

## Chapter 3

# Fallacies

... arguments, like men, are often pretenders.

— PLATO

It would be a very good thing if every trick could receive some short and obviously appropriate name, so that when anyone used this or that particular trick, he could at once be reproved for it.

— ARTHUR SCHOPENHAUER

### ◆ 3.1 What Is a Fallacy?

An argument, whatever its subject or sphere, is generally constructed to prove that its conclusion is true. But any argument can fail to fulfill this purpose in either of two ways. One way it can fail is by assuming a false proposition as one of its premisses. We saw, in Chapter 1, that every argument involves the claim that the truth of its conclusion follows from, or is implied by, the truth of its premisses. So if its premisses are not true, the argument fails to establish the truth of its conclusion, even if the reasoning based on those premisses is correct. To test the truth or falsehood of premisses, however, is not the special responsibility of the logician; it is rather the task of inquiry in general, since premisses may deal with any subject matter whatever.

The other way that an argument can fail to establish the truth of its conclusion is for its premisses not to imply its conclusion. Here we do have the special province of the logician, whose chief concern is the logical relations between premisses and conclusion. An argument whose premisses do not support its conclusion is one whose conclusion *could be false even if* all its premisses were true. In cases of this kind the reasoning is bad, and the argument is said to be *fallacious*. A fallacy is an error in reasoning.

As logicians use the word “fallacy” however, it designates not any mistaken inference or false belief, but *typical* errors, that is, mistakes that arise commonly in ordinary discourse, and that devastate the arguments in

31 which they appear. Each fallacy, as we shall use that term, is a type of incorrect argument. An argument in which a mistake of a given type appears is said to *commit* that fallacy. Since each fallacy is a type, we can say of two or more different arguments that they contain or commit the same fallacy; that is, they exhibit the same kind of mistake in reasoning. An argument that contains or commits a fallacy of a given type may also be said to *be* a fallacy, that is, to be an example or instance of that typical mistake.

There are many ways in which reasoning can go astray; that is, there are many *kinds* of mistakes in argument. It is customary to reserve the term “fallacy” for arguments that, although incorrect, are psychologically persuasive. Some arguments are so obviously incorrect as to deceive and persuade no one. But fallacies are dangerous because most of us are, at one time or another, fooled by some of them. We therefore define a **fallacy** as a **type of argument that may seem to be correct, but that proves, on examination, not to be so**. It is profitable to study these mistaken arguments because the traps they set can best be avoided when they are well understood. To be forewarned is to be forearmed.

Whether a given argument does in fact commit a fallacy may depend on the interpretation given to the terms used by its author. When a passage is taken out of context, it may be difficult to determine what meanings the author intended for the terms used. Sometimes the accusation of fallacy is unjustly leveled at a passage that was intended by its author to make a point missed by the critic—perhaps even to make a joke. We should bear such unavoidable complications in mind as we apply the analysis of fallacious arguments to actual discourse. Our logical standards should be high, but our application of them to arguments in ordinary life should also be generous and must be fair.

How many different kinds of mistakes in arguments—different fallacies—may be distinguished? Aristotle, the first systematic logician, identified thirteen types;<sup>1</sup> recently a listing of more than one hundred has been developed!<sup>2</sup> There is no precisely determinable number of fallacies, since much depends, in counting them, on the system of classification used. We

<sup>1</sup>Aristotle, *Sophistical Refutations*, in W. D. Ross, ed., *The Works of Aristotle*, vol. 1 (New York: Oxford University Press, 1928).

<sup>2</sup>The most voluminous list of fallacies we know appears in David H. Fischer's *Historians' Fallacies* (New York: Harper & Row, 1979); he discussed and named even more than the 112 different fallacies noted in his index. In *Fallacy: The Counterfeit of Argument* (Englewood Cliffs, NJ: Prentice-Hall, 1959), W. W. Fernside and W. B. Holther named and illustrated 51 fallacies. A historical and theoretical treatment of the topic was given by C. L. Hamblin in *Fallacies* (London: Methuen, 1970), and another excellent treatment of the topic is to be found in *Argument: The Logic of the Fallacies* (Scarborough, Ontario: McGraw-Hill Ryerson, 1982) by John Woods and Douglas Walton. Howard Kahane presented insightful criticism of the usual methods of classifying fallacies in “The Nature and Classification of Fallacies,” in *Informal Logic*, edited by J. A. Blair and R. J. Johnson (Inverness, Calif: Edgepress, 1980). All these books are warmly recommended to readers who wish to go more deeply into the subject of fallacies.

distinguish seventeen fallacies here—the most common and most deceptive categories of mistakes in reasoning—divided into two large groups, called “fallacies of relevance” and “fallacies of ambiguity.”<sup>3</sup> Mastering these will enable the student to detect the most troublesome errors in reasoning, and will promote the sensitivity needed to detect errors of related kinds, as well.

