4.1 What Is a Fallacy?

We all strive to reason correctly, so one of the central tasks of logic is to identify the ways in which we are tempted to reason incorrectly. We reason incorrectly when the premises of an argument fail to support its conclusion, and argument of that sort may be called fallacious. So in a very general sense, any error in reasoning is a fallacy.

Logicians, however, commonly use the term “fallacy” more narrowly, to designate not any errors in reasoning, but typical errors—mistakes in reasoning that exhibit a pattern that can be identified and named. The great logician Gottlob Frege observed that it is one of the logician’s tasks to “indicate the pitfalls laid by language in the way of the thinker.” In this book we use the term in this way.

In this narrower sense, each fallacy is a type of incorrect argument. Of course, many different arguments may make an error of some given type, that is, it may exhibit the same kind of mistake in reasoning. Any argument that does exhibit that kind of mistake is said to commit that fallacy. The particular argument that commits some known fallacy is commonly said to be a fallacy, because it is an individual example of that typical mistake.

To illustrate, if one accepts the premise that all science is essentially materialistic and then goes on to argue that Karl Marx, a very influential philosopher of the nineteenth century who was certainly a materialist, must therefore have been scientific, one reasons badly. It may indeed be true that Marx was scientific (as he claimed to be), but it does not follow from the fact that he was a materialist (which he certainly was) that he was scientific. The bad reasoning here is fallacious. If every P is a Q, it does not follow from the fact that one is a
Q that he is a P. All dogs are mammals, but not every mammal is a dog. We identify here a pattern of mistake; it is a very common mistake that we will explore in detail in Chapter 8. Because that pattern of error, or fallacy, appears in many different contexts, we flag it, and we warn against it by giving it a name: “the fallacy of affirming the consequent.” The argument concerning Karl Marx is a fallacy because it commits that fallacy, and the fallacy it commits is the fallacy of affirming the consequent.

In this illustration the mistake that has been made is called a formal fallacy; it is a pattern of mistake that appears in deductive arguments of a certain specifiable form. There are other formal fallacies, and we shall examine them in Chapter 8. Most fallacies, however, are not formal but informal: They are patterns of mistake that are made in the everyday uses of language. Informal fallacies, which we examine very closely in this chapter, arise from confusions concerning the content of the language used. There is no limit to the variety of forms in which that content may appear, and thus informal fallacies are often more difficult to detect than formal ones. It is language that deceives us here; we may be tricked by inferences that seem plausible on the surface but are in fact not warranted. Such traps, the “pitfalls” that language sets, can be avoided if the patterns of those mistakes are well understood. We devote considerable attention to these informal fallacies—the kinds of mistakes made in everyday speaking and writing, and commonly encountered, for example, in the “letters to the editor” in daily newspapers. These are the logical mistakes that we will name and explain.

Because language is slippery and imprecise, we must be cautious in this enterprise. Of course we must be careful not to make the mistakes in question, but we must also be careful to refrain from accusing others of making mistakes when they do not really do so. If we encounter an argument that appears to be fallacious, we must ask ourselves what really was meant by terms being used. The accusation of fallacy is sometimes unjustly leveled at a passage intended by its author to make a point that the critic has missed—perhaps even to make a joke. As we identify and classify the patterns of mistake in spoken and written language, we must try to penetrate the language used. Our logical standards should be high, but our application of those standards to arguments in ordinary life should also be generous and fair.

4.2 Classification of Fallacies

Informal fallacies are numerous and can therefore be best understood if they are grouped into categories, each with clearly identifiable features. This classification of fallacies is a controversial matter in logic. There is no one correct taxonomy of fallacies. Logicians have proposed lists of fallacies that vary greatly in length; different sets have been specified, and different names have