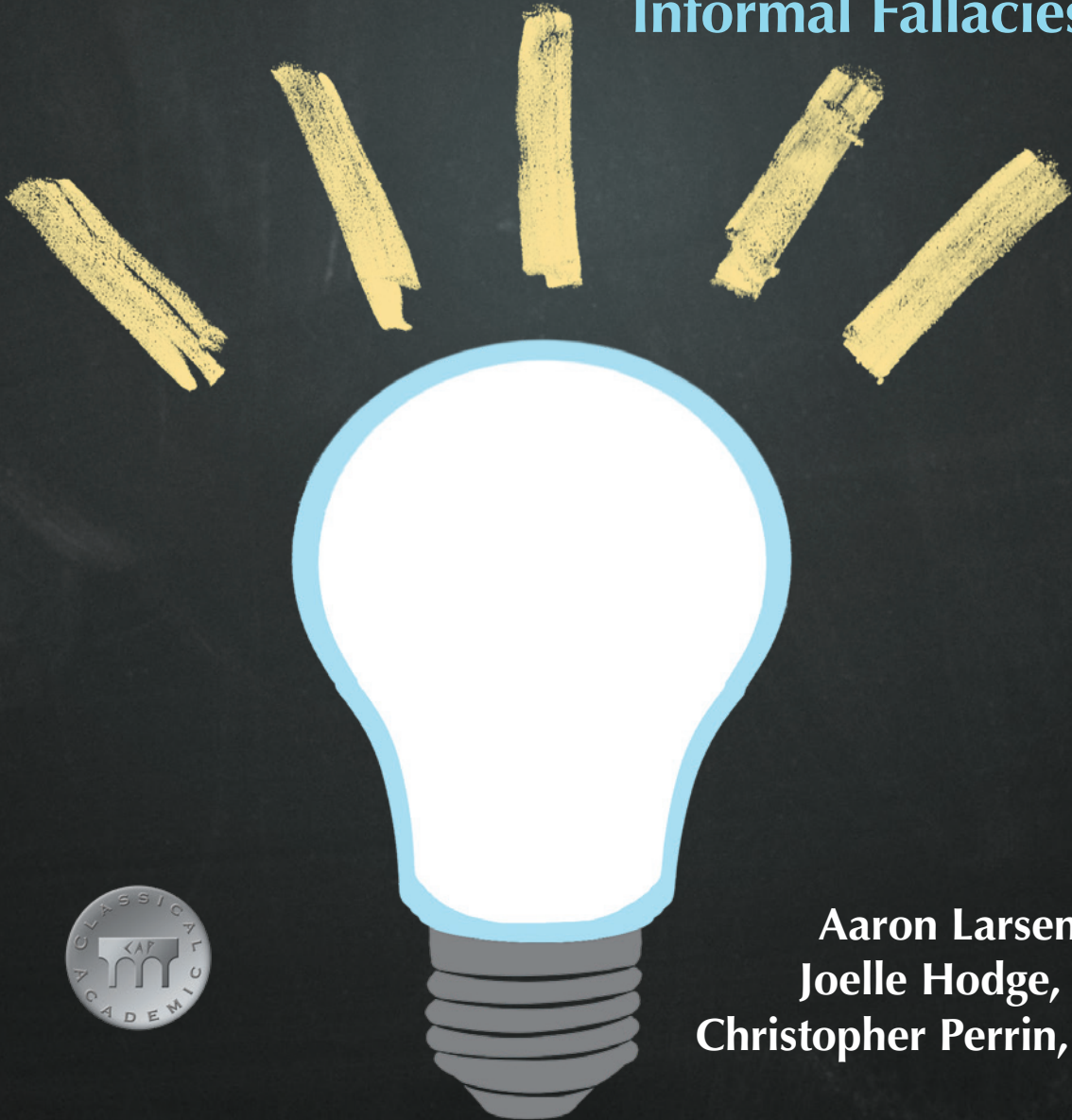# The Art of Argument

An Introduction to the Informal Fallacies

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Joelle Hodge, MAT
Christopher Perrin, PhD

Relevance • Presumption • Clarity

The Art of Argument

CONTENTS

Let's Argue!

Have you ever heard an argument from a friend that didn't seem right? Perhaps you knew that something was wrong with an argument but could not figure out just what the problem was. Well, after studying this book, you will know just what is wrong with bad arguments, and you will even learn the names for the ways that arguments can be bad. You will learn the most important "logical fallacies"—twenty-eight of them to be exact. A logical fallacy[1] is an occurrence of bad or incorrect reasoning, and we hope you will learn to sniff out bad reasoning like a hound dog.
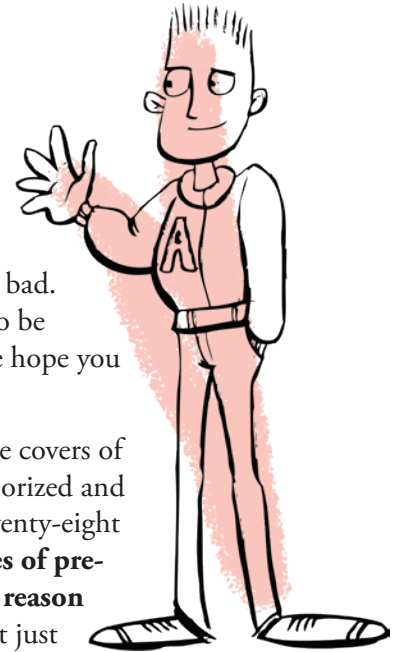
All twenty-eight of the fallacies are listed with their definitions on the inside covers of this book. We encourage you to review them often until you have them memorized and they are part of your permanent mental framework. You will note that the twenty-eight fallacies are divided into three basic categories: **fallacies of relevance**, **fallacies of presumption**, and **fallacies of clarity**. Simply put, this means that when people **reason** badly, they may err in one of three basic directions: they can make points that just don't relate to the issue (irrelevancy); they can make assumptions that are not justified or necessary (presumption); or they can use language that confuses and muddies the argument (clarity). As you learn to evaluate arguments, you will soon be asking yourself questions such as, "Is his point *relevant*? What does his argument *presume*? Is she being *clear*?"

While you can review all twenty-eight of the fallacies at any time (even now!), we will nonetheless proceed chapter by chapter and cover each of these fallacies in turn, providing several examples of each and giving you opportunities to sniff out fallacies in the form of written arguments (bad arguments) and in sixty-five magazine advertisements that each contain one of the twenty-eight fallacies. Yes, advertising is full of fallacies! We have created each of these advertisements ourselves, so you must know now that the products and services they advertise are imaginary. We think you will enjoy them and they will provide you with some good practice in detecting fallacies that occur in our everyday lives. Occasionally we will even ask you to create some of your own fallacies.

You will also note that this text contains a series of ongoing dialogues with the famous Greek philosopher Socrates (400 BC), who is somehow able to travel through time and talk with a couple of college students named Tiffany and Nathan. As Socrates talks with Tiffany and Nathan, he will teach them about the logical fallacies (what else?) and you will have the benefit of listening in.

