

Imagine this scenario: You have just passed your driver's test, and you are now the proud owner of a license. You are excited about your new freedom and can't wait to go out on the weekends to drive around and hang out with your friends. You are certain that you are entering one of the most thrilling times in your life. Then, you hear the bad news: your parents are a little nervous about your driving alone, and they have set your weekend curfew at 10:00 p.m.—the same time your curfew was even before you got your driver's license. You are crushed! After all, you are nearly an adult, so it seems like you should get a few more privileges. A 12:00 a.m. weekend curfew seems much more reasonable to you. After all, all of your other driving friends have midnight curfews. However, you know, instinctively, not to try that line of argument. Whenever you do try the “But all my other friends...” argument, your mother always responds in the same basic way, with some creative variations: “If all your friends jumped off a bridge, robbed a bank, sold themselves into slavery, pierced their big toe would you do it, too?”

Right now, you may be contemplating two equally unappealing options: committing yourself to a life of mopey martyrdom or throwing the grandest, most spectacular tantrum of your life. Neither of these courses is recommended. Instead, you might consider a third option of presenting a civil, well-reasoned argument for a 12:00 a.m. curfew. After all, the worst that your parents can say is “no,” and they may actually be interested in hearing your opinion, especially if your standard M.O. (from the Latin *modus operandi* meaning “standard way of operating”) is to try the mopey martyrdom or tantrum options. How would you construct this hypothetical, well-reasoned argument? After all, your best argument up to now has been the “But all my friends are doing it” argument, and that is getting you nowhere. Where would you find good points to which your parents would actually listen? How would you know which arguments were your best ones? How would you know how to state them properly?

In order to find the answers to these questions, it may help if you learn a little more about the famous philosopher, Aristotle, and two of his favorite topics: **logic** and **rhetoric**. Aristotle lived in Athens, Greece, in 384–322 BC.¹ In Aristotle's day, people were becoming more and more fascinated with **rhetoric**, which is the art of effective public speaking. As people joined the profession of rhetoric, they developed different concepts of what defined good rhetoric. For instance, the **sophists** were one group of **rhetoricians**, or public speakers, who focused more on the sound and style of their speeches, rather than on the content.² While there is nothing wrong, per se (in itself), with this approach, many other rhetoricians considered the sophists' arguments shallow. In fact, even today, if someone says that an argument is “sophistic,” he means that the argument is shallow.

Aristotle did not agree with the sophists' approach to rhetoric, and was instead extremely concerned with the *content* of speeches. He wanted to help his students find all of the available arguments for a given topic. In order to do this, he wrote about something called the common topics, a set of argument categories that a person can use to discover evidence for an argument. The main categories of common topics are: **definitions**, **testimony**, **comparison**, **relationship**, and **circumstance**.³ Each of these main categories contains several subtopics. For example, under the common topic of comparison, Aristotle discussed **analogy**, **difference**, and **degree**. Aristotle believed that **logicians** and rhetoricians could use these topics to help them create the best arguments possible.

However, awareness of the common topics was not enough. Good rhetoricians also had to be able to reason well using the common topics, so Aristotle also taught about logic in order to help his students use the common topics properly. Logic can be defined as “the art and science of reasoning.”⁴ In his book *Rhetoric*, Aristotle described two types of logic that people can use to develop the common topics properly.⁵ Today we call these two types of logic **deductive** and **inductive**.



Deductive logic comes from the Latin word *deducere*, which means “to draw down.” In other words, deductive arguments “draw down” knowledge contained by, or inherent in, a previously stated fact. To help you understand deductive logic better, let’s look at the main tool used with this kind of logic: the **syllogism**. A syllogism is an argument that contains a **conclusion**, which is a statement of belief, supported by two **premises**, which are facts used as evidence. The following is a common example of a syllogism:

All men are mortal.

Socrates is a man.

Therefore, Socrates is mortal.

The basic idea of deductive logic is that if the first two statements are true then the last statement must also be true. It is a logical conclusion that follows from the first two statements. That is, the first two statements imply, or point to, the last statement. We could also say that the conclusion is inherent in, or an essential characteristic of, the premises. Deductive logic is a very precise type of logic. If the premises are true, and the argument is arranged properly, then the conclusion must be true.