### ◆ 3.2 Fallacies of Relevance

When an argument relies on premisses that are not relevant to its conclusion, and that therefore cannot possibly establish its truth, the fallacy committed is one of relevance. “Irrelevance” may perhaps better describe the fallacy committed if the premisses are often *psychologically* relevant to the conclusion, and this relevance explains their seeming correctness and persuasiveness. How part by the different uses of language distinguished in Chapter 2; the mechanics of these confusions will become clearer in the analyses, below, of the twelve different fallacies in this group.

Latin names have traditionally been given to many fallacies; some of these—like *ad hominem*—have become part of the English language. We will use here both the Latin and the English names.

#### 1. The Argument from Ignorance: Argument Ad Ignorantiam

The argument from ignorance is the mistake that is committed when it is argued that a proposition is true simply on the basis that it has not been proved false, or that it is false because it has not been proved true. We realize, on reflection, that many false propositions have not yet been proved false, and many true propositions have not yet been proved true—and thus our ignorance of how to prove or disprove a proposition does not establish either truth or falsehood. This fallacious appeal to ignorance appears most commonly in misunderstandings of developing science, where propositions whose truth cannot yet be established are mistakenly held false for that reason, and also in the world of pseudoscience, where propositions about psychic phenomena and the like are fallaciously held to be true because their falsehood has not been conclusively established.

<sup>3</sup>Other fallacies, arising in special contexts, are discussed elsewhere in this book. Fallacies common in the misuse of syllogisms are explained in Sections 6.4 and 7.7; fallacies common in symbolic logic are explained in Section 8.4; some fallacies in causal reasoning are explained in Chapter 12; “the gambler’s fallacy” committed in reasoning about probability is explained in Section 14.3. The kinds of mistakes made in reasoning are many and various; those discussed in this chapter are fallacies encountered in everyday, informal discourse.

Famous in the history of science is the argument *ad ignorantiam* given in criticism of Galileo, when he showed leading astronomers of his time the mountains and valleys on the moon that could be seen through his telescope. Some scholars of that age, absolutely convinced that the moon was a perfect sphere, as theology and Aristotelian science had long taught, argued against Galileo that, although we see what appear to be mountains and valleys, the moon is in fact a perfect sphere, because all its apparent irregularities are filled in by an invisible crystalline substance. And this hypothesis, which saves the perfection of the heavenly bodies, Galileo could not prove false! Legend has it that Galileo, to expose the argument *ad ignorantiam*, offered another of the same kind as a caricature. Unable to prove the nonexistence of the transparent crystal supposedly filling the valleys, he put forward the equally probable hypothesis that there were, rearing up from the invisible crystalline envelope on the moon, even greater mountain peaks—but made of crystal and thus invisible! And this hypothesis, he pointed out, his critics could not prove false.

Those who strongly oppose some great change are often tempted to argue against the change on the ground that it has not yet been proved workable or safe. Such proof is often impossible to provide in advance, and the appeal of the objection is commonly to ignorance mixed with fear. Such an appeal often takes the form of rhetorical questions that suggest, but do not flatly assert, that the proposed changes are full of unknown peril. Policy changes may be supported, as well as opposed, by an appeal to ignorance. When the federal government issued a waiver, in 1992, allowing Wisconsin to reduce the additional benefits it had been giving to welfare mothers for having more than one child, the governor of Wisconsin was asked if there was any evidence of unwed mothers having additional children simply for the added income. His reply, *ad ignorantiam*, was this: “No, there isn’t. There really isn’t, but there is no evidence to the contrary, either.”<sup>4</sup>

In some circumstances, of course, the fact that certain evidence or results have not been got, after they have been actively sought in ways calculated to reveal them, may have substantial argumentative force. New drugs being tested for safety, for example, are commonly given to mice or other rodents for prolonged periods; the absence of any toxic effect on the rodents is taken to be evidence (although not conclusive evidence) that the drug is probably not toxic to humans. Consumer protection often relies on evidence of this kind. In circumstances like these, we rely not on ignorance but on our knowledge, or conviction, that if the result we are concerned about were likely to arise, it would have arisen in some of the test cases. This use of the inability to prove something true supposes that investigators are highly skilled, and that they very probably would have uncovered the evidence