You will see that the book is divided into three units, six chapters, and twenty-eight fallacies. Unit 1 is about **relevance** and contains fourteen fallacies. Unit 2 is about **presumption** and contains eleven fallacies. Unit 3 is about **clarity** and contains three fallacies. At the beginning of each unit there is a page of definitions and fallacies that you will master during the unit. We recommend that you memorize these definitions early on and then deepen your understanding of them as you go. Regular practice and review will enable you to detect fallacies quickly and to reason well.
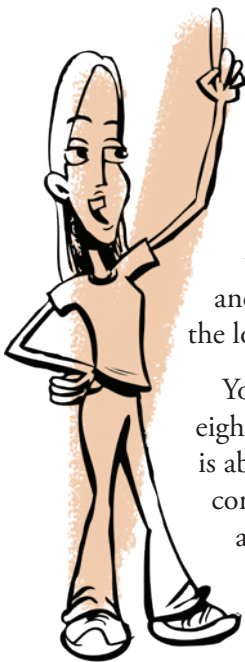
When you come across a word that is difficult, you will likely find it defined in the glossary at the end of the book. Many of the words that appear in **bold** in the text will also be defined in the glossary. There will also be some logical and technical terms in the glossary that you will not find in the text, but that will help you learn additional vocabulary related to the study of the informal fallacies. Studying the glossary will also serve as another way to review the fallacies and the essential content of the book.

For a fun way to review some of the fallacies, you will enjoy "Bill and Ted's Excellent Election: A Theatrical Play Demonstrating the Common Fallacies." You can simply read the play, but it also can be produced as a brief play that will be enjoyed by schools and homeschool co-ops. The play is included in Appendix A at the end of the book.

You will also enjoy Max Shulman's story, "Love Is a Fallacy," which shows how the logic you learn can be used against you—even in romantic matters. Shulman's story is included in Appendix B.

Please note that this text will represent fallacies from many different sources. Fallacies are present on the political left and right (and in the middle) and in the arguments of people of all kinds of political, religious, and cultural viewpoints. No one "school of thought" is fallacy-free!

In the pages of *The Art of Argument*, I hope you enjoy your study of reasoning gone wrong as you learn how to make reasoning go right. Your friends and acquaintances should beware, for after you have mastered the logical fallacies, you won't be so easily tricked.

Christopher A. Perrin, PhD

Publisher

Fight Fair!
How to Make an Argument without Starting an Argument

As you may have guessed, this is a "how-to" book, but one of a rather special sort. It is for those who want to argue like philosophers! In this book, *philosopher* does not refer to someone who majors in philosophy at college or has a PhD in the subject. We are using the word in its original, oldest sense. *Philosopher* comes from a combination of two Greek words: *philos*, meaning "loving" or "friend" and *sophia*, meaning "wisdom." In its original sense, then, **philosopher** means "friend or lover of wisdom." Before we explain just how philosophers argue, let's attempt to define two important terms that are central in this book:

What do you think of when you hear the word "logic"?

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What comes to mind when you hear the word "argument"?

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You have likely heard the words *logic* and *logical* before. They both come from the Greek word *logos*, which means, "reason," "thought," "word," "assertion," "speech," and "conversation." You can see that the meaning of *logos* is deep and wide. In English, **logic** means "the art and science of reasoning." To argue well, we certainly need to use reason, and therefore logic.

What does *argument* mean? The subtitle of this section (Fight Fair! . . .) is a deliberate play on two meanings of this word. Just how do we "make an argument without starting an argument"? When you hear the word *argument*, do you think of an emotional disagreement? That is the "negative" sense of this word, and it is also the most common meaning. When philosophers use it, however, *argument* can also have a "positive" meaning. To a philosopher, an argument is a very good thing, because having an argument means that two or more people are working together to find or discern what is true, that is, what lines up with reality.

The Latin word *argūtus* means "clear, bright, distinct, or penetrating." The Latin noun *argūmentum* means "evidence or proof." The Latin verb *arguō* means "to prove or reveal." To the Latin mind, an argument was not necessarily an emotional disagreement, rather, it was an attempt to reveal what was true on the basis of **evidence** and **reason**. In short, to **argue** (or make an **argument**) is to provide rational reasons for or against an idea or action with the intent to persuade.

Issues and Arguments

What's the difference between an issue and an argument? Students of logic often confuse these two terms, thinking they are synonyms, but they have different meanings. When it comes to learning and reasoning, the best place to start is always by defining our terms. So, let's begin by discussing the difference between issues and arguments.

An **issue** is the topic under discussion. It is the thing that the argument is really about and the question that is the source of disagreement. Consider, for instance, the following questions: Should the governments of the world require their citizens to wear masks during a global pandemic, or do mandates like that infringe on our individual liberties? Is three hours of screen time too much for kids ages 3–18? Should kids under the age of 18 be allowed to drink coffee on a regular basis? Should school uniforms be chosen by the parents and teachers, or should the students be involved? These are all issues and each one represents a problem that is worthy of **debate**. With each issue that needs debate, good arguments and discussion are what is necessary to determine the best way forward.

Perhaps the principal objection to a quarrel is that it interrupts an argument.

—G. K. Chesterton

While an issue is the subject (topic) of the debate, arguments are rational reasons expressed in support of or in opposition to one particular position on an issue. When we provide and communicate rational reasons to take a side of an issue, we are making an argument.

Seeking Truth: Having a Disagreement like a Philosopher

As we have seen, philosophers are lovers of wisdom and seekers of truth. They realize that other people (especially other philosophers!) can help them to discern what is wise and find what is true. This means that in the positive sense of "argue," they love to argue with others who are also seeking truth. Take another look at the quotation by Chesterton. Does he view arguing as a positive or a negative activity?

Clearly, Chesterton wants to enjoy a good argument without starting a quarrel! One of the best ways to have a good argument while avoiding a quarrel is to stay focused on seeking and finding the truth. That is what philosophers do—they enter discussions with a focused interest in finding truth. You might say that they possess "a spirit of inquiry for seeking truth." Think about how an argument would unfold if everyone participating was focused on finding truth and not on "winning" or "beating" their "opponent," or "scoring points" to look good in the discussion. When philosophers argue, they don't make the discussion a matter of personal conflict and so, they can have disagreements without growing angry, impatient, or insulting. Can you imagine how enjoyable such a respectful, philosophical argument would be?

In this book, we will encourage you to always begin an argument with "a spirit of inquiry for seeking truth." We want you to develop a habit of asking questions (a habit of inquiry) before offering an opinion. You've probably heard someone say, "Think before you speak," "Be slow to speak and quick to listen," and "It's better to ask good questions than to know the right answer." All of that is good advice. When you have a habit of listening well and asking the best questions, of yourself and others, you will be able to detect fallacious reasoning, craft strong arguments, and in the end, find what is true.

So, you can see that philosophers are able to have good arguments with others because they love truth. A good philosopher will be patient and charitable when having an argument with oth-

ers. But a philosopher will also try to convince and persuade others of his point of view by giving reasons that support his point. From the early Greek philosophers who sought truth based on reason, to Peter's New Testament exhortation to "be ready to give the reason for the hope that is in you,"[1] to the modern law courts where prosecutors seek to prove their cases "beyond all reasonable doubt," there remains a tradition of respectful argumentation. While many today argue only in the negative sense, we urge you to argue positively, with "gentleness and respect," as you learn to listen, understand, and appreciate those with whom you argue—even when you disagree with them. Then you will be arguing like a philosopher!

This book is organized around three key concepts and four key questions. We use three concepts to organize all the fallacies you will learn. Those concepts are **relevance**, **presumption**, and **clarity**. All the fallacies that you will study violate one of these key concepts. As we examine the concepts, you will see that each one also suggests a key question. This means there is a question for relevance, one for presumption, and another for clarity. There is one question, however, that we should ask at the very beginning of every argument: What is the issue at hand? This is another way of asking what we are truly talking about and debating.

First Question: What is the issue at hand?

Once this question has been answered, we can move on to consider the concepts of relevance, presumption, and clarity and the corresponding questions that arise from them. Remember that the issue is the main topic or question of the discussion or debate.

Key Concept: Relevance

Corresponding Question: Is the argument relevant to the issue at hand?

