parker

Mc Graw Hill

Thirteenth Edition

Critical Thinking

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with help in Chapter 12
from Nina Rosenstand and Anita Silvers

Mc Graw Hill

CRITICAL THINKING

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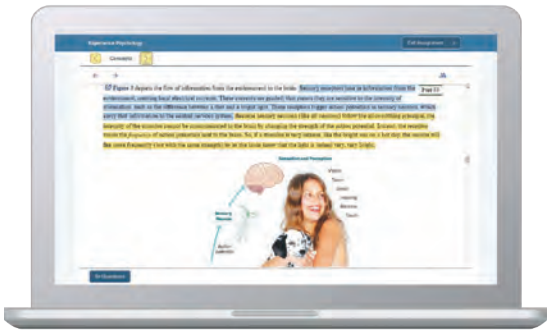

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Critical Thinking . . . Skills for

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- Examples and exercises are drawn from today's headlines.
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impossible to think that good judgment or rational thought would lead them to such excess.*

Yet another possible source of psychological distortion is the **overconfidence effect,** one of several self-deception biases that may be found in a variety of contexts.** If a person estimates the percentage of his or her correct answers on a subject, the estimate will likely err on the high side–at least if the questions are 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 characteristics, 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.‡ 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.‡‡

■ Does Kim Kardashian wear too much makeup? The issue is subjective, or, as some people say, "a matter of opinion."

Stephen Lovekin/WWD/Shutterstock

*Jamey Keaton, Associated Press. Reported in *The Sacramento Bee,* Thursday, March 18, 2010. Did the subjects suspect the shocks weren't real? Their statements afterward don't rule out the possibility but certainly seem to suggest they believed they truly were administering painful electrical shocks to the actor.

**However, a universal tendency among humans to irrationally exaggerate their own competencies hasn't been established. for an online quiz purportedly showing the overconfidence effect, see www.tim-richardson.net/joomla15/finance-articles-profmenu-70/73-over-confidence-test.html.

†See Sarah lichtenstein and other authors, " Calibration of Probabilities: The State of the Art to 1980, " in Daniel Kahneman, Paul Slovic, and Amos Tversky, *Judgment under Uncertainty: Heuristics and Biases* (Cambridge, England: Cambridge University Press, 1982), 306–34.

††This possibility was proposed by Gad Saad, *Psychology Today,* www.psychologytoday.com/blog/homo-consumericus/200901/self-deception-american-idol-is-it-adaptive.

‡See Mark D. Alicke and other authors in "The Better-Than-Average Effect," in Mark D. Alicke and others, *The Self in Social Judgment:* Se

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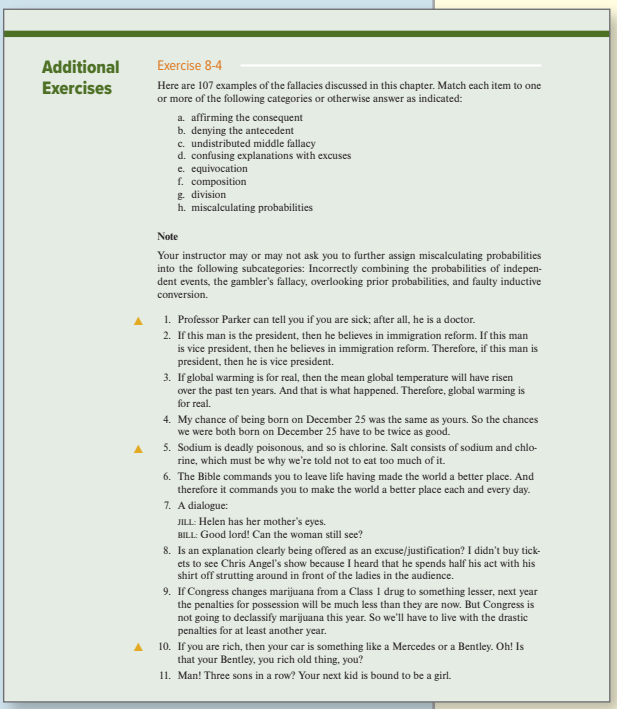


Additional Exercises

Exercise 8-4

Here are 107 examples of the fallacies discussed in this chapter. Match each item to one or more of the following categories or otherwise answer as indicated:

a. affirming the consequent
b. denying the antecedent
c. undistributed middle fallacy
d. confusing explanations with excuses
e. equivocation
f. composition
g. division
h. miscalculating probabilities

Note

Your instructor may or may not ask you to further assign miscalculating probabilities into the following subcategories: Incorrectly combining the probabilities of independent events, the gambler's fallacy, overlooking prior probabilities, and faulty inductive conversion.

