

◆ 3.3 Fallacies of Ambiguity

Arguments sometimes fail because their formulation contains ambiguous words or phrases, whose meanings shift and change within the course of the argument, thus rendering it fallacious. These are the fallacies of ambiguity—“sophisms,” as they are sometimes called—and while they are often crude and easily detected, they do at times prove subtle and dangerous. Five varieties are distinguished below.

1. Equivocation

Most words have more than one literal meaning, and most of the time, we have no difficulty in keeping these meanings apart by using the context and our good sense in reading and listening. When we confuse the several meanings of a word or phrase—accidentally or deliberately—we are using the word equivocally. If we do that in the context of an argument, we commit the fallacy of equivocation.

Sometimes the equivocation is obvious and absurd and is used in a joking line or passage. Lewis Carroll's account of the adventures of Alice in *Through the Looking Glass* is replete with clever and amusing equivocations. One of them goes like this:

“Who did you pass on the road?” the King went on, holding his hand out to the messenger for some hay.

“Nobody,” said the messenger.

“Quite right,” said the King; “this young lady saw him too. So of course Nobody walks slower than you.”

The equivocation in this passage is rather subtle. As it is first used here the word “nobody” simply means “no person.” But reference is then made using

a pronoun ("him") as though that word ("nobody") had named a person. And when subsequently the same word is capitalized and plainly used as a name ("Nobody"), it putatively names a person having a characteristic (not being passed on the road) derived from the first use of the word. Equivocation is sometimes the tool of wit—and Lewis Carroll was a very witty logician. Equivocal arguments are always fallacious, but they are not always silly or comic, as will be seen in the example discussed in the following excerpt:

There is an ambiguity in the phrase "have faith in" that helps to make faith look respectable. When a man says that he has faith in the president he is assuming that it is obvious and known to everybody that there is a president, that the president exists, and he is asserting his confidence that the president will do good work on the whole. But, if a man says he has faith in telepathy, he does not mean that he is confident that telepathy will do good work on the whole, but that he believes that telepathy really occurs sometimes, that telepathy exists. Thus the phrase "to have faith in x" sometimes means to be confident that good work will be done by x, who is assumed or known to exist, but at other times means to believe that x exists. Which does it mean in the phrase "have faith in God"? It means ambiguously both; and the selfevidence of what it means in the one sense recommends what it means in the other sense. If there is a perfectly powerful and good god it is selfevidently reasonable to believe that he will do good. In this sense "have faith in God" is a reasonable exhortation. But it insinuates the other sense, namely "believe that there is a perfectly powerful and good god, no matter what the evidence." Thus the reasonableness of trusting God if he exists is used to make it seem also reasonable to believe that he exists.²¹

There is a special kind of equivocation that deserves special mention. This has to do with "relative" terms, which have different meanings in different contexts. For example, the word "tall" is a relative word; a tall man and a tall building are in quite different categories. A tall man is one who is taller than most men, a tall building is one that is taller than most buildings. Certain forms of argument that are valid for nonrelative terms break down when relative terms are substituted for them. The argument "an elephant is an animal; therefore a gray elephant is a gray animal" is perfectly valid. The word "gray" is a nonrelative term. But the argument "an elephant is an animal; therefore a small elephant is a small animal" is ridiculous. The point here is that "small" is a relative term: a small elephant is a very large animal. The fallacy is one of equivocation on the relative term "small." Not all equivocation on relative terms is so obvious, however. The word "good" is a relative term and is frequently equivocated on when it is argued, for example,

²¹Richard Robinson, *An Atheist's Values* (Oxford University Press, Oxford, 1964), 121.

that so-and-so is a good general and would therefore be a good president or is a good scholar and must therefore be a good teacher.

2. Amphiboly

The fallacy of amphiboly occurs in arguing from premisses whose formulations are ambiguous because of their grammatical construction. A statement is **amphibolous** when its meaning is indeterminate because of the loose or awkward way in which its words are combined. An amphibolous statement may be true in one interpretation and false in another. When it is stated as a premiss with the interpretation that makes it true, and a conclusion is drawn from it on the interpretation that makes it false, then the fallacy of amphiboly has been committed.