When you argue well (as a philosopher), you should seek to show that your argument relates directly to the real issue you are discussing. If you don't follow the principle of relevance, it means that your comments, points, facts, and argument simply don't relate to the issue but instead distract from it. If you introduce an irrelevant point during the discussion, the people you are arguing with might become frustrated with you, thinking you are trying to dodge the issue.

Anytime people argue by introducing elements that distract from the real issue at hand, they are committing a fallacy of relevance. In other words, by introducing distracting, irrelevant elements into the argument, they are violating the principle of relevance. Whenever you analyze an argument—whether it's your own argument or someone else's—you should pause and ask yourself if anything irrelevant or distracting has been introduced. Ask, "What is the real issue, and is this argument addressing it?"

Key Concept: Presumption

Corresponding Question: Is the argument assuming something that it shouldn't?

When you argue, you should also be careful not to make any unjustified, unspoken assumptions. When you make an assumption, you accept something as true without actually having, or giving, evidence that it is indeed actually true. For example, you could assume that new ideas are better than old ideas, or that old ideas are better than new ones. Therefore, whenever you analyze an argument, you should ask yourself if you or anyone else is making an assumption that is not merited or justified. Ask, "What does this argument assume, and should it make that assumption?"

Key Concept: Clarity

Corresponding Question: Is the argument clear?

When you argue well, you should use language in a way that is clear and does not cause confusion. This means that you should define your terms when needed, avoid using words with double meanings, and avoid pretending to be precise with numbers that really are not precise (especially when using statistics). You should pause and think about how to say what you think in the best, clearest way possible. Being clear will prevent you from confusing others and from hindering a good, respectful argument. When you analyze an argument, ask yourself if there is any element or word use that is causing confusion. Ask, "Is this argument clear? Why or why not?"

All this means that when you argue, you should strive to stay relevant, avoid making unwarranted assumptions, and speak clearly. And it means you should learn to ask the four key questions whenever you engage an argument. Then you will be fighting fair and will be able to enjoy fruitful discussion and debate.

A. Answer the Following:

1. How can people argue "positively"? How can people argue "negatively"?

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2. How do people sometimes violate the principle of relevance when arguing?

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3. How do people sometimes violate the principle of presumption when arguing?

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4. How do people sometimes violate the principle of clarity when arguing?

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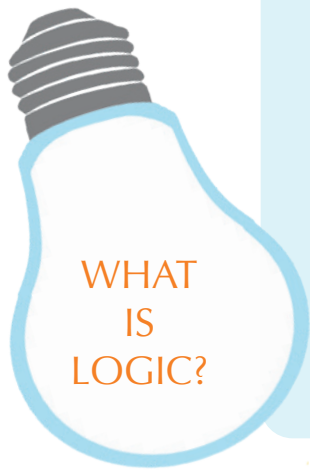
Critical Thinking as a Way of Life

By mastering the "art of argument," you will learn not only to argue like a philosopher, but also to think clearly like a philosopher. To think "critically" does not mean looking for opportunities to insult and demean bad reasoning (or *people* who reason badly). To think critically, rather, means to carefully assess and evaluate the reasoning you encounter in arguments, writing, and speech. To become a critical thinker is to become someone who uses logic to think, write, and speak clearly, accurately, and persuasively.

A philosopher (the greatest example of which may be Socrates) seeks truth and wisdom and enjoys discussing the most important things in life with others. Philosophers enjoy exploring what is "really real" (**metaphysics**) and how it is that we know what we know (**epistemology**). Philosophers also discuss the more everyday issues that we all encounter. A philosopher is just as likely as anyone else to discuss the quality of restaurants, rising prices, politics, or to discuss the recommendations about which movies are worth seeing, which economic prediction we should believe, and which new product we should or should not buy.

A keen ability to evaluate the arguments of others is one of the most important skills a person can have. This is, perhaps, truer today than it has ever been. Our culture bombards us with advertisements and urgent calls about what to buy, what to believe, and what to do. A great many of these calls, recommendations, and arguments are filled with deceptive, fallacious reasoning. Learning to think critically is a kind of mental judo that we need to protect ourselves from the onslaught of commercial and cultural propaganda.

Throughout this book, you will have the opportunity to evaluate a number of "fake advertisements" that employ fallacies much like the ones you see every day. You will also encounter various forms of journalism and political speech that also use the kind of faulty reasoning that is so common today. It is our hope that by regular practice and exercise, you will be able to quickly detect fallacious thinking when it comes your way.

In addition to evaluating the arguments of others, t you will also need to make recommendations to others about what to do, what to buy, and what to believe. How can you make wise evaluations and recommendations? Rather than arguing like a **demagogue**, one who resorts to sneaky and manipulative tricks to persuade others, it should delight you to make logical recommendations that are informed by your own quest for truth. This means you will avoid manipulation and deception. Instead, in all your arguing, you will "fight fair" as a gentleman or lady, and as a philosopher.

Not only is arguing like a philosopher the right thing to do, but it also works. It doesn't always work as quickly as demagoguery or manipulation, but in the end, it will be much more effective: those you convince will be convinced for the right (logical) reasons.

Argumentum ad What?

If you've ever spent any time using a good dictionary, you've likely seen that it includes a short history of the word you are exploring. Modern words are often newer versions of words from antiquity, and therefore their slow evolution from an ancient language to a modern language is a part of the word's history. We call this historical and linguistic journey a word's "etymology." Etymology can be especially useful in helping you better understand some of the technical terms introduced in this book. Often the history of a word will illuminate its meaning and make it memorable. As you are already seeing, a number of technical words in logic are derived from Latin or Greek.

You will notice that many of the fallacies we introduce in this book have Latin names. The first one you will learn is called *argumentum ad hominem* ("argument to the man," with "man" understood in the broad sense as referring to "humankind"), often called the *ad hominem* fallacy for short. In fact, most of the fallacies with Latin names will be abbreviated this way, with the word *argumentum* being assumed. For example, the *argumentum ad populum* ("argument to the people") may simply be called the <>ad populum<I> fallacy.

Perhaps you can tell that we think etymologies are helpful! We do, and we will continue to share them throughout the book. Even the word *etymology* has an etymology. It is from the Greek word *etymos* meaning "the real" or "the true," and the Greek word *logos*, meaning "reason," "word," or "study." We see this root word *logos* in all sorts of words: biology, theology, cosmology, zoology, etc. *Bios* is Greek for "life" and thus biology is the "study of life." *Theos* is Greek for "God" and thus theology is the "study of God." *Cosmos* is Greek for "the universe" and thus cosmology is the "study of the universe."

Defining Your Terms and Crafting Good Definitions

It's often said that the first rule of logic is to define your terms. Throughout this book, you will be asked to first confirm that you and your rival are talking about the same thing before you can discuss the issue at hand. This is a habit that will serve you well in all of life. After all, if in a conversation, you are using a term one way, but your friend is using the same term in a different way, are you really talking about the same thing? (See the equivocation fallacy on page 223.)

We recommend four steps for building a good definition:

1. Identify the etymology of the word.

2. Identify the category (*genus*) in which the word (and what it refers to) belongs. **Genus** is a Latin word that means "class," "kind," "species," or "category."

3. Identify what distinguishes the word (and what it refers to) from other things in the same category (i.e., identify its *difference*).

4. Using the etymology, category, and difference, craft a description of the word that would apply generally and everywhere (a universally appropriate description).

Defining *Human*

Using these four steps, let's try defining a common word—*human*.