▲ 1. Professor Parker can tell you if you are sick; after all, he is a doctor.
2. If this man is the president, then he believes in immigration reform. If this man is vice president, then he believes in immigration reform. Therefore, if this man is president, then he is vice president.
3. If global warming is for real, then the mean global temperature will have risen over the past ten years. And that is what happened. Therefore, global warming is for real.
4. My chance of being born on December 25 was the same as yours. So the chances we were both born on December 25 have to be twice as good.
▲ 5. Sodium is deadly poisonous, and so is chlorine. Salt consists of sodium and chlorine, which must be why we're told not to eat too much of it.
6. The Bible commands you to leave life having made the world a better place. And therefore it commands you to make the world a better place each and every day.
7. A dialogue:
JILL: Helen has her mother's eyes.
BILL: Good lord! Can the woman still see?
8. Is an explanation clearly being offered as an excuse/justification? I didn't buy tickets to see Chris Angel's show because I heard that he spends half his act with his shirt off strutting around in front of the ladies in the audience.
9. If Congress changes marijuana from a Class 1 drug to something lesser, next year the penalties for possession will be much less than they are now. But Congress is not going to declassify marijuana this year. So we'll have to live with the drastic penalties for at least another year.
▲ 10. If you are rich, then your car is something like a Mercedes or a Bentley. Oh! Is that your Bentley, you rich old thing, you?
11. Man! Three sons in a row? Your next kid is bound to be a girl.

Preface

It is remarkable how much university students have changed over the decades since we first began teaching in our 20s. Back then they called us by our first names or even "Dude." Nowadays they call us "Sir," as in, "Sir, do you need help?"

They are also better informed. Thanks to Instagram and Snapchat and other sources of breaking news, they know what friends are doing and thinking at any given moment.

Educators seem not to agree on what exactly critical thinking is, though they do agree that, whatever it is, we can use more of it. They also agree that being informed is important, though what they think is important to be informed about doesn't necessarily include how Emily did her nails or what Jacob thinks about the new Starbucks cups.

You have to wonder. How can teachers compete with such stimulating information? Critical thinking instruction is fairly abstract. It doesn't deal with topics. In this book, we don't discuss whether someone's a good president or if global climate is changing. Rather, we offer instruction on good and bad reasoning. We try to help readers develop facility in spotting irrelevancies, emotional appeals, empty rhetoric, and weak evidence. To compete with distractions, we offer examples and exercises we hope first-year university students can understand and relate to, and we try to be as concise and readable as possible.

What, by the way, is our definition of critical thinking? This is something we go into more in Chapter 1; for now, let's just point out that critical thinking is aimed at making wise decisions about what to think and do. This book is not *about* critical thinking as much as it is a book *in* critical thinking. We try to provide guided practice in what we think are the most important critical thinking skill sets. Although as authors we differ somewhat in our emphasis, we both agree (as do many instructors) that drill-and-practice is useful in improving students' critical thinking ability. Online technology can be helpful when it comes to drill-and-practice, as well as in enabling students to learn at their own pace. (Details coming up shortly). But if you don't use online assignment, practice, and assessment platforms such as ours, this text contains hundreds and hundreds of exercises of the sort that (we think) can be applied directly to the world at large. Exercise questions are all answered in the answer sections at the end of each chapter.

If you use this text or the online peripherals, we would appreciate hearing from you. We can both be contacted through McGraw-Hill Education or by way of the philosophy department at Chico State.

Changes to the 13th Edition

A friend recently asked us which critical thinking skills we worry about people not having. At this point in time, we admit we are especially concerned about information-acquisition skills, the skills people use to acquire veridical information and to weed out bogus news sources, misinformation, flimflam, and snake oil. There is much talk these days about people lacking these skills, and everyone seems to assume the problem lies with the people on the other side of the political aisle. Maybe both sides are right.