<sup>4</sup>“Wisconsin to Cut Welfare,” *Ann Arbor News*, 11 April 1992, 1.

sought had it been possible to do so. Tragic mistakes are sometimes made in this sphere, but if the standard is set too high—if what is required is a conclusive proof of harmlessness that cannot ever be given—consumers will be denied what may prove to be valuable, even lifesaving, medical treatments.

Similarly, when a security investigation yields no evidence of improper conduct by the persons investigated, it would be wrong to conclude that the investigation has left us ignorant. A thorough investigation will properly result in their being “cleared.” Not to draw a conclusion, in some cases, is as much a breach of correct reasoning as it would be to draw a mistaken conclusion.

There is one special context in which the appeal to ignorance is common and appropriate, namely, in a criminal court, where an accused person is presumed innocent until proved guilty. We adopt this principle because we recognize that the error of convicting the innocent is far more grave than that of acquitting the guilty—and thus the defense in a criminal case may legitimately claim that if the prosecution has not proved guilt beyond a reasonable doubt, the only verdict possible is not guilty. A recent opinion of the United States Supreme Court strongly reaffirmed this standard of proof in these words:

The reasonable-doubt standard . . . is a prime instrument for reducing the risk of convictions resting on factual error. The standard provides concrete substance for the presumption of innocence—that bedrock axiomatic and elementary principle whose enforcement lies at the foundation of the administration of our criminal law.<sup>5</sup>

But *this* appeal to ignorance succeeds only where innocence must be assumed in the absence of proof to the contrary; in other contexts, such an appeal is indeed an argument *ad ignorantiam*.

## 2. The Appeal to Inappropriate Authority: Argument Ad Verecundiam

In attempting to make up one's mind on a difficult or complicated question, it is entirely reasonable to be guided by the judgment of an acknowledged expert who has studied the matter thoroughly. When we argue that a given conclusion is correct on the ground that an expert authority has come to that judgment, we commit no fallacy. Indeed, such recourse to authority is necessary for most of us on very many matters. Of course, an expert's judgment is not conclusive proof; experts disagree, and even in agreement

<sup>5</sup>Mr. Justice Brennan, writing for the Court, *In re Winship*, 397 U.S. 358, 1970.

they may err; but expert opinion is surely one reasonable way to support a conclusion.

The fallacy *ad verecundiam* arises when the appeal is made to parties having no legitimate claim to authority in the matter at hand. Thus, in an argument about morality, an appeal to the opinions of Darwin, a towering authority in biology, would be fallacious, as would be an appeal to the opinions of a great artist, like Picasso, to settle an economic dispute. But care must be taken in determining whose authority is reasonably to be relied on, and whose rejected. While Picasso was not an economist, his judgment might plausibly be given some weight in a dispute pertaining to the economic value of an artistic masterpiece; and if the role of biology in moral questions were in dispute, Darwin might indeed be an appropriate authority.

The most blatant examples of misplaced appeals to authority appear in advertising “testimonials.” We are urged to drive an automobile of a given make because a famous golfer or tennis player affirms its superiority; we are urged to drink a beverage of a certain brand because some movie star or football coach expresses enthusiasm about it. Wherever the truth of some proposition is asserted on the basis of the authority of one who has no special competence in that sphere, the appeal to misplaced authority is the fallacy committed.

This appears to be a simpleminded mistake that is easy to avoid, but there are circumstances in which the fallacious appeal is tempting, and therefore intellectually dangerous. Here are two examples: In the sphere of international relations, in which weapons and war unhappily play a major role, one opinion or another is commonly supported by appealing to those whose special competence lies in the technical design or construction of weapons. Physicists like Robert Oppenheimer or Edward Teller, for example, may indeed have had the knowledge to give authoritative judgments regarding how certain weapons can (or cannot) function; but their knowledge in this sphere does not give them special wisdom in determining large political goals. An appeal to the strong judgment of a distinguished physicist on the wisdom of ratifying some international treaty would be an argument *ad verecundiam*. Similarly, we admire the depth and insight of great fiction—say, in the novels of Alexander Solzhenitsyn or Saul Bellow—but resorting to their judgment in determining the real culprit in some political dispute would be an appeal *ad verecundiam*.<sup>6</sup>

