

Chapter One

Introduction

1 *The Elements of an Argument*

Consider the following simple example of reasoning:

Identical twins often have different IQ test scores. Yet such twins inherit the same genes. So environment must play some part in determining IQ.

Logicians call this kind of reasoning an **argument**. (But they don't have in mind shouting or fighting. Rather, their concern is *arguing for* or presenting reasons for a conclusion.) In this case, the argument consists of three statements:

1. Identical twins often have different IQ test scores.
2. Identical twins inherit the same genes.
3. So environment must play some part in determining IQ.

The first two statements in this argument give *reasons* for accepting the third. In logic terms, they are said to be **premises** of the argument, and the third statement is called the argument's **conclusion**. An argument can be defined as a series of statements, one of which is the conclusion (the thing argued for) and the others are the premises (reasons for accepting the conclusion).

In everyday life, few of us bother to explicitly label premises or conclusions. We usually don't even bother to distinguish one argument from another. But good writing provides clues that signal the presence of an argument. Such words as "because," "since," and "for" usually indicate that what follows is a premise. And words such as "therefore," "hence," "consequently," and "so" usually signal a conclusion. Similarly, such expressions as "It has been observed that . . .," "In support of this . . .," and "The relevant data . . ." generally introduce premises, whereas expressions such as "It follows that . . .," "The result is . . .," "The point of all this is . . .," and "The implication is . . ." usually signal conclusions. Here is a simple example:

Since it's wrong to kill a human being, *it follows that* abortion is wrong, *because* abortion takes the life of (kills) a human being.

In this example, the words “since” and “because” signal premises offered in support of the conclusion signaled by the phrase “it follows that.” Put into textbook form, the argument reads,

1. It’s wrong to kill a human being.
2. Abortion takes the life of (kills) a human being.
- ∴ 3. Abortion is wrong.

The symbol “∴” represents the word “therefore” and indicates that what follows is a conclusion. This particular argument has two premises, but an argument may have any number of premises (even only one!) and may be surrounded by or embedded in other arguments.

Not just any group of sentences makes an argument. The sentences in an argument must express statements—that is, say something that is either true or false. Many sentences are used for other purposes: to ask questions, to issue commands, or to give vent to emotions. In ordinary contexts none of the following express statements:

- Open the door. (*command*)
 Who’s the boss here? (*question*)
 Thank goodness! (*expression of emotion*)

Of course, sometimes nondeclarative sentences are indeed used to make statements. “Who’s the boss here?” *can* be used to make a statement, particularly if the boss is talking. In this case the boss is not really asking a question at all, but rather is saying, “I am the boss here,” thus declaring a fact under the guise of asking a question.

But even if every sentence in a group of sentences expresses a statement, the result is not necessarily an argument. The statements must be related to one another in the appropriate way. Something must be argued for (the conclusion), and there must be reasons for accepting the conclusion. Thus, mere bald assertions are not arguments, anecdotes generally are not arguments, nor are most other forms of exposition or explanation. It’s important to understand the difference between rhetoric that is primarily expository or explanatory and rhetoric that is basically argumentative. A passage that contains only exposition gives us no reason to accept the “facts” in it other than the authority of the writer or speaker, whereas passages that contain arguments give reasons for some of their claims (conclusions) and call for a different sort of evaluation than merely an evaluation of the authority of the writer.

Examples

Two of the following groups of statements constitute arguments, and two do not. These examples also illustrate that although words such as “therefore” and “because” usually signal the presence of an argument, this is not always the case.

1. I believe in God because that is how I was raised. (This is biography, not an argument. “Because” is used here to indicate the cause of the speaker’s belief—to give an explanation—not to signal a premise.)

2. I believe in God because life has meaning. If there is no God, life would be meaningless. (This is an argument. The speaker is advancing a reason to believe that God exists.) Here is the argument put into textbook form:

1. Life has meaning.
2. If there were no God, life would be meaningless.
- ∴ 3. God exists.

(Notice that in this case the word “because” does signal that a premise is to follow.)

3. Biff was obviously afraid of making a commitment to a long-term relationship. Therefore, Susie was not surprised when they eventually broke up. (This is not an argument. This is an explanation of why Susie was not surprised.)
4. We’ll get a tax break if we marry before the end of the year. Therefore, I think we should move our wedding date up and not wait until January. (This is an argument.)
1. We’ll get a tax break if we marry before the end of the year.
 - ∴ 2. We should move our wedding date up and not wait until January.

Exercise 1-1

Here are fifteen passages (the first six are from student papers and exams, modestly edited). Determine which contain arguments and which do not. Label the premises and conclusions of those that do, and explain your answers. Paraphrase if that makes things clearer. (Even-numbered items in most exercise sets are answered in a section at the back of the book.)

1. I don’t like big-time college football. I don’t like pro football on TV either. In fact, I don’t like sports, period.
2. My summer vacation was spent working in Las Vegas. I worked as a waitress at the Desert Inn and made tons of money. But I guess I got addicted to the slots and didn’t save too much. Next summer my friend Hal and I are going to work in Reno if we can find jobs there.
3. Well, I have a special reason for believing in big-time college football. After all, I wouldn’t have come here if Ohio State’s football team hadn’t gone to the Rose Bowl, because that’s how I heard about this place to begin with.
4. At the present rate of consumption, the oil will be used up in 20 to 25 years. And we’re sure not going to reduce consumption in the near future. So we’d better start developing solar power, windmills, and other “alternative energy sources” pretty soon.
5. The abortion issue is blown all out of proportion. How come we don’t hear nearly as much about the evils of birth control pills? After all, a lot more potential people are “killed” by the pill than by abortion.
6. I’ve often wondered how they make lead pencils. Of course, they don’t use lead, they use graphite. But I mean, How do they get the graphite into the wood? That’s my