Step 1. Identify the etymology: Human comes from the Latin *homo, hominis*, and it means "human being," "man." We find *homo in* homo sapiens *(literally, "wise man"), and in our words* humane*, *humanity*, *humanist*, and* humanities.<I>

Step 2. Identify the category (*genus*): The larger category that human belongs to is mammals. So the **genus** of human is mammals—this is the category to which human belongs. Note that the category of mammals itself belongs to the category of animals. We could go further: Animals belongs to the category of animate things (as opposed to the category of inanimate things). A list of all of these categories within categories is called a taxonomy. .

Step 3. Identify the difference: Now we can describe how a human is different from other mammals; we can identify what makes humans different from the other members of the category of "mammal." Well, humans are different from other mammals in that humans alone use language, calculate with numbers, and create art—these would be a few ways of describing the *difference*—the ways humans differ from the rest of mammals.

Step 4. Craft a universally appropriate description: From the Latin *homo, hominis*, a human is a mammal that is intelligent enough to use complex language, calculate with numbers, and create art.

Using the Genus-Difference Method to Classify Fallacies

As you might guess, we can use these same four steps to define and classify a fallacy. We can study the etymology of the fallacy's name, then note its main category (*genus*), and then describe what makes this fallacy different from other fallacies in its same category (difference). We will do this with each fallacy in the book and display the genus and difference in a "Key Points" sidebar for each fallacy. Let's try this with the first fallacy you will learn, the *ad hominem* abusive fallacy.

Classifying and Defining the *Ad Hominem* Abusive Fallacy

Step 1. Identify the etymology: *Argumentum ad hominem* in Latin means "argument to the man." When used to describe an argument, *abusive* refers to the use of insulting language.

Step 2: Identify the category (genus): This fallacy is part of general class of fallacies that focus on the source of the argument under discussion rather than the argument itself. The category of fallacy is called *ad fontem* ("to the fountain or source") arguments.

Step 3: Identify the difference: This fallacy is an *ad fontem* ("to the source") argument that focuses on insulting the "man" who is making the argument rather than addressing the argument he is making. It differs from other "to the source" arguments in that it uses abusive language to attack the other person and not on other sources of an argument (like the place from where the argument came) or other circumstances surrounding the opponent who is making the argument.

Step 4: Craft a universally appropriate (or complete) description: From the Latin phrase meaning "to the man," the *ad hominem* abusive is an *ad fontem* argument that attempts to avoid the issue by insulting an opponent with abusive language rather than focusing on the merits of the argument under consideration.

While the *ad hominem* abusive fallacy belongs to the *ad fontem* category of fallacies, the *ad fontem* category itself belongs to even larger category called the fallacies of relevance—fallacies that introduce irrelevant matters that detract attention from the real issue at hand. As you can see, just as we can create a taxonomy of the human, we can create a taxonomy of fallacies. We have cre-

ated just such a taxonomy for you in the form of "fallacy tree" or chart displaying all 28 fallacies contained in this text. (See page 15 for the fallacy tree.)

The Four Key Questions Again

You remember that we want you to develop a habit of asking the four key questions whenever you analyze an argument. Can you remember them? They are:

1. What is the issue at hand?

2. Is this argument relevant to the issue at hand?

3. Is the argument assuming something that it shouldn't?

4. Is this argument clear?

When you hear an *ad hominem* abusive argument, which of those questions will help you catch the fallacy? Right—the second question: **Is this argument relevant the issue at hand?**

Let's consider a specific example. Imagine you hear a senator rejecting the tax increase proposal of another senator by saying this: "We should not waste time considering Senator Reynold's proposals for increasing our taxes. The business he used to manage before he was a senator (Acme Securities) has gone bankrupt. He is clearly terrible with managing money and business and he should not dare to give us advice regarding spending money or raising taxes!

We might ask a couple more of our key questions:

What is the issue at hand? The question (issue) under discussion is whether or not we should increase our taxes.

Is this argument addressing the issue at hand? Not at all. Rather the speaker is avoiding the issue by focusing on the supposed faults of Senator Reynolds. This is an *ad hominem* fallacy!

Is the argument assuming something that it shouldn't? It seems to assume that because Acme Securities went bankrupt, Senator Reynolds is "terrible with money." But there are a lot of potential reasons why Acme Securities went bankrupt that would have nothing to do with Senator Reynolds when he worked with the company. This means that we may also have a fallacy of presumption—in this case, the false cause fallacy, which you will study later in this book.

We think you will find studying the fallacies enjoyable and meaningful. We hope you will become a thoughtful, patient philosopher and conversation partner who seeks truth by using logic carefully and who always fights fair.

A. Define:

Define the words below by referring to the lesson you have studied and by looking them up in a good dictionary. Include the etymology for as many of the words as you can.

1. Philosopher:

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2. *Philos*:

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3. *Sophia*:

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4. Metaphysics:

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5. Epistemology:

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B. Further Research:

Use complete sentences to answer the following questions. Use available classroom resources, Internet sites, or library resources.

1. Who was Socrates and what is he famous for?

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2. Why do you think the authors of this book think that Socrates may be the greatest example of a philosopher?

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3. Why do you think it will be valuable to study informal logic? Why do you think British writer G. K. Chesterton said, "Perhaps the principal objection to a quarrel is that it interrupts an argument"?

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Premises and Conclusions

So far, we have introduced you to habits of logical thinking and assessment that will serve you well in all aspects of your life.

Now let's move on to a few additional logical concepts that you should know about before we start looking at the 28 informal fallacies. First, we will look at the way arguments are comprised of **premises** and conclusions. Then we look at the way arguments can be qualified (or not qualified) as true, valid, and sound.

When logicians formally analyze an argument, they typically do it by putting the argument into a particular form called a **syllogism**. The word *syllogism* simply means "with logic." A syllogism is a traditional form of three-statement deductive argument; looking at arguments in this form allows us to see how the statements are logically related to one another.

A syllogism should contain three elements: a **major premise**, a **minor premise**, and a **conclusion**. The word *premise* means something that is "sent before," so it is a statement that comes *before* a conclusion. Of the two premises, the major premise should come first and it is usually understood as being the most basic or foundation of the three statements that make up a syllogism. The minor premise should come second, and it adds another key piece of information to the argument. The **conclusion** is the statement (claim) that the premises lead us to decide, think, or . . . conclude. Our word *conclude* comes from the Latin word (*concludere*) that means "to close up" or "end." Our verb "to close" is related to this verb. You might say that a good argument ends with a closed case! Here is a simple and famous syllogism with two premises and a conclusion:

- Major Premise: All men are mortal.

- Minor Premise: Socrates is a man.

- Conclusion: Therefore, Socrates is mortal.

Does this syllogism or argument lead you to any truth? Do you find it a "closed case"? In the next section, we will show you more examples of syllogisms.

Truth and Validity

I bet that you did find the argument about Socrates in the syllogism to be a strong argument. If both of the premises ("All men are mortal" and "Socrates is a man") are true, then it seems that the conclusion ("Socrates is mortal") *must* follow.

When all the statements or premises in syllogism are true and when the syllogism is in a proper form, then we call that syllogism both *true* and *valid*. **Truth** has to do with a right understanding of facts and how they relate to reality. **Validity** has to do with a right way of reasoning and thinking. And when we have syllogism that is both true and valid we can also say that argument is **sound**. And that's what we want! We can summarize it this way: Truth + Validity = Sound Argument.

A sound argument contains true statements and is logically valid and free from error or fallacy. As you seek to be good philosophers, you will want to build your arguments this same way. Make sure your statements or premises are true, make sure your form is valid and free of fallacies and errors. Then you will be crafting arguments that are sound and strong.