The second type of logic—inductive logic—is what will be emphasized in this book. The word “inductive” comes from the Latin word *inducere*, which means “to lead to.” Inductive arguments are the opposite of deductive arguments. Rather than drawing down knowledge already implied in facts or statements, inductive logic leads us to generalize on observations or examples that we see in everyday circumstances. In other words, inductive logic helps us recognize general patterns and theories that everyday observations or examples indicate.

Many medical and nutritional studies are based on inductive logic. For instance, you have certainly heard people quoting studies that indicate that smoking cigarettes is linked with a high chance of developing lung cancer.

In order to make this conclusion, researchers surveyed hundreds and thousands of people who smoked, and they noticed that a high percentage of them ended up with lung cancer. Of course, these same researchers did additional research to make sure that no other factors, such as pollution or diet, were causing the lung cancer. Once they eliminated other possible sources, and determined smoking as a common habit of all the lung cancer victims, they could establish fairly conclusively that smoking caused the lung cancer. If you refer back to the definition of “inductive logic,” you can see that it is the basis of the researchers’ conclusion because they observed many examples of lung cancer patients who smoked, and those observations indicated a pattern of smoking as a cause for lung cancer. Just as syllogisms are the foundation of deductive logic, examples are the foundation of inductive logic.

You may notice that inductive arguments are not as precise as deductive arguments. No matter how many convincing examples you observe, there still may be some

“argument,” it means that you supply the evidence or proof for what you believe. When people state their conclusions and premises clearly and logically, it can actually help prevent tension and hostility. In fact, as you will see in the next chapter, it is important to approach debates and arguments with an attitude of humility and self-awareness. One of the most important things you can realize before you debate is that you might be wrong, and your opponent might be right.

Before we move on, it is important for you to realize that good logic requires two key skills. The first skill is building good arguments, which is the focus of this book. The second skill is detecting whether or not the other person’s argument is a good argument or if it contains fallacies, which are “commonly recognized types of bad arguments.”⁶ When someone commits a fallacy, his premise does not lead to his conclusion. In this book, we will examine some of the most common fallacies connected with each of the common topics. If you haven’t already, I would recommend that you

Deductive logic comes from the Latin word deducere, which means “to draw down.”



other example that disproves your point. However, if you learn to structure your inductive arguments well, your arguments will be extremely strong, even if they are not 100 percent certain. Our examination of the common topics and their subtopics will help you understand how to use them to construct strong and effective arguments.

Right now, you might feel a little uncomfortable with the word **argument** because it seems that it always involves fighting, tension, hostility, and hurt feelings. Although this unpleasantness can be present when people argue, it doesn’t have to be. The Latin word *argumentum* simply means “evidence” or “proof.” Therefore, when you have an

also study *The Art of Argument*, which is a companion text to this book. In that book, you will learn dozens of fallacies that people often commit. Learning those fallacies will not only help you sharpen your argument skills, it will also help you to avoid them in your own arguments. When you learn to build good arguments and to critique others’ arguments, you will be well prepared to engage in and analyze the arguments you hear every day.

DEFINE

1. **Logic:** The art and science of reasoning.

2. **Rhetoric:** The art of public speaking.

3. **Sophists:** Early Greek rhetoricians who focused more on the sound and style of speech, rather than on the content.

4. **Common Topics:** A system Aristotle invented to help people discover all of the possible arguments for a topic. The five common topics are: definitions, testimony, comparison, relationship, and circumstance.

RESEARCH

Research these other famous Greek and Roman rhetoricians and summarize their views and their contributions to rhetoric.

1. **Demosthenes:** He was an Athenian statesman who lived from 384 to 322 BC. He is considered the greatest Roman orator, and is known for his "Phillipics," a series of speeches he made protesting Phillip II of Macedonia's possible invasion of Greece.* (p. 186)

 2. **Protagoras:** He was one of the best-known sophists, along with Gorgias and Isocrates. He was known for his claims that man is the measure of all things. He also claimed that he could make the weakest argument in a speech sound like the best argument, and that one could not tell whether or not the gods existed.* (p. 186)

 3. **Gorgias:** He was an early Greek orator who emphasized style. He is considered one of the founders of sophism.