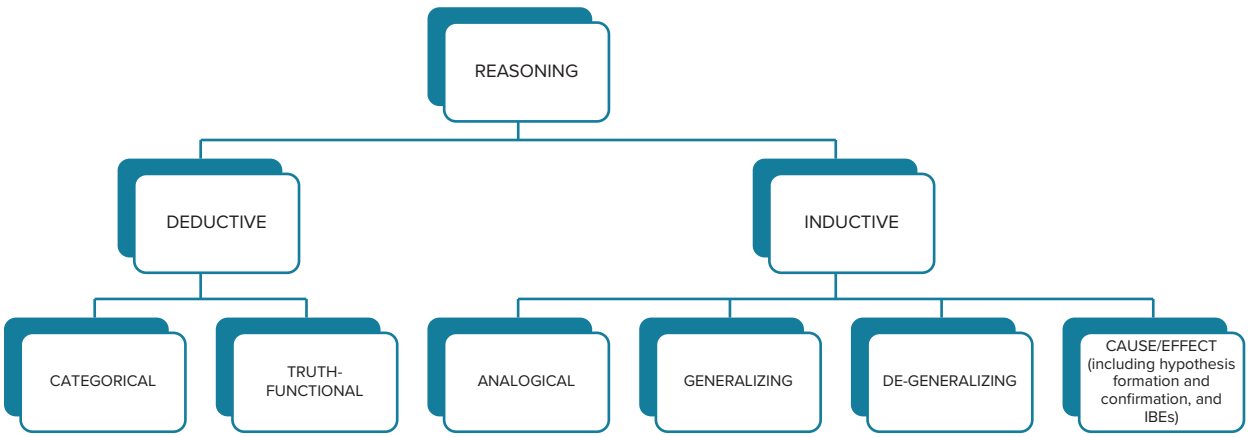
So, important revisions in this edition are aimed at improving information-acquisition skills, and these revisions are found in Chapter 4 (Credibility). This chapter is about recognizing dubious claims and sources. In it you will find our long-standing analysis of credibility as having two parts, the believability of claims and the credibility of sources. In this edition, we have expanded on the credibility of mainstream news, social media, and other internet sources of information.

A society could become mis- or ill-informed through indifference or overt censorship, to name two possibilities. But it could also get that way if enough people obtain information primarily from sources assumed to be accurate and comprehensive, but which in fact are not. Nobody wants to be misled, but most of us do like information that fits with our view of the world, especially if it reinforces our pre-existing opinions (or riles us up about people who don't share our views). Motivated information-seeking (seeking information for the purpose of confirming opinions we already hold) can lead people to news sources that tailor the news for their audience. If enough people get tailored news, society may become divided not only as to which sources are regarded as authoritative but also as to what are and are not facts. Some of the reasons for thinking such divisions exist today are discussed in Chapter 4. In that chapter, we also put forth what we think is a non-partisan recommendation for obtaining legitimate news.

Another important batch of changes in this edition relates to inductive reasoning, which is introduced in Chapter 2 and examined in more detail in Chapter 11. We now divide inductive reasoning into four fundamental kinds: generalizing, de-generalizing (which is the opposite of generalizing), analogical reasoning, and cause-effect reasoning. Other forms of inductive reasoning commonly discussed in texts such as this, including notably sign arguments, arguments from examples, and inferences to the best explanation, can be treated as one or another of the four basic kinds of inductive reasoning (as we explain). Our reasoning-hierarchy is this:

People convince themselves or remain convinced of what they want to believe—they seek out agreeable information and learn it more easily; and they avoid, ignore, devalue, forget, or argue against information that contradicts their beliefs.

—Julie Beck, "This article won't change your mind," *The Atlantic*



We have also expanded the section on how to tell the difference between deductive and inductive arguments, including the fact that if an argument has a subjective judgement as its conclusion, then (for reasons we explain) it is unlikely to be inductive.

In Chapter 1, we have revised and expanded our treatment of the distinction between subjective judgments and objective claims. As usual, most of our revisions result from questions and difficulties that have actually arisen in our own teaching experience, as well as from feedback from readers.

And as always, we have updated the social, political, and cultural backdrop for the book and have revised exercises to keep them relevant. Nowadays students stare blankly if you mention a carburetor or refer to TV sets that don't have remotes; we try to make the book about the world they know. Or rather the world we think they know.

■ World leaders celebrate worldwide rise in critical thinking.

Edgar Su/Reuters

Acknowledgments

You may find mistakes in this book. Who made them? It depends on whom you ask. Moore blames Parker, and Parker blames Moore. We certainly don't blame the people who we are about to list, who have helped us enormously in our effort to improve. In a previous edition, we tried to blame everything on Terry McGraw, but someone said we couldn't do that.

For thanks, we begin with our caring brand manager Alex Preiss and our astute and amazing production manager, Sarah Paratore. Alex provided the broad picture of what this edition should be; Sarah worked out the details. We also want to thank our entire McGraw Hill Education team, including Traci Vaske, Danielle Clement, Nancy Baudean, Deb Hash, and David Hash.

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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. We are also grateful to Bangs Tapscott, Linda Kaye Bomstad, Ann Bykerk-Kauffman, Sue Patterson, and Jeffrey Ridenour for contributions both archival and recent. David Connelly, from Cayuga Community College, helped us rethink the objective/subjective distinction; we appreciate that.