<sup>6</sup>The name was originated by John Locke, whose criticism was directed chiefly at those who think that citing learned authorities is enough to win any argument, who think it “a breach of modesty for others to derogate any way from it, and question authority,” and who “style it impudence in anyone who shall stand out against them.” That argument Locke named *ad verecundiam*—an appeal to the modesty of those who might be so bold as to oppose authority (J. Locke, *An Essay Concerning Human Understanding* (1690).

conclusion that has been deliberately buried within it. Or the question may be posed and the fallacious assumption drawn, while the answer to the question remains unstated, only suggested or presumed.

A complex question may be combined with an appeal to ignorance. An example of this bundling of fallacies appeared in a leading scientific journal, when research into techniques for cutting and recombining DNA was denounced with an interrogative appeal to ignorance that presupposed the assumption by which the question had been prefaced:

If Dr. Frankenstein must go on producing his biological monsters . . . [h]ow can we be sure what would happen once the little beasts escaped from the laboratory?<sup>8</sup>

The effectiveness of fallacious attacks like these is due in part to the need to identify and sort out the several hidden assumptions before rational reply can begin.

#### 4. Argument Ad Hominem

The phrase *ad hominem* translates into "against the person." It names a fallacious attack in which the thrust is directed, not at a conclusion, but at the person who asserts or defends it. This fallacy has two major forms, because there are two major ways in which the attack can be personalized.

##### A. ARGUMENT AD HOMINEM

Participants in strenuous argument sometimes disparage the character of their opponents, deny their intelligence or reasonableness, question their integrity, and so on. But the character of an individual is logically irrelevant to the truth or falsehood of what that person says, or to the correctness or incorrectness of that person's reasoning. To contend that proposals are bad, or assertions false, because they are proposed or asserted by "radicals" or "extremists" is a typical example of the fallacy *ad hominem*, abusive.

Abusive premisses are irrelevant; they may nevertheless persuade by the psychological process of transference. Where an attitude of disapproval toward a person can be evoked, the field of emotional disapproval may be extended so as to include disagreement with the assertions that person makes.

A bitter controversy among several contemporary American philosophers illustrates this fallacious attack. One of the disputants wrote:

It is one thing to be attacked by an honorable opponent in an honorable way. This happens all the time in philosophy. But in my view Sommers's intellectual methods are dishonest. She ignores the most elementary protocols of philosophical disputation.<sup>9</sup>

<sup>8</sup>Erwin Chargaff, in a letter to *Science* 192 (1976), 938.

<sup>9</sup>Sandra Lee Bartky, *Proceedings of the American Philosophical Association* 65 (June 1992), 56.

The target of this accusation replied:

One dishonest and unworthy tactic used by several of my detractors is to attribute to me complaints I never made and then to dismiss the "complaints" as "irresponsible" and evidence of my reckless unfairness.<sup>10</sup>

The merits of the positions of the conflicting parties are not illuminated by argument of this character.

There are many variations in the patterns of *ad hominem* abuse. The opponent may be abused for being of a certain persuasion: an "isolationist" or an "interventionist," a "right-winger" or a "left-winger," or the like. Sometimes a conclusion or its proponent is condemned simply because the view defended is defended also by persons widely believed to be of bad character. Socrates was a victim of such "guilt by association," convicted of impiety at his trial partly because of his close association with persons widely known to have been disloyal to Athens and rapacious in conduct. When the argument *ad hominem*, abusive, takes the form of attacking the source or the genesis of the opposing position—which is not relevant to its truth, of course—it may be called the "genetic fallacy."

In legal proceedings, when sworn testimony is believed to be perjury, it is sometimes appropriate to exhibit the unreliability of the person giving that testimony, to "impeach the witness." If dishonesty in other matters can be shown, and credibility is thus undermined, this impeachment may not be fallacious. Of course, it is not enough simply to assert that the witness lied; dishonesty must be shown in the pattern of that witness's past statements, or through inconsistencies in sworn testimony that the witness has given.<sup>11</sup> Even in this special context, the attack on character cannot establish the *falsehood* of the testimony given; that inference would be fallacious.