Amphibolous utterances were the chief stock in trade of the ancient oracles. Croesus, the king of Lydia, is said to have consulted the Oracle of Delphi before beginning his war with the kingdom of Persia. "If Croesus went to war with Cyrus," came the oracular reply, "he would destroy a mighty kingdom." Delighted with this prediction, which he took to mean that he would destroy the mighty kingdom of Persia, he attacked and was crushed by Cyrus, king of the Persians. His life having been spared, he complained bitterly to the Oracle, whose priests pointed out in reply that the Oracle had been entirely right: In going to war, Croesus, had destroyed a mighty kingdom—his own! Amphibolous statements make dangerous premisses. They are, however, seldom encountered in serious discussion.

What grammarians call "dangling" participles and phrases often present amphiboly of an entertaining sort, as in "The farmer blew out his brains after taking affectionate farewell of his family with a shotgun." And tidbits in *The New Yorker* make acid fun of writers and editors who overlook careless amphiboly:

"Leaking badly, manned by a skeleton crew, one infirmity after another overtakes the little ship." (*The Herald Tribune*, Book Section)

Those game little infirmities!²²

3. Accent

An argument may prove deceptive, and invalid, when the shift of meaning within it arises from changes in the emphasis given to its words or parts. When a premiss relies for its apparent meaning on one possible emphasis, but a conclusion is drawn from it that relies on the meaning of the same words accented differently, the **fallacy of accent** is committed.

²²*The New Yorker*, 8 Nov. 1958.

Consider, as illustration, the different meanings that can be given to the statement

We should not speak ill of our friends.

At least five distinct meanings—or more?—can be given to those eight words, depending on which one of them is emphasized. When read without any undue stresses, the injunction is perfectly sound. If the conclusion is drawn from it, however, that we should feel free to speak ill of someone who is *not* our friend, this conclusion follows only if the premiss has the meaning it acquires when its last word is accented. But when its last word is accented, it is no longer acceptable as a moral rule; it has a different meaning, and it is, in fact, a different premiss. The argument is a case of the fallacy of accent. So, too, would be the argument that drew from the same premiss the conclusion that we are free to *work* ill on our friends if only we do not speak it—and similarly with the other fallacious inferences that suggest themselves.

A phrase or passage can often be understood correctly only in its context, which makes clear the *sense* in which it is intended. The fallacy of accent may be construed broadly to include the distortion produced by pulling a quoted passage out of its context, putting it in another context, and there drawing a conclusion that could never have been drawn in the original context. This quotation out of context is sometimes done with deliberate craftiness. In the presidential election of 1988, *The New Republic* endorsed the Democratic candidate, Michael Dukakis. Its editor in chief, Martin Peretz, criticizing the Democratic Convention in his own periodical, wrote, "I believe that anti-Semitism was at work on the convention floor, and other observers and delegates experienced it at state caucuses."²³ Several weeks later, as the campaign became more heated, an advertisement paid for by the New York Republican State Committee appeared in the *New York Times*, urging Jews to vote Republican, and quoting Peretz out of context. Peretz responded with anger: "This selective quotation is an act of intellectual dishonesty and fraud on the voters. . . . I plan to vote the Democratic ticket."²⁴

Another damaging use of accent in referring to another's writings is the deliberate insertion (or deletion) of italics to change the meaning of what was originally written. Or there may be a deliberate omission of a qualification made by the author; or the paraphrasing may greatly change the meaning of the original. In a critical essay about conservative thinkers, Sidney Blumenthal wrote (in 1985) about one such thinker, Gregory A. Fossedal, that "On the right, Fossedal is widely regarded as his generation's most promising journalist." A 1989 advertisement for a later book by Mr. Fossedal contained

several "blurbs," including this one attributed to Mr. Blumenthal: "Many consider Fossedal the most promising journalist of his generation." The omission of the critic's phrase "on the right" very greatly distorts the sense of the original passage, leading the reader to draw a mistaken conclusion about the critic's judgment of the author. Mr. Blumenthal was understandably infuriated.²⁵

Similarly, a theater critic who says of a new play that it is far from the funniest appearing on Broadway this year may be quoted in an ad for the play: "Funniest appearing on Broadway this year!" To avoid such distortions, and the fallacies of accent that may be built on them, the responsible writer must be scrupulously accurate in quotation, always indicating whether italics were in the original, indicating (with dots) whether passages have been omitted, and so on.