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

About the Authors

Courtesy of Brooke Moore

Courtesy of Richard Parker

Brooke Moore and Richard Parker have taught philosophy at California State University, Chico, for a long time, since 1970 in Moore's case and since 1972 in Parker's. Moore has a bachelor's degree in music from Antioch College and a PhD in philosophy from the University of Cincinnati; Parker received his undergraduate degree from the University of Arkansas and his PhD from the University of Washington, both in philosophy.

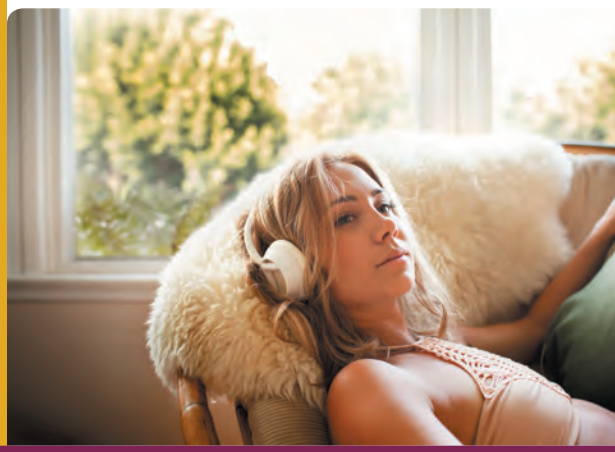
After all this time and all the collaboration, Moore and Parker are still on speaking terms. In fact, they are close friends.

To:
Alexander and Levi
From Richard

Sherry and Bill; and Sydney, Darby,
Peyton Elizabeth, and Griffin
From Brooke

This is not entirely a work of nonfiction.

1 Driving Blindfolded



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Students will learn to . . .

1. Define critical thinking
2. Explain the role of beliefs and claims in critical thinking
3. Identify issues in real-world situations
4. Recognize an argument
5. Define and identify the common cognitive biases that affect critical thinking
6. Understand the terms "truth" and "knowledge" as used in this book

"What gets us into trouble is not what we don't know. It's what we know for sure that just ain't so."

—Not by Mark Twain, apparently

For a while there, the Bird Box challenge was providing lots of great examples of poor critical thinking. In case you forgot (or never knew in the first place), the Bird Box challenge came from the movie *Bird Box,* in which Sandra Bullock and others must wear blindfolds when outside, to protect them from a force that makes people kill themselves. The challenge went viral and people had friends video them doing all sorts of things while blindfolded. One teenager in Utah attempted to drive blindfolded and crashed into another vehicle. Police reminded people not to wear a blindfold when they were driving.*

This book is about critical thinking. We are going out on a limb here, but we bet you don't need this book to avoid driving blindfolded. If you do drive that way, the book may not help you.

So what is critical thinking? Almost everyone would agree, driving blindfolded is *not* thinking critically—but what exactly *is* critical thinking? Why do people say it is so important?

Yes, critical thinking involves considering the possible outcomes of an action, such as what might happen if you drive down this street blindfolded. But it involves more. Speaking generally, just thinking and doing stuff doesn't amount to thinking critically. Critical thinking kicks in when we *evaluate* beliefs and actions—when

*https://www.huffingtonpost.com/entry/utah-teen-crash-bird-box-challenge_us_5c3908cae4b01c93e009e011

we *critique* them. *Critical thinking is thinking that critiques.* To critique something is to evaluate it according to standards of some sort. So you can think critically about anything it makes sense to evaluate according to standards. Among the most important things you can critique—and what we are concerned with in this book—is *reasoning,* the thinking that comes into play when we form opinions, make judgments, arrive at decisions, develop plans, come to conclusions, offer hypotheses, and the like. So for our purposes, *critical thinking is reasoning evaluation.* We engage in it when we consider whether reasoning, broadly construed, passes muster by the standards of logic and good sense.

If you are a student at a college or university, chances are your *instructor* will think critically about the work you turn in. He or she will offer critical commentary on what you submit. If you want to think critically, you have to do this yourself to your own work. Try to leave your instructor with nothing to say except, "Good job!"

It can be the same in the workplace or in the military. You might perhaps be asked to solve a problem or troubleshoot a situation or come up with a recommendation, or any number of other things that involve arriving at conclusions. Your colleagues or friends or supervisors may give you feedback or commentary. They are thinking critically about your reasoning.

Of course, if you are so brilliant that you never err in your thinking, then you may not need feedback from others. Unfortunately, there is evidence that people who think they are experts are more likely to believe they know things they don't really know.* Anyway, almost everyone makes mistakes. We overlook important considerations, ignore viewpoints that conflict with our own, or in other ways don't think as clearly as we might. Most of us benefit from a little critical commentary, and this includes commentary that comes from ourselves. The chances of reaching defensible conclusions improve if we don't simply conclude willy-nilly, but reflect on our reasoning and try to make certain it is sound.