##### B. ARGUMENT AD HOMINEM, CIRCUMSTANTIAL

In the circumstantial form of the *ad hominem* fallacy, it is the irrelevance of the connection between the belief held and the circumstances of those holding it that gives rise to the mistake. The *circumstances* of one who makes (or rejects) some claim have no bearing on the truth of that claim.

In one of the varieties of this form, it is argued fallaciously that *consistency* obliges an opponent to accept (or reject) some conclusion merely because of that person's employment, or nationality, or political affiliation, or other circumstances. It may be unfairly suggested that a clergyman must accept a given proposition because its denial would be incompatible with the Scriptures. Or it may be claimed that political candidates must support a given policy because that policy is explicitly propounded in the platform of

<sup>10</sup>Christina Sommers, *Proceedings of the American Philosophical Association*, 65 (June 1992), 79.

<sup>11</sup>A more extended discussion of *ad hominem* arguments in a legal setting will be found in Chapter 15, "Logic and the Law," Section 15.2.

their party. Such argument is irrelevant to the truth of the proposition in question; it simply urges that some persons' circumstances require its acceptance. Hunters, accused of the barbaric slaughter of unoffending animals, sometimes reply by noting that their critics eat the flesh of harmless cattle. Such a reply is plainly *ad hominem*; the fact that the critic eats meat does not even begin to prove that it is right for the hunter to kill animals for amusement. The Latin term *tu quoque* (meaning "you're another" or, more loosely, "look who's talking") is sometimes used to name this variety of circumstantial *ad hominem* argument.

While the circumstances of the opponent may not be the issue in a serious argument, calling attention to them may be psychologically effective in winning assent, or in persuading others. But however persuasive it may prove, argument of this kind is essentially fallacious.

Circumstantial *ad hominem* arguments are sometimes used in another way, to suggest that the opponents' conclusion should be rejected because their judgment is warped, dictated by their special situation rather than by reasoning or evidence. But an argument that is favorable to some minority deserves discussion on its merits: it is fallacious to attack it simply on the ground that it is presented by a member of that minority and is therefore self-serving. The arguments in favor of a protective tariff (for example) may be bad, but they are not bad because they are presented by a manufacturer who benefits from such tariffs.

One argument of this kind, called "poisoning the well," is particularly perverse. The incident that gave rise to the name illustrates the argument forcefully. The British novelist and clergyman Charles Kingsley, attacking the famous Catholic intellectual John Henry Cardinal Newman, argued thus: Cardinal Newman's claims were not to be trusted because, as a Roman Catholic priest, (Kingsley alleged) Newman's first loyalty was not to the truth. Newman countered that this *ad hominem* attack made it impossible for him and indeed for all Catholics to advance their arguments, since anything that they might say to defend themselves would then be undermined by others' alleging that, after all, truth was not their first concern. Kingsley, said Cardinal Newman, had poisoned the well of discourse.

Between the abusive and the circumstantial varieties of argument *ad hominem* there is a clear connection: the circumstantial may be regarded as a special case of the abusive. When a circumstantial *ad hominem* argument explicitly or implicitly charges the opponents with *inconsistency* (among their beliefs, or between what they profess and what they practice), that is clearly one kind of abuse. When a circumstantial *ad hominem* argument charges the opponents with a lack of trustworthiness by virtue of group membership or conviction, that is an accusation of *prejudice* in defense of self-interest and is clearly also an abuse. Whether of one form or the other, *ad hominem* arguments are directed fallaciously at the person of the adversary.

## 5 and 6. Accident and Converse Accident

The fallacies of accident and converse accident arise as a result of the careless, or deliberately deceptive, use of generalizations. In political and moral argument, and in most affairs of importance in community life, we rely on statements of how things generally are, how people generally behave, and the like. But even when general claims are entirely plausible, we must be careful not to apply them to particular cases too rigidly. Circumstances alter cases; a generalization that is true by and large may not apply in a given case, for good reasons having to do with the special (or "accidental") circumstances of that case. When we apply a generalization to individual cases that it does not properly govern, we commit the fallacy of *accident*. When we do the reverse and, carelessly or by design, apply a principle that is true of a particular case to the great run of cases, we commit the fallacy of *converse accident*.

Experience teaches us that many generalizations, although widely applicable and useful, have exceptions against which we must be on guard. In the law, principles that are sound in general sometimes have very specifically identified exceptions. For example, the rule that hearsay testimony may not be accepted as evidence in court is not applicable when the party whose oral communications are reported is dead, or when the party reporting the hearsay does so in conflict with his own best interest. Almost every good rule has appropriate exceptions; we argue fallaciously when we reason on the supposition that some rules applies with universal force.