Physical devices are frequently used to mislead with accent, in print and with pictures. Sensational words in large letters appear in the headings of newspaper reports, qualified sharply by other words in much smaller letters, so as to suggest fallacious arguments, deliberately, to the mind of the reader. For this reason, one is well advised, before signing any contract, to give careful attention to the "small print." In political propaganda, the misleading choice of a sensational heading or the use of a clipped photograph, in what purports to be a factual report, will use accent shrewdly to encourage conclusions known by the propagandist to be false. An account that may not be an outright lie may yet distort by accent in ways that are deliberately manipulative or dishonest.

In advertising, such practices are not rare. A remarkably low price often appears in very large letters, followed by "and up" in tiny print. Wonderful bargains in airplane fares are followed by an asterisk, with a distant footnote explaining that the price is available only three months in advance for flights on Thursdays following a full moon, or that there may be other "applicable restrictions." Costly items with well-known brand names are advertised at very low prices, with a small note elsewhere in the ad that "prices listed are for limited quantities in stock." Readers drawn into the store but unable to make the purchase at the advertised price may have been deliberately tricked. Accented passages, by themselves, are not strictly fallacies; they become embedded in fallacies when one interpretation of a phrase, flowing from its accent, is relied on to draw a conclusion (e.g., that the plane ticket or brand item can be advantageously purchased at the listed price) that is very doubtful when account is taken of the misleading accent.

²³ "A (Dis)sident Democrat's Lament," *The New Republic*, 29 Aug. 1988, 25.

²⁴ "Dishonest Election Ad," *New York Times*, 21 Oct. 1988.

²⁵ "You Write the Facts, I'll Write the Blurbs," *New York Times*, 18 April 1989. The original passage appeared in *The Washington Post*, 22 Nov. 1985; the offending advertisement appeared in *The New Republic* in March 1989. Mr. Fossedal subsequently apologized to Mr. Blumenthal.

Even the literal truth can be used, by manipulation of its placement, to deceive with accent. Disgusted with his first mate who was repeatedly inebriated on duty, the captain of a ship noted in the ship's logbook, almost every day, "The mate was drunk today." The angry mate took his revenge. Keeping the log himself on a day the captain was ill, the mate recorded, "The captain was sober today."

4. Composition

The term "fallacy of composition" is applied to both of two closely related types of invalid argument. The first may be described as **reasoning fallaciously from the attributes of the parts of a whole to the attributes of the whole itself**. A particularly flagrant example would be to argue that, since every part of a certain machine is light in weight, the machine "as a whole" is light in weight. The error here is manifest when we recognize that a very heavy machine may consist of a very large number of lightweight parts. Not all examples of this kind of fallacious composition are so obvious, however. Some are misleading. One may hear it seriously argued that, since each scene of a certain play is a model of artistic perfection, the play as a whole is artistically perfect. But this is as much a fallacy of composition as it would be to argue that, since every ship is ready for battle, the whole fleet must be ready for battle.

The other type of composition fallacy is strictly parallel to that just described. Here, the fallacious reasoning is **from attributes of the individual elements or members of a collection to attributes of the collection or totality of those elements**. For example, it would be fallacious to argue that, because a bus uses more gasoline than an automobile, therefore all buses use more gasoline than all automobiles. This version of the fallacy of composition turns on a confusion between the "distributive" and the "collective" use of general terms. Thus, although college students may enroll in no more than six different classes each semester, it is also true that college students enroll in hundreds of different classes each semester. This verbal conflict is easily resolved. It is true of college students, distributively, that each of them may enroll in no more than six classes each semester. This is a distributive use of the term "college students" in that we are speaking of college students *taken singly*. But it is true of college students, collectively, that they enroll in hundreds of different classes each semester. This is a collective use of the term "college students" in that we are speaking of college students *all together*, as a totality. Thus buses use more gasoline than automobiles, distributively, but collectively automobiles use more gasoline than buses, because there are so many more of them.