Being able to think critically can be useful in another way. Others try to influence what we think and do. There is much to be said for being able to critically evaluate a sales pitch, whether it comes from a stranger or a friend, or is about kitchen gadgets or for whom to vote for president. Critical thinking helps us recognize a scam when we see it.

Some educators equate critical thinking with problem solving or innovative thinking ("thinking outside the box"). This is fine, though at a certain point proposed solutions and possible innovations have to be tested. That's where critical thinking comes in.

This is a book in *critical* thinking because it offers guidance about *critiquing* thinking. The book and the course you are using it in, if you are, explain the minimum criteria of good reasoning—the requirements a piece of reasoning must meet if it is worth paying attention to, *no matter what the context.* Along the way we will explore the most common and important obstacles to good reasoning, as well as some of the most common mistakes people make when coming to conclusions. Other courses you take offer refinements. In them you will learn what considerations are important from the perspective of individual disciplines. But in no course anywhere, at least in no course that involves arriving at conclusions, will thinking that violates the standards set forth in this book be accepted.

If it does nothing else, what you read here and learn in your critical thinking course should help you avoid at least a few of the more egregious common errors people make when they reason. If you would have otherwise made these mistakes, you will

Critical thinking is thinking that critiques. In this book we critique *reasoning,* broadly construed—the thinking used in arriving at decisions, developing plans, coming to conclusions, offering hypotheses, coming up with solutions, and so forth.

**Scientific American Mind,* January/f ebruary 2016, p . 13.

have become smarter. Not smarter in some particular subject, mind you, but smarter in general. The things you learn from this book (and from the course you may be reading it for) apply to nearly any subject people can talk or think or write about.

To a certain extent, questions we should ask when critiquing our own—or someone else's—thinking depend on what is at issue. Deciding whom to vote for, whether to buy a house, whether a mathematical proof is sound, which toothpaste to buy, or what kind of dog to get involve different considerations. In all cases, however, we should want to avoid making or accepting weak and invalid arguments. We should also avoid being distracted by irrelevancies or ruled by emotion, succumbing to fallacies or bias, and being influenced by dubious authority or half-baked speculation. These are not the only criteria by which reasoning might be evaluated, but they are central and important, and they provide the main focus of this book.

Critical Thinking, the Long Version

The Collegiate I earning Assessment (CI A) Project of the Council for Aid to Education has come up with a list of skills that covers almost everything your authors believe is important in critical thinking. If you achieve mastery over all these or even a significant majority of them, you'll be well ahead of most of your peers—and your fellow citizens. In question form, here is what the council came up with:

How well does the student

- determine what information is or is not pertinent;
- distinguish between rational claims and emotional ones;
- separate fact from opinion;
- recognize the ways in which evidence might be limited or compromised;
- spot deception and holes in the arguments of others;
- present his/her own analysis of the data or information;
- recognize logical flaws in arguments;
- draw connections between discrete sources of data and information;
- attend to contradictory, inadequate, or ambiguous information;
- construct cogent arguments rooted in data rather than opinion;
- select the strongest set of supporting data;
- avoid overstated conclusions;
- identify holes in the evidence and suggest additional information to collect;
- recognize that a problem may have no clear answer or single solution;
- propose other options and weigh them in the decision;
- consider all stakeholders or affected parties in suggesting a course of action;
- articulate the argument and the context for that argument;
- correctly and precisely use evidence to defend the argument;
- logically and cohesively organize the argument;
- avoid extraneous elements in an argument's development;
- present evidence in an order that contributes to a persuasive argument?

www.aacu.org/peerreview/pr_sp07_analysis1. cfm.

■ Judges on *So You Think You Can Dance* critique the singers on the show, but this book is mainly about how to critique reasoning.

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BELIEFS AND CLAIMS

Why bother thinking critically? The ultimate objective in thinking critically is to come to conclusions that are correct and to make decisions that are wise. Because our decisions reflect our conclusions, we can simplify things by saying that *the purpose of thinking critically is to come to correct conclusions.* The method used to achieve this objective is to evaluate our thinking by the standards of rationality. Of course, we can also evaluate someone else's thinking, though the objective there might simply be to help the person.

When we come to a conclusion, we have a belief. Concluding involves believing. If you *conclude* that the battery is dead, you *believe* that the battery is dead. Keeping this in mind, let's define a few key terms.

A belief is, obviously, something you believe. It is important to understand that a belief is *propositional,* which means it can be expressed in a declarative sentence—a sentence that is either true or false. A good bit of muddleheaded thinking can be avoided if you understand that beliefs are propositional entities, but more on this later.