Let's unpack the terms *truth* and *validity* in a little more detail. All people want truth. Can you think of a culture that values lying, deceiving others, and the deliberate telling of falsehoods? Could such a culture survive? Truth is the foundation on which we make judgments and create

our perception of the world and how we should live in it. To know what is true is vital to a meaningful, peaceful life and as a way of finding harmony with others. As we seek, find, and come to know what is true, we develop a clear understanding of what is real, of reality. This is true even though we can never know everything, and we will always be seeking to find and understand more of what is true. All of which is to say that using reason well to find and know truth is very important indeed.

Can you put the argument I have just made into the form of a syllogism? It might look something like this:

- Major premise: All people want truth.

- Minor premise: Knowing truth helps us to understand what is real and live a meaningful life.

- Conclusion: Therefore, it is important to seek and find truth.

As we have said, for an argument to be valid, it must have the proper form. As you will see in the next lesson, an argument can have a valid form even when it contains statements that aren't true! This is because the validity of an argument doesn't depend on facts or truth, but on how the argument is put together. You'll learn a lot more about validity when you study formal logic in the next logic book in this series, *The Discovery of Deduction*. In our next lesson, however, we will give you some additional insight into valid and invalid forms when we compare formal with informal logic.

It Does Not Follow: A Word about *Non Sequitur*

From one perspective, all the fallacies you will study can be grouped under the general category of faulty conclusions that "do not follow" from their premises. The Latin phrase *non sequitur* means "it does not follow." Therefore, any argument that presents a conclusion that does not follow from its premises can be called a *non sequitur*.

For example, if we argue that since Dr. Martin Luther King, Jr., was arrested and jailed in 1965 for driving 30 mph in a 25 mph zone, therefore we cannot accept his teachings on racial equality, we have committed a *non sequitur*. From the fact that Dr. King was jailed for committing a minor traffic infraction it does not follow that his call for an end to racism is unacceptable. This kind of fallacy is called an *argumentum ad hominem* ("argument to the man") fallacy, which is a fallacy that seeks to abuse the person making the argument instead of addressing the real issue.

Let's look at another example. If a used-book seller were to say, "Never buy a new book over an old book—it is the old books that contain hard-won wisdom," we could charge him with a *non sequitur*. It simply does not follow that just because a book is old it will contain wisdom. Nor does it follow that just because a book is new it will not contain wisdom. This fallacy, as you will learn later, is called "chronological snobbery"; it is committed when someone tries to discredit or approve of something merely on the basis of its age.

Does It Follow?

Whether you are presented with an argument or you're building an argument of your own, it is crucial to ask yourself if the conclusion truly follows from the premises. If you sense you have a *non sequitur* before you, it is good to probe further. All good philosophers seek the truth and ask questions. Here are a few common questions that will help get you started in your investigation: Why doesn't the conclusion follow from the premises? Is the premise relevant to the issue or conclusion presented? Does the argument or premise assume or presume something that is hidden but unacceptable? Is the premise clear?

By violating the principles of relevance, presumption, or clarity, all the fallacies you study will in one way or another feature conclusions that do not follow from their premises or the evidence to which they appeal. They are all versions of a *non sequitur*. As you embark on your study of the informal fallacies, this will become increasingly clear.

Argumentative Persuasion

First Question: What is the issue at hand?
Next Questions:

Relevance → Is the argument relevant to the issue at hand?
Presumption → Is the argument assuming something that it shouldn't?
Clarity → Is the argument clear?

Formal Arguments (Deductive Reasoning)
- Valid
- Invalid
  - (Formal Fallacies)

Informal Arguments (Inductive Reasoning)
- Strong Arguments
- Weak Arguments (Informal Fallacies)

Fallacies of Relevance

Ad Fontem
1. *Ad Hominem* Abusive
2. *Ad Hominem* Circumstantial
3. *Tu Quoque*
4. Genetic Fallacy

Emotion
1. Appeal to Fear
2. Appeal to Pity
3. Mob Appeal
4. Snob Appeal
5. Appeal to Illegitimate Authority
6. Chronological Snobbery

Red Herring
1. Appeal to Ignorance
2. Irrelevant Goals or Functions
3. Irrelevant Thesis
4. Straw Man Fallacy

Fallacies of Clarity
1. Equivocation
2. Accent
3. Distinction without a Difference

Fallacies of Presumption

Presupposition
1. Begging the Question
2. Bifurcation (False Delimma)
3. Fallacy of Moderation
4. Is-Ought Fallacy
5. Fallacy of Composition
6. Fallacy of Division

Induction
1. Hasty Generalization (Converse Accident)
2. Sweeping Generalization (Accident)
3. False Analogy
4. False Cause
5. Fake Precision

Argumentative Persuasion Fallacy Tree

Formal vs. Informal Logic

In our last lesson, we studied the relationship between premises and conclusions as well as the concepts of truth, validity, and soundness. In this lesson, we will continue this study, but we will do so by comparing formal and informal logic.

Before we compare formal and informal logic, let's take a step back and describe what logic is in a little more detail. Remember that logic is "the art and science of reasoning." Logic is a study of how our minds work, of how we humans can seek, find, and then know what is true. Only humans make arguments, only humans collaborate to find truth and then communicate that truth to others. Since making arguments is uniquely a human activity, it means that the study of logic helps us to "cultivate our humanity"—it helps us become more excellent at using reason.

Since logic is an art, this means that logic helps us make things. Your training in logic will make you a logic artist! Those things that people make using their arts and sciences are called "artifacts." What kind of artifacts do we make with logic? Arguments! As we have already seen, we can make mistakes and therefore make bad art—in this case, bad arguments. This means that studying the informal fallacies is a way of studying what you as logic artist should not do! After all, even if we humans are remarkable for our ability to reason, we are also fallible and easily err.

Traditionally, logic is one of the seven liberal arts. The first three arts of the seven are grammar, logic, and rhetoric, and together, these three arts are called the "trivium" (meaning "the threefold path"). The trivium arts all have to do with words and the way we use them, so they are sometimes called the verbal or linguistic arts. Grammar is the study of how words work together to form sentences and ideas that are clear, accurate, and precise. Logic is the study of how words form arguments. Rhetoric is the study of how we use words eloquently (including arguments) to persuade others of a course of action, idea, or belief.

The remaining four liberal arts are the mathematical arts of arithmetic, geometry, music, and astronomy and together are called the "quadrivium" (meaning "the fourfold way"). To study all seven of these liberal arts makes one a "liberal artist," one who has acquired skill in using words and numbers!

Logic is an art, but it also has some characteristics of a science. While an art helps us to become a maker, a science enables us to discern the governing principles by which we can organize a body of knowledge. Think of oil painting, for example. Nothing is more quintessentially "art" than a beautiful Renoir painting. But if you think about it, there's quite a lot of science that went into the creation of each one of his famous paintings. Renoir employed chemistry to create and blend his paints. He had to understand light and shadow, scale, foreshortening . . . all elements of science. The construction of the elements he used created vibrant colors, lifelike textures, light, beauty, shapes, and images. And while it's often easiest to see those artistic qualities in his painting, we must acknowledge that they are also evidence of applied science. It would be impossible

to entirely separate the science from the art. His paintings are world famous because they are a delicate, indistinguishable, intricate dance between the two.

Like painting, logic, too, has some laws or principles. For example, one of the fundamental laws of logic is called the law of non-contradiction. It states that *A cannot be both A and non-A at the same time and in the same respect*. Or, put another way, this principle means that something cannot both be and not be. This may seem obvious, but it is important and necessary if we are to reason intelligently. When I say, "Socrates" we all have to know that "Socrates" cannot mean "Plato" (i.e. "not Socrates"). If I say, "Socrates is in Athens" it cannot also be the case that "Socrates is not in Athens." Or, if Robert is tall, he cannot at the same time also be short. There are several other laws or principals of logic and reasoning that you will learn, especially when you study formal logic in a book like *The Discovery of Deduction*.