In a dialogue with the young Euthydemus, who planned to become a statesman, Socrates drew from Euthydemus a commitment to many of the conventionally accepted moral truths: that it is wrong to deceive, unjust to steal, and so on. Then Socrates (as recounted by Xenophon in his report of the dialogue) presented a series of hypothetical cases in which Euthydemus reluctantly agreed that it would appear right to deceive (to rescue our compatriots) and just to steal (to save a friend's life), and so on. To all those who may try to decide specific and complicated issues by appealing mechanically to general rules, the fallacy of accident is a genuine and serious threat. The logician H. W. B. Joseph observed that "there is no fallacy more insidious than that of treating a statement which in many connections is not misleading as if it were true always and without qualification."

Accident is the fallacy we commit when we move carelessly or too quickly from a generalization; converse accident is the fallacy we commit when we move carelessly or too quickly to a generalization. We are all familiar with those who draw conclusions about all persons in a given category because of what may be true about one or a few persons in that category; we know, and need to remember, that although a certain drug or food may be harmless in some circumstance it is not therefore harmless in all circumstances. For example: Eating deep-fried foods has a generally adverse impact on one's

cholesterol level, but that bad outcome may not arise in some persons. The owner of a "fish and chips" shop in England recently defended the healthfulness of his deep-fried cookery with this argument:

Take my son, Martyn. He's been eating fish and chips his whole life, and he just had a cholesterol test, and his level is below the national average. What better proof could there be than a frier's son?<sup>12</sup>

Converse accident is a kind of fallacious reasoning whose error is plain to everyone when exposed; yet it is a convenient deception, on which many persons are tempted to rely when they argue inattentively or with great passion.

## 7. False Cause

The nature of the connection between cause and effect—and how we can determine whether such a connection is present or absent—are central problems of inductive logic and scientific method. These problems are discussed in detail in Part Three of this book. It is easy to see, however, that any reasoning that relies on treating as the cause of a thing what is not really its cause must be seriously mistaken. In Latin this mistake has been called the fallacy of *non causa pro causa*; we call it more simply "false cause."

The most common variety of false cause is the error of concluding that an event is caused by another simply because it follows the other. We know, of course, that mere temporal succession does not establish a causal connection, but we can be tricked. If very peculiar weather conditions occur just after the underground testing of a nuclear device, some argue, fallaciously, that the tests were the cause of those conditions. If an aggressive move in foreign policy is followed by an international event for which we had been hoping, some may mistakenly conclude that the aggressive policy was the cause of that event. In primitive beliefs, the error is sometimes blatant; we will all reject as absurd the claim that beating drums is the cause of the sun's reappearance after an eclipse, despite the evidence offered that every time drums have been beaten during an eclipse, the sun has reappeared! This variety of false cause is widely called the fallacy of *post hoc ergo propter hoc* ("after the thing, therefore because of the thing")—and while the mistake is easy to detect in many circumstances, there are times when even the best of scientists, or statesmen, may be misled.

## 8. Begging the Question: *Petitio Principii*

To beg the question is to assume the truth of what one seeks to prove, in the effort to prove it. That would seem to be a silly mistake, evident to all—but

<sup>12</sup>John Bedder, reported in "Fried and Salty, Yessir, Matey, but Truly English," *The New York Times*, 9 March 1993.

how silly or obvious the mistake is depends largely on the way in which the premisses of the argument are formulated. Their wording often obscures the fact that buried within one of the premisses assumed lies the conclusion itself. This fallacy is illustrated by the following argument, reported by the logician Richard Whately: "To allow every man unbounded freedom of speech must always be, on the whole, advantageous to the state; for it is highly conducive to the interests of the community that each individual should enjoy a liberty, perfectly unlimited, of expressing his sentiments."<sup>13</sup>

Sometimes we fall into this mistake when, in the effort to establish our conclusion, we cast about in search of premisses that will do the trick. Of course, the conclusion itself, disguised in other language, certainly will do the trick! Among all the fallacies of relevance, therefore, it will be seen that this is the one case in which the error does not lie in the fact that the premisses are not relevant or that they cannot establish the conclusion. They are not irrelevant, they do prove the conclusion—but they do so trivially. A *petitio principii* is always valid—but always worthless, too.