As we use these words, *beliefs* are the same as *judgments* and *opinions.* When we express a belief (or judgment or opinion) in a declarative sentence, the result is a *statement* or *claim* or *assertion,* and for our purposes these are the same thing. Claims can be used for other purposes than to state beliefs, but this is the use we're primarily concerned with.

Beliefs and claims are *propositional:* they can be expressed in true-or-false declarative sentences.

Objective Claims and Subjective Judgments

Before we say something more about conclusions, we should make a distinction between objective claims and subjective judgments. An **objective claim** has this characteristic:

Whether it is true or false is independent of whether you or anyone else thinks it is true or false. "There is life on Mars" is thus an objective claim, because whether or not life exists there doesn't depend on whether you (or anyone else) thinks it does. If you (or anyone else) suddenly believes there is life on Mars, that doesn't mean that suddenly there would be life on Mars. Likewise, "God exists" is an objective claim because whether it is true doesn't depend on what you (or anyone else) thinks.

Maybe he should have read this book?

Brilliant Eagle/Alamy Stock Photo

Although objective claims are either true or false, we may not know which a given claim is. "Portland, Oregon, is closer to the North Pole than to the equator" is true. "Portland, Oregon, is closer to the equator than to the North Pole" is false. "More stamp collectors live in Portland, Oregon, than in Portland, Maine" is an objective claim whose truth or falsity is not known, at least not by us.

Not every declarative sentence expresses an objective claim, of course. "Bruno Mars has swag" is not objective, for it lacks the characteristic mentioned previously. That is, whether or not someone has swag *does* depend on whether you think he does. If nobody thinks Bruno Mars has swag, then he doesn't. If Parker thinks he does and Moore doesn't, you will say that Parker and Moore are each entitled to their opinions. Whether someone has swag is in the eyes of the beholder.

Judgments like "Bruno Mars has swag" are **subjective.** Whether a subjective judgment is true or false is *not* independent of whether you think it is true or false. On the contrary, a subjective judgment about something is true if you think it is true. Examples of subjective claims would be judgments of taste, such as "Rice vinegar is too sweet." Is rice vinegar too sweet? It depends on what you think. Some kinds of comparisons also are subjective. Is snowboarding more fun than skiing? Again, it depends on what you think, and there is no further "truth" to consider. However, many statements contain both objective and nonobjective elements, as in "Somebody stole our nifty concrete lawn duck." Whether the lawn duck is *concrete* is an objective question; whether it is *our* lawn duck is an objective question; and whether it was *stolen* is an objective question. But whether the stolen concrete lawn duck is *nifty* is a subjective question.

Here is an important point. If you think a subjective judgment is true, you can't be mistaken. If Parker thinks that the tomato he is eating tastes great, his judgment "this tastes great," as made by him, cannot be incorrect. If Parker says, "this tomato tastes great but I might be wrong about that," we wouldn't understand him.

Let's take an extreme case. Parker peels a lemon, takes a bite, and says, "This tastes sweet." Let's assume for the moment that nobody else on the planet would agree that this lemon tastes sweet. Would that mean that Parker's judgment is incorrect? Not at all. It would just mean that what Parker finds sweet is very odd, not that Parker is mistaken.

Because a subjective judgment cannot be mistaken, it makes no sense to think of it as probable or likely, or improbable or unlikely. If Parker says of the tomato he is eating, "this probably tastes great," or "this tastes great but there is a chance I am mistaken," or "it isn't very likely that this tastes great," we wouldn't know what to make of his remark.

Finally, because a subjective judgment cannot be viewed as probably true or as probably false, it isn't the sort of thing that can be thought of as supportable by evidence. Evidence is something that raises the probability a claim is true. Subjective judgments are not susceptible to varying degrees of probability. If it makes no sense to think

of a remark as probable to a greater or lesser extent, then it makes no sense to think of it as something for which evidence as to its probable truth might be produced. If Parker says that the tomato he is eating tastes great, we might ask him what makes him think that, but if we press him for *evidence* he wouldn't know how to respond. He might have *reasons* for thinking that the tomato he is eating tastes great. He might say, for example, that it tastes great because it isn't bitter. But that is not *evidence* that it tastes great. It is an explanation of *why* he thinks it tastes great. Parker is telling us what *causes* him to think that the tomato tastes great.

Of course, as a *practical matter,* many *objective* claims also cannot be supported by evidence. Is there life beneath the surface of the rocky planet that circles Proxima Centauri? We currently cannot obtain evidence that bears on the question. But when it comes to Parker's judgment that the tomato he is eating tastes great, it's not that he cannot presently provide evidence of its truth, it's that it makes no sense to even think of providing evidence of its truth.