- Students can find information about Gorgias at the following link:
<http://www.iep.utm.edu/g/gorgias.htm>

4. **Isocrates:** One of the ten Attic orators, he was a Greek rhetorician born in 436 BC. He had stage fright, and his voice was so weak that he could not participate in Athenian public life. Therefore, he became a speechwriter and set up a school for rhetoric, which became one of the greatest schools of its kind in that day. Historians think Aristotle may have been one of his students. He was a sophist, but, wanting to rid himself of that reputation, he wrote an essay entitled "Against the Sophists."* (p. 186)

 5. **Quintilian:** He was a Roman orator whose work was highly regarded by medieval schools of rhetoric and referred to often in Renaissance writings. He is primarily known for his work *Institutio Oratorio*, which was published around AD 90. It was a complete manual for public speaking.* (p. 186)

 6. **Cicero:** He was a Roman philosopher, statesman, and orator who lived during the decline and fall of the Roman Empire. He is widely considered one of Rome's greatest orators. He did a great deal of translating of Greek philosophical and rhetorical works into Latin, even inventing Latin words when the Greek concepts did not translate well.* (p. 186)

Our culture leans toward sophism. For instance, commercials focus more on flash and humor, rather than on presenting logical reasons for consumers to buy a product. In fact, commercials often seem barely related to the item being sold. In addition, when politicians make promises in their political campaigns, people often know they are going to break those promises. However, if a politician sounds and looks good, this can strongly influence his audience. One of the first times this became evident was during the first televised debates between presidential candidates John F. Kennedy and Richard Nixon. JFK barely won that election, but many people believe that he won because it was a televised debate and he looked like a movie star. This kind of thing is common in our culture, which emphasizes a flashy appearance over inner qualities.

CONSIDER

Rhetoric surrounds you every day in speeches, commercials, advertisements, and writing. Considering what you know about the rhetoric of today, do you think it is more in line with sophistic (focus on style) or Aristotelian (focus on content) views on rhetoric? Give two examples to support your idea.

Sophistic Ideas: Sophistic speech is usually entertaining, emotionally engaging, and humorous.

Therefore, two strengths of this kind of speech are that it engages the listener's attention and sustains it by stirring his emotions. However, since sophism is concerned more about style than content, you may fall into shallow speaking and thinking when arguing in this style. A second weakness is that you may fail to address serious problems or to provide meaningful answers to important problems because you are overly focused on how your argument sounds.

DESCRIBE

Describe two strengths and two weaknesses of both sophistic and Aristotelian ideas of rhetoric.

Aristotelian Ideas: Because Aristotelian rhetoric focuses on content and good reasoning, its strengths are that it provides thorough information for the listener, and it does so in a logical manner without resorting to emotional manipulation. However, an exclusive focus on content fails to recognize that people are, for better or worse, influenced by outward impressions. Therefore using this approach to arguing may neglect aesthetics—the beauty of sound and image—which are important. This lack of attention to the appeal of an aesthetically pleasing speech can detract from an argument because listeners and/or opponents may get bored listening to a solely factual argument.

THE FOUR IDOLS (Chapter 2)

1. Summarize the idol of the tribe in your own words.

2. Summarize the idol of the cave in your own words.

3. Summarize the idol of the marketplace in your own words.

4. Summarize the idol of the theatre in your own words.

5. Why do you think Francis Bacon characterized these human tendencies as “idols”?

6. Cite a recent example of someone who has exhibited one of these idols in an argument or opinion.

7. Describe some ways in which you have fallen prey to one or more of the four idols.

THE FOUR IDOLS (Chapter 2)

1. Summarize the idol of the tribe in your own words.

Answers will vary, but be sure students cover the concepts of hasty generalization and wishful thinking.

2. Summarize the idol of the cave in your own words.

Answers will vary, but be sure students note the role that class, ethnicity, and upbringing play.

3. Summarize the idol of the marketplace in your own words.

Answers will vary, but make sure students mention people's tendency to prefer their own interpretation of words.

4. Summarize the idol of the theatre in your own words.

Answers will vary, but check for the concept of preferring majority or established opinion over minority or new opinion.

5. Why do you think Francis Bacon characterized these human tendencies as "idols"?

The word "idol" indicates that we are prone to give improper allegiance to these tendencies and to be led astray from proper reasoning and thinking by them. The word "idol" also suggests that these tendencies are human flaws.

6. Cite a recent example of someone who has exhibited one of these idols in an argument or opinion.

Answers will vary, but check to ensure that the examples given accurately correspond to the idols as defined by Bacon.

7. Describe some ways in which you have fallen prey to one or more of the four idols.

Again, answers will vary, but check to ensure that the examples given accurately correspond to the idols as defined by Bacon.