This second kind of composition fallacy may be defined as the **invalid inference that what may truly be predicated of a term distributively may also be truly predicated of the term collectively**. Thus the atomic bombs dropped

during World War II did more damage than did the ordinary bombs dropped—but only distributively. The matter is exactly reversed when the two kinds of bombs are considered collectively, because there were so many more conventional bombs dropped than atomic ones. Ignoring this distinction in an argument would permit the fallacy of composition.

These two varieties of composition, although parallel, are really distinct because of the difference between a mere collection of elements and a whole constructed out of those elements. Thus a mere collection of parts is no machine; a mere collection of bricks is neither a house nor a wall. A whole like a machine, a house, or a wall has its parts organized or arranged in certain definite ways. And since organized wholes and mere collections are distinct, so are the two versions of the composition fallacy, one proceeding invalidly to wholes from their parts, the other proceeding invalidly to collections from their members or elements.

5. Division

The fallacy of division is simply the reverse of the fallacy of composition. In it, the same confusion is present, but the inference proceeds in the opposite direction. As in the case of composition, two varieties of the fallacy of division may be distinguished. **The first kind of division consists in arguing fallaciously that what is true of a whole must also be true of its parts**. To argue that, since a certain corporation is very important and Mr. Doe is an official of that corporation, therefore Mr. Doe is very important, is to commit the fallacy of division. This first variety of the division fallacy would be committed in any such argument, as in going from the premiss that a certain machine is heavy, or complicated, or valuable, to the conclusion that this or any other part of the machine must be heavy, or complicated, or valuable. To argue that a student must have a large room because it is located in a large dormitory would be still another instance of the first kind of fallacy of division.

The second type of division fallacy is committed when one argues from the attributes of a collection of elements to the attributes of the elements themselves. To argue that, since university students study medicine, law, engineering, dentistry, and architecture, therefore each, or even any, university student studies medicine, law, engineering, dentistry, and architecture would be to commit the second kind of division fallacy. It is true that university students, collectively, study all these various subjects, but it is false that university students, distributively, do so. Instances of this variety of the fallacy of division often look like valid arguments, for what is true of a class distributively is certainly true of each and every member. Thus the argument

Dogs are carnivorous.

Afghan hounds are dogs.

Therefore Afghan hounds are carnivorous.

is perfectly valid. Closely resembling this argument is another,

Dogs are frequently encountered in the streets.

Afghan hounds are dogs.

Therefore Afghan hounds are frequently encountered in the streets.

which is invalid, committing the fallacy of division. Some instances of division are obviously jokes, as when the classical example of valid argumentation

Humans are mortal.

Socrates is a human.

Therefore Socrates is mortal.

is parodied by the fallacious

American Indians are disappearing.

That man is an American Indian.

Therefore that man is disappearing.

The old riddle "Why do white sheep eat more than black ones?" turns on the confusion involved in the fallacy of Division, for the answer, "Because there are more of them," treats collectively what seemed to be referred to distributively in the question.

There are resemblances between the fallacies of division and accident and also between the fallacies of composition and converse accident. But these likenesses are only superficial, and an explanation of the real differences between the members of the two pairs will be helpful in explaining the errors committed in all four.

If we were to infer, from looking at one or two parts of a large machine, that, because they happen to be well designed, every one of its many parts is well designed, we would commit the fallacy of converse accident, for what is true about one or two surely may not be true of all. If we were to examine every single part and find each carefully made, and from that finding infer that the entire machine is carefully made, we would also reason fallaciously, because, however carefully the parts were produced, they may have been *assembled* awkwardly or carelessly. But here the fallacy is one of composition. In converse accident, one argues that some atypical members of a class have a specified attribute, and therefore that all members of the class, distributively, have that attribute; in composition, one argues that, since each and every member of the class has that attribute, the class *itself* (collectively) has that attribute. The difference is great. In converse accident, all predications are distributive, whereas in composition, the mistaken inference is from distributive to collective predication.