Let's turn our attention now to the comparison of formal and informal logic. By doing this comparison, we will learn more about each kind of logic.

When you read the phrase *formal logic*, you might at first think that this kind of logic is more refined and "dressed up." You might think that informal logic is a more casual kind of logic, a kind "jeans and T-shirt" version of logic, and maybe you will think that formal logic is more serious and challenging. That's not the best way to look at it, though.

Formal logic focuses on the *form* that arguments take—forms like the syllogism that you observed in our last lesson. Our word *form* comes from the Latin *forma*, which means "shape" or "form." This means that formal logic is concerned with the structure of an argument, with how it is built. **Informal logic** is not so concerned with the logical form or structure of an argument. It is instead concerned with the way arguments are expressed in the everyday language that people use to discuss issues.

You might think about the difference this way: Every argument (even an informal one) has internal or underlying "bones," even when you can't see them. In formal logic, we seek to lay out these bones clearly for all to see. In informal logic, we focus on the "skin" of the argument—the way the argument is expressed in everyday speech, even though we know there are some bones underneath. We could also use a building as an analogy. You can easily see the outer walls of a building (informal logic), but there are beams, framing, and struts behind those walls (formal logic).

We typically don't make arguments with our friends using the formal structures of formal logic. Can you imagine what that would be like? Imagine a conversation in which you argue for watching the latest Spiderman movie:

> *I think we should all watch the latest Spiderman movie. First, I submit this major premise: All of the past Spiderman movies have been very good. Second, I submit this minor premise: The latest Spiderman movie is in fact another Spiderman movie in the collection of all of the others. Therefore, I conclude that this movie will also be very good as all the others in the collection are very good. I further conclude that we should therefore watch the latest Spiderman movie.*

Because this way of speaking becomes tedious in everyday conversation, we seldom, if ever, talk this way and we are probably all glad for it! Nonetheless, it is very helpful to know how to discern the structure that is behind everyday arguments. Put another way, it is helpful to know the logical forms behind our informal arguments.

Let's look more closely at the bones of your argument for watching the latest Spiderman movie:

• Major Premise: All Spiderman movies are very good.

• Minor Premise: The latest Spiderman movie is a Spiderman movie.

• Conclusion: Therefore, the latest Spiderman movie is a very good movie.

You will note that we changed one key element. Our major premise now states "that all Spiderman movies are very good"—not just the past ones, but *all* of them, which technically includes all future movies in this collection of "all Spiderman movies." By introducing this universal claim that all Spiderman moves are very good (past, present, and future movies), we make the logical relationships of our premises clear and tight, such that the conclusion must follow. This means that the form of this argument is valid (even if the statements aren't true). Note as well that our argument takes the form of a syllogism—an argument with two premises leading to a conclusion.

Let's look at another syllogism that uses the same valid form as our Spiderman syllogism:

• Major Premise: All birds have wings.

• Minor Premise: A cardinal is a bird.

• Conclusion: Therefore, a cardinal has wings.

This syllogism is a particular kind that begins with a premise that makes a universal statement about a class (category) of things (in this case, birds)—"all birds have wings." The second premise simply states there is a particular object (a cardinal) that belongs to that class (birds). The conclusion states that the particular object (the cardinal) has the quality that all members of that class have (wings). In formal logic, we call this a valid form, which means that the conclusion must follow from the premises.

But what if the premises are not true but false? Let's look at an example:

• Major Premise: All birds have horns. (False statement)

• Minor Premise: All poodles are birds. (False statement)

• Conclusion: Therefore, all poodles have horns. (False conclusion)

Well, the form of the logic is perfect here—this syllogism is valid in form! But because the premises are false, the conclusion is also false. So here we have a syllogism with a valid form but with false premises. If the premises
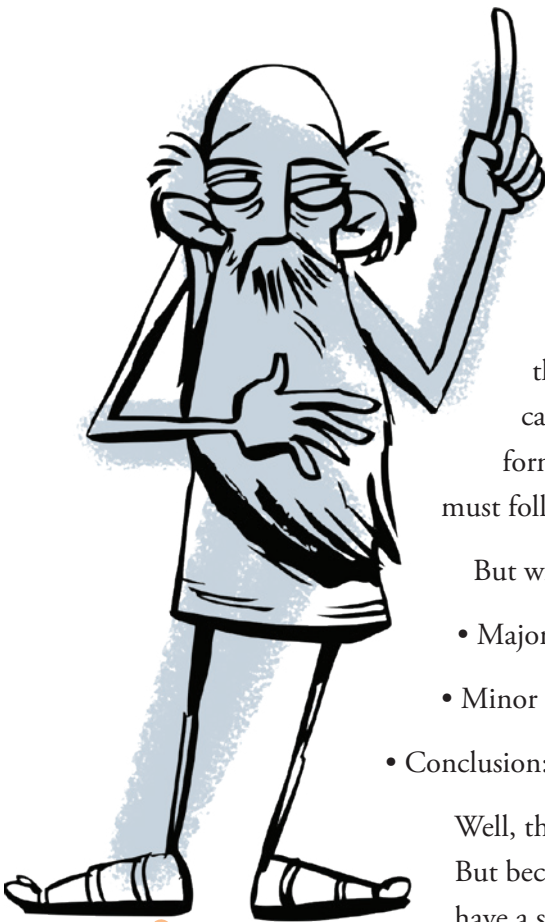
happened to be true (if all birds really did have horns, and if all poodles really were birds), then the conclusion would not only be valid but true!

When a syllogism has both a valid form and true premises, we call that a sound syllogism or argument. You might remember our formula from the last lesson: Truth + Validity = Sound Argument. If either the premises are false or the form is invalid, we have an *unsound* argument.

Here are two arguments that have an invalid form but true premises:

• Major Premise: If the cardinal is flying (antecedent), it is not in its nest (consequent).

• Minor Premise: The cardinal is not in its nest.

• Conclusion: Therefore, the cardinal is flying.

• Major Premise: If John studies (antecedent), he will pass the test (consequent).

• Minor Premise: John passes the test.

• Conclusion: Therefore, John studied.

These arguments suffer from a formal flaw, even though the premises are true. They have invalid form and so they must be unsound even though their premises are true. Can you see the ways in which their form fails? Just because a cardinal is not in its nest does not mean it must be flying. It could be on the ground hunting for worms! And just because John did indeed pass the test doesn't mean he studied. He could have cheated or guessed the correct answers on the test by luck. This kind of flawed form is called "affirming the consequent" because the second premise affirms the consequent (a thing that must be true if another is true) to prove the first thing (called the antecedent) true. In formal logic this is an example of a *formal* fallacy!

Formal Logic and the Use of Symbols

You can see that in formal logic, form is very important. In fact, as students study formal logic, they will begin to replace sentences and words with symbols so that they can more clearly see the "bones" or structure within an argument. Using symbols in this way enables us to evaluate the structure and validity of arguments more easily. By the way, logic is not only applied to arguments we make with language, but also to other areas of study that use symbols, such as computer coding and mathematics.

Students of formal logic learn to replace words such as "all birds have wings," with symbols, such as "all B are W" (for "all birds are wing possessors"). As we have seen, the form of an argument is the focus of formal logic and the content of the argument is secondary and even interchangeable.

When symbols such as "B" and "W" represent *categories* such as "birds" and "wings," this kind of formal logic is called **categorical logic**. When the symbols we use represent whole proposi-

tions (that is, statements of truth), we are entering the realm of **propositional logic**. When we use propositional logic, the symbols are joined together with other symbols that replace words such as "and," "or," "not," or "implies." These connecting symbols are called "logical operators." We use " " for "and" and "V" for "or" and "~" for "not." For example, we can represent "Either a cardinal is a bird, or it is not a bird" as "B V ~ B."