However—and this is worth highlighting—the fact that subjective judgments cannot be mistaken, are not subject to probability quantifications, and are not the sort of thing for which evidence could be given, should not be invoked to dismiss any particular statement as unworthy of discussion. In the first place, it isn't always clear whether a given remark actually is a subjective judgment. As we shall see, for example, moral judgments might not be subjective despite widespread belief and initial appearances that they are. Further, even if someone's judgment about something unquestionably is subjective, we might learn something from hearing why the individual thinks as he or she does. We might find our own opinion about *The Simpsons* improved by listening to a friend explain her reasons for thinking it is a great TV series. If somebody tells you a certain outfit you are wearing doesn't look good on you, you might benefit from hearing his or her explanation why he or she thinks that.* Is the case before the Supreme Court analogous to the case the Solicitor General cites as a precedent? Members of the Court and other legal scholars may disagree, but it would be ridiculous to brush off the question as "just subjective." In our opinion, few claims fall into the category of automatically not worth discussing. Offhand, the only claims we can think of that might qualify are nonsense claims, like "weirdness is fattening."

The point is not to employ the objective/subjective distinction to stifle inquiry or discussion.

Fact and Opinion

Sometimes people talk about the difference between "fact" and "opinion," having in mind the notion that *all* opinions are subjective judgments. But some opinions are not subjective judgments, because their truth or falsity is independent of what people think. Again, in this book "opinion" is just another word for "belief." If you believe that Portland, Oregon, is closer to the North Pole than to the equator, that opinion happens to be true, and would continue to be true even if you change your mind. You can refer to objective opinions as *factual* opinions or beliefs, if you want—*but that doesn't mean factual opinions are all true.* "Portland, Oregon, is closer to the equator than to the North Pole" is a factual opinion that is false.

> A factual opinion/belief/claim = an objective opinion/belief/claim = an opinion/belief/claim whose truth is independent of whether anyone thinks it is true.

*The claim "other people won't think that outfit looks good on you" is an *objective* claim about what other people will think. It is the sort of thing about which the speaker might be mistaken, and it could be supported with evidence.

Thinking About Thinking

Remember, an *objective* statement is not made true by someone thinking it is true. "Wait a minute," you might say. "Isn't the statement 'Joanie is thinking about f rank' made true by her thinking that it is true?" The answer is no! It is made true by her *thinking about Frank.*

Relativism

Relativism is the idea that truth is relative to the standards of a given culture. More precisely, relativism holds that if your culture and some other culture have different standards of truth or evidence, there is no independent "God's-eye view" by which one culture's standards can be seen to be more correct than the others.

Whatever may be said of this as an abstract philosophical doctrine, it cannot possibly mean that an objective statement could be made true by a culture's thinking that it is true. If it is universally believed in some culture that "water" is not H_2O, then either the people in that culture are mistaken or their word "water" does not refer to water.

Moral Subjectivism

Moral subjectivism is the idea that moral opinions, such as "Bullfighting is morally wrong" or "Jason shouldn't lie to his parents," are subjective judgments. It is the idea, in other words, that if you think bullfighting is morally wrong, then it is morally wrong for you and you don't need to consider any further truth. It is the idea expressed by Hamlet in the famous passage, "There is nothing either good or bad, but that thinking makes it so."

You should be wary of Hamlet's dictum. Ask yourself this: If someone actually believes there is nothing wrong with torturing donkeys or stoning women to death for adultery, would you say, well, if that's what he thinks, then it's fine for him to torture donkeys or stone women to death? Of course you wouldn't. Those ideas can't be made true by thinking they are true anymore than drinking battery acid can be made good for you by thinking it is.

ISSUES

An **issue,** as we employ that concept in this book, is simply a question. Is Moore taller than Parker? When we ask that question, we raise the issue as to *whether* Moore is taller than Parker. To put it differently, we are considering whether the claim "Moore is taller than Parker" is true. Let us note in passing that as with claims, some issues are objective. Is Moore taller than Parker? Whether he is or isn't doesn't depend on whether we think he is, so this is an objective issue (question).

Other issues, such as whether P. Diddy dresses well, are subjective, in the sense explained previously.

The first order of business when it comes to thinking critically about an issue is to determine what, exactly, the issue *is.* Unfortunately, in many real-life situations, it is difficult to identify exactly what the issue is—meaning it is difficult to identify exactly what claim is in question. This happens for lots of reasons, from purposeful obfuscation to ambiguous terminology to plain muddleheaded thinking. In his inaugural address, President Warren G. Harding said,

> We have mistaken unpreparedness to embrace it to be a challenge of the reality and due concern for making all citizens fit for participation will give added strength of citizenship and magnify our achievement.