Similarly, division and accident are two distinct fallacies; their superficial resemblance hides the same kind of underlying difference. In division, we argue (mistakenly) that, since the class itself has a given attribute, each of its members also has it. Thus it is the fallacy of division to conclude that, because

an army as a whole is nearly invincible, each of its units is nearly invincible. But in accident, we argue (also mistakenly) that, because some rule applies in general, there are no special circumstances in which it might not apply. Thus we commit the fallacy of accident when we insist that a person should be fined for ignoring a "no swimming" sign when jumping into the water to rescue someone from drowning.

Ambiguity—a shift in the meanings of the terms used—lies at the heart of the fallacies of composition and division, as it does also at the heart of equivocation, amphiboly, and accent. Wherever the words or phrases used may mean one thing in one part of the argument and another thing in another part, and wherever those meanings are deliberately or accidentally confounded, we may anticipate serious logical mistakes.

EXERCISES

I. Identify the fallacies of ambiguity in the following passages, and explain how each specific passage involves that fallacy or fallacies.

- * 1. Robert Toombs is reputed to have said, just before the Civil War, "We could lick those Yankees with cornstalks." When he was asked after the war what had gone wrong, he is reputed to have said, "It's very simple. Those damyankees refused to fight with cornstalks."

—E. J. KAHN, JR., "Profiles (Georgia)," *The New Yorker*, 13 February 1978

2. If the parts of the Universe are not accidental, how can the whole Universe be considered as the result of chance? Therefore the existence of the Universe is not due to chance.

—MOSES MAIMONIDES, *The Guide for the Perplexed*

3. And to judge still better of the minute perceptions which we cannot distinguish in the crowd. I am wont to make use of the example of the roar or noise of the sea which strikes one when on its shore. To understand this noise as it is made, it would be necessary to hear the parts which compose this whole, i.e., the noise of each wave, although each of these little noises . . . would not be noticed if the wave which makes it were alone. For it must be that we are affected a little by the motion of this wave, and that we have some perception of each one of these noises, small as they are; otherwise we would not have that of a hundred thousand waves, since a hundred thousand nothings cannot make something.

—GOTTFRIED LEIBNIZ, *New Essays Concerning Human Understanding*

◆ 3.4 Avoiding Fallacies

Fallacies are pitfalls into which any of us may stumble in our reasoning. Just as danger signals are posted to warn travelers away from hazards on their route, so the labels for fallacies presented in this chapter may be regarded as so many danger signals posted to keep us away from the widespread quagmires of incorrect argument. Understanding these errors to which we are all prone, and developing the ability to analyze them and to name them, may very well help us to keep from becoming their victims. But there is no mechanical test for the fallacies, no sure way to avoid the traps that they set up.

To avoid the fallacies of relevance requires constant intellectual vigilance; we must be aware of the many different ways in which irrelevance may intrude. Our study of the various uses of language, in Chapter 2, will be helpful in this connection. A realization of the flexibility of language and the multiplicity of its uses will help to keep us from mistaking the expressive uses of language for its informative uses. Sensitive to the weave of different functions, we are less likely to receive an exhortation to approve some proposition as though it were an argument that supports the truth of that proposition, or to treat an attack on the speaker as an argument against her or his views.