Those who fall into this error often do not realize that they have assumed what they set out to prove. The fact of that assumption can be obscured by confusing and therefore unrecognized synonyms, or by a chain of intervening argument. Every *petitio* is a *circular argument*, but the circle that has been constructed may—if it is large or fuzzy—go quite undetected.

Powerful minds are sometimes snared by this fallacy, as is illustrated by a highly controversial issue in the history of philosophy. Logicians have long sought to establish the reliability of inductive procedures by establishing the truth of what is called the "principle of induction." This is the principle that the laws of nature will operate tomorrow as they operate today, that in basic ways nature is essentially uniform, and that therefore we may rely on past experience to guide our conduct in the future. "That the future will be essentially like the past" is the claim at issue, but this claim, never doubted in ordinary life, turns out to be very difficult to prove. Some thinkers, however, have claimed that they could prove it by showing that, when we have in the past relied on the inductive principle, we have always found that this method has helped us to achieve our objectives. They ask: Why conclude that the future will be like the past? Because it always has been like the past.

But as David Hume pointed out, this common argument is a *petitio*: It begs the question. For the point at issue is whether nature will continue to behave regularly; that it has done so in the past cannot serve as proof that it will do so in the future—unless one assumes the very principle that is here in question: that the future will be like the past! And so Hume, granting that in the past the future has been like the past, asked the telling question with which philosophers still tussle: How can we know that future futures will be

<sup>13</sup>Richard Whately, *Elements of Logic* (London, 1826).

like past futures? They may be so, of course, but we may not *assume* that they will for the sake of *proving* that they will.<sup>14</sup>

### 9. The Appeal to Emotion: Argument Ad Populum

This common fallacy and the two that follow it are so evidently fallacious that they require little explanation here. In each case, the premisses are plainly not relevant to the conclusion and are deliberately chosen as instruments with which to manipulate the beliefs of the listener or reader.

The argument *ad populum*, the appeal to emotion, is the device of every propagandist and every demagogue. It is fallacious because it replaces the laborious task of presenting evidence and rational argument with expressive language and other devices calculated to excite enthusiasm, excitement, anger, or hate. The speeches of Adolph Hitler, which brought his German listeners to a state of patriotic frenzy, may be taken as a classic example. Love of country is an honorable emotion; the use of that love to manipulate one's audience is intellectually disreputable, hence Samuel Johnson's saying (itself manifesting the fallacy of converse accident): "Patriotism is the last refuge of a scoundrel."

Those who rely most heavily on arguments *ad populum* are now to be found in advertising agencies, where the use of that fallacy has been elevated almost to the status of a fine art. The products advertised are associated, explicitly or slyly, with things that we yearn for or that excite us favorably. Breakfast cereal is associated with trim youthfulness, athletic prowess, and vibrant good health; whiskey is associated with luxury and achievement, and beer with high adventure; the automobile is associated with romance, riches and sex. The men depicted using the advertised product are generally handsome and distinguished, the women sophisticated and charming—or hardly dressed at all. So clever and persistent are the ballyhoo artists of our time that we are all influenced in some degree in spite of our resolution to resist. Almost every imaginable device may be used to command our attention, even to penetrate our subconscious thoughts. We are manipulated by relentless appeals to emotion of every kind.

The mere association of the product and the emotion is, by itself, no argument, but an argument *ad populum* commonly lies not far beneath the surface. When advertisers make claims about their products designed to win our emotional approval, and when it is suggested that we ought to make some purchase because the item in question is "sexy" or "best-selling" or is associated with wealth or power, the implicit claim that this conclusion follows from such premisses is plainly fallacious.

<sup>14</sup>See David Home, "Sceptical Doubts Concerning the Operations of the Understanding," in *An Enquiry Concerning Human Understanding*, sec. 4, ¶74.

Some instances of the argument *ad populum* are brazen. Here are the exact words of a 1992 advertisement on ABC-TV:

Why are so many people attracted to the Pontiac Grand Prix? It could be that so many people are attracted to the Grand Prix because—so many people are attracted to the Grand Prix!