This is formidable. Do you understand what issue Harding is addressing? Neither does anyone else, because his statement is perfectly meaningless. (American satirist H. L. Mencken described it as a "sonorous nonsense driven home with gestures."*) Understanding what is meant by a claim has so many aspects that we'll devote a large part of Chapter 3 to the subject.

However, if you have absolutely no clue as to what an issue actually is, there isn't much point in considering it further—you don't know what "it" is. There also isn't much point in considering it further if you have no idea as to what would count toward settling it. For example, suppose someone asks, "Is there an identical you in a different dimension?" What sort of evidence would support saying either there is or isn't? Nobody has any idea. (Almost any question about different "dimensions" or "planes" or "universes" would be apt to suffer from the same problem unless, possibly, it were to be raised from someone well educated in physics who used those concepts in a technical way.) "Is everything really one?" would also qualify as something you couldn't begin to settle, as would wondering if "the entire universe was created instantly five minutes ago with all false memories and fictitious records."**

Obscure issues aren't always as metaphysical as the preceding examples. Listen carefully and you may hear more than one politician say something like, "It is human nature to desire freedom." Oh, really? This sounds good, but if you look at it closely it's hard to know exactly what sort of data would support the remark.

This isn't to imply that only issues that can be settled through scientific test or via the experimental method are worth considering. Moral issues cannot be settled in that way, for example. Mathematical and historical questions are not answered by experiment, and neither are important philosophical questions. Does God exist? Is there free will? What difference does it make if he does or doesn't or there is or isn't? Legal questions, questions of aesthetics—the list of important questions not subject to purely scientific resolution is very long. The point here is merely that if a question is to be taken seriously, or if you want others to take it seriously, or if you want others who can think critically to take it seriously, you must have *some* idea as to what considerations bear on the answer.

ARGUMENTS

In our experience, lots of college students seriously contemplate getting a dog or cat. But they are conflicted. On the one hand, it would be sweet to have a nice pet; but on the other, it would be extra work and cost money, and they aren't sure what to do with the animal if they take a trip.

If you are such a student, you weigh the arguments pro and con. An **argument** presents a consideration for accepting a claim. For example, this is an argument:

> A dog would keep me company; so I should get one.

*Reported on nBC news, *Meet the Press,* January 16, 2005.

**This famous example comes from philosopher Bertrand Russell.

Are You Good at Reasoning?

Are you the kind of person who reasons well? Some people are. Unfortunately, maybe people who *aren't* very good at reasoning are the most likely to overestimate their reasoning ability.*

*See Justin Kruger and David Dunning, "Unskilled and Unaware of It: How Difficulties in Recognizing one's own Incompetence lead to Inflated Self-Assessments," *Psychology* 1 (2009): 30–46.

And so is this:

> My landlord will raise my rent; so I shouldn't get one.

The first example is an argument for getting a dog. The second is an argument for not getting one.

As you can see from these two examples, an argument consists of two parts. One part gives a reason for accepting the other part. The part that provides the reason is called the **premise** of the argument,* though an argument may have more than one premise. The other part is called the conclusion. The **conclusion** of an argument is what the premise supposedly supports or demonstrates.

You should always think of the conclusion of an argument as stating a position on an issue, and of the premise or premises as giving reasons for taking that position.

Want an example? Look at the two arguments previously shown. They both address the issue of *whether I should get a dog.* The premise of the first example ("A dog would keep me company") gives a reason for saying I *should* get a dog. The premise of the second example ("My landlord will raise my rent") gives a reason for saying I *should not* get a dog.

What does this have to do with critical thinking? Everything. You want to make the best decision on an important issue—in this case, whether to get a dog. You evaluate the arguments pro and con. Being able to do this intelligently may not be the sum total of critical thinking, but it is an essential part of it.

A large part of this book is devoted to understanding how to evaluate arguments, and all this will begin in Chapter 2. However, right now, two minor points about arguments are worth noticing:

1. The two arguments given as examples are not very long or complicated. Some arguments can be very long and complicated. Einstein's revolutionary theory that $E = mc^2$ was based on complex mathematical reasoning, and that reasoning was his argument for saying that $E = mc^2$.
2. Not every issue requires an argument for resolution. Is your throat sore? You can just tell directly, and no argument is necessary.

We will now offer you a few exercises to help you understand these fundamental concepts. In the next section we will look at psychological factors that impede clear thought.

*Unfortunately, sometimes people use the word "argument" to refer only to the premise or premises of an argument.