It is when the gap between premisses and conclusion is great and the error in reasoning blatant that we are most likely to call the blunder a *non sequitur*. In a speech in Chicago in 1854, Abraham Lincoln said:

It was a great trick among some public speakers to hurl a naked absurdity at his audience, with such confidence that they should be puzzled to know if the speaker didn't see some point of great magnitude in it which entirely escaped their observation. A neatly varnished sophism would be readily penetrated,

but a great, rough, *non sequitur* was sometimes twice as dangerous as a well polished fallacy.²⁶

But the fallacies of ambiguity, unlike the "great, rough, *non sequitur*," are often subtle. Words are slippery; most of them have a variety of different senses or meanings, which may be confused in fallacious reasoning. To avoid the various fallacies of ambiguity, we must have and keep the meanings of our terms clearly in mind. One way to accomplish this is by defining the key terms that we use. Ambiguity can be avoided by the careful definition of terms, which wards off inadvertent shifts in meaning by ourselves, and which blocks the sometimes deliberate manipulation of meanings by others. For this reason *definition* is a matter of importance to the student of logic—and it is the topic to which our next chapter is devoted.

EXERCISES

Among the following passages, identify those in which there is a fallacy; if there is a fallacy, analyze it, give its kind (whether of relevance or ambiguity) and its specific name, and explain the occurrence of that fallacy in the passage.

- * 1. Agatha Christie's second husband, Max Mallowan, was a distinguished archaeologist. Christie was once asked how she felt about being married to a man whose primary interest lay in antiquities.
"An archaeologist is the best husband any woman can have," she said. "The older she gets, the more interested he is in her."
—*Honolulu Star-Bulletin*, 23 November 1987

2. After deciding to sell his home in Upland, California, novelist Whitney Stine pounded a "For Sale" sign into his front yard. But he deliberately waited to do so until 2:22 P.M. one Thursday. The house sold three days later for his asking price—\$238,000. And Mr. Stine credits the quick sale to the advice of his astrologer, John Bradford, whom he has consulted for 12 years in the sale of five houses.

"He always tells me the exact time to put out the sign according to the phases of the moon, and the houses have always sold within a few months," Mr. Stine says.

—"Thinking of Buying or Selling a House? Ask Your Astrologer," *Wall Street Journal*, 12 October 1986

²⁶Roy R. Bassler, ed., *The Collected Works of Abraham Lincoln*, vol. 2 (New Brunswick, N.J.: Rutgers University Press, 1953), 103.

3. If you hold that nothing is self-evident, I will not argue with you for it is clear that you are a quibbler and are not to be convinced.

—DUNS SCOTUS, *Oxford Commentary on the Sentences of Peter Lombard*

4. . . . the greatest thing by far is to be a master of metaphor. It is the one thing that cannot be learned from others; and it is also a sign of genius, since a good metaphor implies an intuitive perception of the similarity in dissimilars.

—ARISTOTLE, *Poetics*, 22, 1459^a 5–7

- * 5. Analysis . . . is the operation which reduces the object to elements already known, that is, to elements common both to it and other objects. To analyze, therefore, is to express a thing as a function of something other than itself.

—HENRI BERGSON, *An Introduction to Metaphysics*

6. Order is indispensable to justice because justice can be achieved only by means of a social and legal order.

—ERNEST VAN DEN HAAG, *Punishing Criminals*

7. The classic trap for any revolutionary is always "What's your alternative?" But even if you *could* provide the interrogator with a blueprint, this does not mean he would use it; in most cases he is not sincere in wanting to know.

—SHULAMITH FIRESTONE, *The Dialectic of Sex: The Case for Feminist Revolution*

8. William Butler, chief counsel for the Environmental Defense Fund, which led the attack on DDT between 1966 and 1972, repeats the argument today: "You can't prove a negative . . . You can't say something doesn't exist because there's always a chance that it does exist but nobody has seen it. Therefore you can't say something doesn't cause cancer because there's always the chance that it does cause cancer but it hasn't showed up yet."

—WILLIAM TUCKER, "Of Mice and Men," *Harper's Magazine*

9. Though volumes have been written both for and against deconstruction, not all critics agree that it deserves so much attention. If we suppose its basic premise that texts are only self-referential is true, then deconstruction self-destructs . . . After all, the assertion that "all texts are only self-referential and refer to nothing outside the text," if true, could only refer to itself; it would apply to no external texts whatsoever.

—ADAM DEVORE, "Deconstruction Self-Destructs," *Michigan Review*, 23 October 1991, p. 6