Here is a version of your argument for watching the latest Spiderman movie using symbols:

• Major Premise: All S are G. (All Spiderman movies are very good.)

• Minor Premise: LS is S. (The latest Spiderman move is a Spiderman movie.)

• Conclusion: Therefore, LS is G. (Therefore, the latest Spiderman movie is a very good movie.)

We can conclude this section by noting that formal logic attempts to analyze arguments by studying their form or structure. You might be tempted to think that while formal logic studies arguments, informal logic studies the fallacies—or those things that are *not* arguments. But this would not be true. The informal fallacies *are* arguments but they are *bad* arguments. They are arguments that fail for a lot of various reasons that you learn in this book. You might also be tempted to think that every fallacy (every fallacious argument) will be false. But this, too, would not be the case. A fallacious argument can still end up arriving at true conclusion despite its flaws. Here is an example:

LeBron James says that every student should study logic. LeBron James clearly knows how to master a skill! Therefore, it is clearly wise to study logic!

You will see later that this is kind of fallacy that appeals to an illegitimate authority. LeBron James is truly a master at basketball. But because he is a master of basketball would you take his advice on academic subjects? Or on economics? The conclusion of the argument happens to be true (it *is* wise to study logic!) but the argument is still fallacious.

Inductive vs. Deductive Reasoning

Now you know a bit about formal logic and its subcategories of categorical and propositional logic. You have also learned that formal logic involves the study of the "bones" or structure of arguments and that informal logic involves the study of arguments as they occur in everyday discussion and debate. Let's continue our comparison of formal and informal logic by considering the differences between inductive and deductive reasoning. Informal logic usually focuses on inductive reasoning and formal logic generally specializes in deductive reasoning.

The Latin word *deducere*, from which the English word *deduce* is derived, means "to lead down or away." Therefore, **deductive reasoning** is reasoning that starts with premises that "lead down" to a necessary conclusion. Deductive reasoning can be described as "whole-to-part" reasoning.

The Latin word *inducere*, from which the English word *induce* is derived, means "to lead in" or "bring in." **Inductive reasoning**, therefore, can be described as "part-to-whole" reasoning. When

we use inductive reasoning, we begin with particular facts and try to prove a general conclusion. Inductive reasoning involves bringing in particular facts to prove a more general point. For example, I may bring in the fact that *every bird I have seen flies* in order to prove that *all birds fly*. In other words, inductive reasoning often works toward generalizations that are reasonably accurate. However, because the form of inductive arguments does not lead to absolute certainty, these arguments are only more or less probable. For example, does my experience of seeing birds fly actually prove that *all* birds (without exception) fly? No. In fact, we know that the ostrich is a bird that can run very fast but cannot fly.

While deductive arguments, therefore, are said to be either valid or invalid, inductive arguments are said to be either strong or weak. Deductive logic addresses issues that are either "black" or "white," while inductive arguments deal in "shades of gray."

Formal Logic	Informal Logic
• Deductive reasoning	• Inductive reasoning
• Either valid or invalid	• Either strong or weak
• Certainty (given the premises)	• Probability

Conversational (Dialectical) Logic

The most fundamental difference between informal logic and formal logic is that informal logic deals almost entirely with ordinary-language arguments. In fact, one historian of logic described informal logic as "dialectical logic."[2] He meant that it is the language of debate and of the interchange of ideas between people, as opposed to the logic of one man reasoning all by himself. The word "dialectical" is from the Greek *dialektos*, which means "discourse," "debate," "language," and "talk" or "talking between." The study of informal logic focuses on the way people actually carry out conversation, discussion, and debate on a daily basis.

It would not be wise to study formal logic at the expense of informal logic or to study informal logic to the neglect of formal logic. The study of both will develop our ability to think and reason clearly and well. This book, however, will train you in informal logic and help you use it in the practical art of conversation, discussion, and "dialectic interplay" with real people.

In the next section, you are going to eavesdrop on a conversation about some of the practical implications of good and bad reasoning. Use your imagination and picture a TV room at a typical college, where Socrates is about to engage in a rather interesting conversation.

Argumentative Persuasion Fallacy Tree

Argumentative Persuasion

First Question: **What is the issue at hand?**
Next Questions:

Relevance → Is the argument relevant to the issue at hand?
Presumption → Is the argument assuming something that it shouldn't?
Clarity → Is the argument clear?

(_____ Arguments / _____ Reasoning)

Invalid (Formal Fallacies)

Valid

(_____ Arguments / _____ Reasoning)

Strong Arguments

Weak Arguments (Informal Fallacies)

Fallacies of _____

Ad Fontem
1. Ad Hominem Abusive
2. Ad Hominem Circumstantial
3. Tu Quoque
4. Genetic Fallacy

Emotion
1. Appeal to Fear
2. Appeal to Pity
3. Mob Appeal
4. Snob Appeal
5. Appeal to Illegitimate Authority
6. Chronological Snobbery

Red Herring
1. Appeal to Fear
2. Appeal to Pity
3. Mob Appeal
4. Snob Appeal
5. Appeal to Illegitimate Authority
6. Chronological Snobbery

Fallacies of _____

Presupposition
1. Begging the Question
2. Bifurcation (False Delimma)
3. Fallacy of Moderation
4. Is–Ought Fallacy
5. Fallacy of Composition
6. Fallacy of Division

Fallacies of _____
1. Equivocation
2. Accent
3. Distinction without a Difference

Induction
1. Hasty Generalization (Converse Accident)
2. Sweeping Generalization (Accident)
3. False Analogy
4. False Cause
5. Fake Precision

What Is Logic?

A. Fallacy Tree:

Using the terms in the word bank, fill in the fallacy tree on the previous page.

> **Word Bank**
>
> | | | | |
> |---|---|---|---|
> | Presumption | Formal | Deductive | Relevance |
> | Informal | Clarity | Inductive | |

B. Define:

1. Logic:

2. Formal Logic:

3. Informal Logic:

4. Deductive Reasoning:

5. Inductive Reasoning:

6. Truth:

7. Validity:

_____

_____

_____

C. Further Research:

Write short paragraphs in response to each of the following questions. Use available classroom resources, Internet sites, or library resources.

1. What are the main differences between deductive and inductive reasoning?

_____

_____

_____

_____

_____

2. What do you think the benefits of studying formal logic might be?

_____

_____

_____

_____

_____

3. What do you think the benefits of studying informal logic might be?

_____

_____

_____

_____

_____

4. How would you explain the difference between truth and validity?

_____

_____

_____

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_____
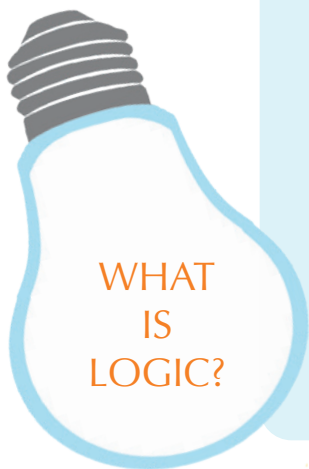
Dialogue on Logic . . . and Propaganda

Setting: Lobby in a college dormitory

Socrates: Excuse me, would you mind my asking what you are doing?

Tiffany: I'm watching TV. Isn't that obvious?

Socrates: Not so obvious as you might think. Your eyes, and mind, appeared to be elsewhere for a moment.

Tiffany: Oh. Well, it was just a boring commercial. I was thinking about something else while it was on.

Socrates: Boring? On the contrary, I think that commercials make some of the most interesting television these days.

**Tiffany:** Really? Why would you say that?

Socrates: Well, to begin with, they're often much more funny and more clever than the silly sitcoms aired so often these days. But that's not my main reason. For the most part, I like them because they are so filled with propaganda.

Tiffany: Propaganda! Isn't that a bad thing? What is propaganda anyway, and why would you want to listen to it?

Socrates: Whoa, whoa! One question at a time. I think that first I should answer your second question, in which you asked what **propaganda** is. In its most basic meaning, the sense in which I am using it, it means any sort of technique that people use to get other people (usually people that they don't really know personally) to do or to believe something that they otherwise might not. Commercials often use propaganda to get people to buy things.

Tiffany: So why would you want to listen to people trying to get you to buy things? Do you like shopping?

Socrates: Not really. You can see from my outfit that I'm not exactly at the height of fashion.
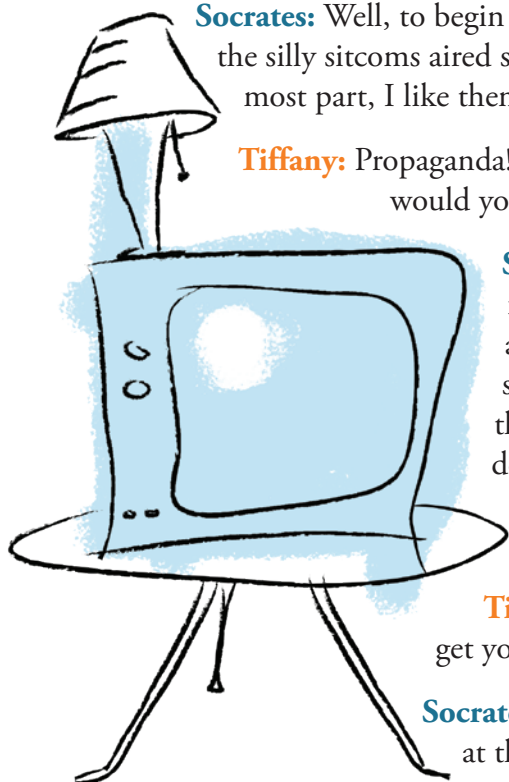
Tiffany: Yeah, I was just about to ask you about that. Where do you do your shopping, at the Sears White Sale? Don't you get cold in that outfit?

Socrates: Actually, I was often made fun of in my day for absentmindedly forgetting my cloak. And, no, I did not shop at a white sale. I purchased this from the tailor back in my country.

Tiffany: What is your country? And what is your name, by the way?

Socrates: I am Socrates, and I am from ancient Athens.

Tiffany: Sure, and I am Cleopatra, Queen of Denial.

Socrates: Pleased to meet you. Mind if I call you Cleo for short?

Tiffany: No, no; my name's not Cleo. It's Tiffany.

Socrates: Then why did you say your name was Cleopatra?

Tiffany: Because you said your name was Socrates.

Socrates: My name *is* Socrates.

Tiffany: Look, I don't want to argue with you.

Socrates: But I would love to argue with you.

Tiffany: Why would anyone like to argue?

Socrates: Well, let me first explain. By "argue," I don't mean engage in petty squabbling. I think that may be what most people mean most of the time when they say the word "arguing." Let me turn the question to you. What would you do if someone asked you why you believe what you believe?

Tiffany: Well, I suppose that I would give them reasons.

Socrates: In that case, you would be making an argument, at least in the sense in which I mean it. I'm a philosopher and when we philosophers use the term "argue," we usually mean "to provide rational reasons for or against an idea or action."

Tiffany: So why would a philosopher like watching propaganda?

Socrates: Good question. We did get a bit off of the track there, didn't we? I like to watch propaganda because it provides a good opportunity to evaluate arguments. You see, whenever someone tries to get you to do anything, they are trying to persuade you. Usually, when someone is trying to persuade you, they give reasons, and whenever they do, they are making an argument.

Tiffany: That's all it takes to make an argument? You just have to give a reason for something?

Socrates: That's basically it. The reasons that you give are called the premises, and the thing for which you are giving the reasons is called the conclusion.

Tiffany: But . . . not all propaganda makes an argument. Take this commercial with the frogs and lizards that is trying to sell beer, for example. What kind of argument is it making?

Socrates: That is another good question. Here's an idea: Perhaps it is making an implied argument that goes something like this: "We make clever, funny commercials about frogs and lizards that entertain millions. You should buy our beer to show your appreciation for this public service."

Tiffany: That doesn't have anything at all to do with whether or not it is a good product.

Socrates: You are absolutely right once again. This brings to mind the first of the three great principles of critical thinking: relevance. Do the premises really "bear upon," or provide some support for, the conclusion? If not, the argument is just a distraction from the real issue.

Tiffany: Aren't you reading an awful lot into this commercial, though?

Socrates: Well, you're right. I was only being facetious. That commercial might be better explained as a form of "**non-argumentative persuasion**"—an attempt to convince you without making an open argument at all. That is something for which we need to be especially careful. After all, if someone wants to convince you to do something without giving you a single rational reason . . . Oh, but here is a perfect example of an irrelevant argument now. *(Both Socrates and Tiffany turn to watch a Peps-U-Up soda commercial on television.)* What reasons are they giving you to buy that soft drink?

Tiffany: Well, they seem to be saying that since tennis superstar Serena Williams likes Peps-U-Up soda, you should go and buy it as well.

Socrates: Exactly. That is called an argument from illegitimate authority, and since there is no good reason to accept the authority of Serena Williams on the subject of soft drink desirability, it commits a very important fallacy.

Tiffany: What, exactly, is a "fallacy"?

Socrates: A fallacy is a commonly recognized type of bad argument.

Tiffany: Commonly recognized by whom?

Socrates: Good point. Unfortunately, the study of logic isn't exactly its highest ebb these days and these fallacies aren't as commonly recognized as they ought to be. What I really mean by "commonly

recognized" is that it is commonly recognized by those who have studied philosophy or logic.

Tiffany: So what type of fallacy does that commercial make?

Socrates: It's called the appeal to illegitimate authority. It is one of many fallacies of relevance.

Tiffany: So that's why you like commercials. You like to analyze them.

Socrates: Absolutely. Every commercial contains an attempt at persuasion. In almost every case, it will be one of three types: (1) a reasonable argument; (2) a bad type of argument, called a fallacy; or, perhaps worst of all, (3) an attempt to persuade without an argument, which is called non-argumentative persuasion.

Tiffany: Somehow, I thought that all of you philosopher types just sat around and asked dumb questions, like "how do I know that I really exist?"

Socrates: Well, there are many things that I like to question, but my existence is not one of them. Do you know how I generally respond to people who ask me how they can really know they exist?

Tiffany: How is that?

Socrates: I simply ask them, "Who wants to know?"

Tiffany: Well, that settles it for me.

Socrates: As it does for me. I must be off, but something tells me we will speak more later.

A. Define the Following Terms:

1. Fallacy:

_____

_____

_____

2. Relevance:

_____

_____

_____

3. Persuasion:

_____

_____

_____

4. Propaganda:

_____

_____

_____

B. Further Research:

Respond to each of the following questions.

1. How would you define the principle of relevance? Socrates has given you a few ideas. Give an example of an argument that is relevant and one that is not.

_____

_____

_____

_____

_____

_____

2. Write down three examples of non-argumentative persuasion that you have come across when reading or when watching a movie, a video online, or a TV show. Or, create three examples of your own.

_____

_____

_____

_____

_____

_____

3. Create your own example of non-argumentative persuasion.

_____

_____

_____

_____

_____

_____