The fallacious appeal to what is popular is certainly not a uniquely American failing. In China, a recent resurgence of irrational devotion to Chairman Mao Zedong has led to the widespread practice of hanging his picture from the rearview mirror of automobiles to ward off accidents. A taxi driver in Beijing explained:

Everybody else is doing it, so I thought it'd be a good idea too. It's high fashion.<sup>15</sup>

The popular acceptance of a policy or practice does not show it to be wise; the fact that a great many people hold a given opinion does not prove it to be true. Bertrand Russell condemned such argument in language that is almost too vigorous:

The fact that an opinion has been widely held is no evidence whatever that it is not utterly absurd; indeed, in view of the silliness of the majority of mankind, a wide-spread belief is more likely to be foolish than sensible.<sup>16</sup>

### 10. The Appeal to Pity: Argument Ad Misericordiam

The appeal to pity may be viewed as a special case of the appeal to emotion, in which the altruism and mercy of the audience are the special emotions appealed to. The attorney for a plaintiff, seeking compensatory damages for an injury, often arranges to have the client's disability revealed in the courtroom in some heartrending way. And in criminal trials, although jury sympathy has no bearing whatever on the guilt or innocence of the accused, effective defense attorneys often appeal to the pity of the jury to the extent that the circumstances allow. Sometimes that appeal is made obliquely. At his trial in Athens, Socrates referred with disdain to other defendants who had appeared before their juries accompanied by their children and families, seeking to be acquitted by evoking pity. Socrates continued:

... I, who am probably in danger of my life, will do none of these things. The contrast may occur to his [each juror's] mind, and he may be set against me, and vote in anger because he is displeased at me on this account. Now if there be such a person among you—mind, I do not say that there is—to him I may fairly reply: My friend, I am a man, and like other men, a creature of flesh and blood, and not "of wood or stone" as Homer says; and I have

<sup>15</sup>Nicholas D. Kristoff, "China's Newest God," *New York Times*, 2 June 1992.

<sup>16</sup>Bertrand Russell, *Marriage and Morals* (New York: Liveright, 1929), 58.

a family, yes, and sons, O Athenians, three in number, one almost a man, and two others who are still young; and yet I will not bring any of them here to petition you for acquittal.<sup>17</sup>

There are many ways to pull heart strings, and virtually all are tried. The argument *ad misericordiam* is ridiculed in the story of the trial of a youth accused of the murder of his mother and father with an ax. Confronted with overwhelming proof of his guilt, he pleaded for leniency on the grounds that he was an orphan.

## 11. The Appeal to Force: Argument Ad Baculum

The appeal to force to cause the acceptance of some conclusion seems at first to be so obvious a fallacy as to need no discussion at all. The use or threat of "strong-arm methods" to coerce opponents would seem to be a last resort—a useful expedient when evidence or rational methods fail. "Might makes right" is hardly a subtle principle.

But, in fact, there are occasions when appeals *ad baculum* (literally, "to the stick") are used with considerable subtlety. The arguer may not threaten directly and yet may convey a veiled threat, or a possible threat in a form calculated to win the assent (or at least the support) of those imperiled. When the attorney general in the Reagan administration was under strong attack in the press for misconduct, the White House chief of staff, Howard Baker, opened one meeting of his staff by saying:

The President continues to have confidence in the Attorney General and I have confidence in the Attorney General and you ought to have confidence in the Attorney General, because we work for the President and because that's the way things are. And if anyone has a different view of that, or any different motive, ambition, or intention, he can tell me about it because we're going to have to discuss your status.<sup>18</sup>

One may say that nobody is fooled by argument of this sort; the threatened party may *behave* appropriately but need not, in the end, accept the *truth* of the conclusion insisted upon. To this it was answered, by representatives of twentieth-century Italian fascism, that real persuasion can come through many different instruments, of which reason is one and the blackjack is another. But once the opponent is truly persuaded, they held, the instrument of persuasion may be forgotten. That fascist view appears to guide many of the governments of the globe to this day; but the argument *ad baculum*—reliance on the club, or on the threat of force in any form—is by reason unacceptable. The appeal to force is the abandonment of reason.

<sup>17</sup>Plato, *Apology*, no. 34; Jowett translation, vol. 1, p. 417.

<sup>18</sup>White House Orders Silence on Meese," *Washington Post*, 29 April 1988.

## 12. Irrelevant Conclusion: Ignoratio Elenchi

The fallacy of *ignoratio elenchi* is committed when an argument purporting to establish a particular conclusion is instead directed to proving a different conclusion. The premisses "miss the point"; the reasoning may seem plausible in itself, and yet the argument misfires as a defense of the conclusion in dispute. Arguments in the sphere of social legislation frequently commit this fallacy; a program of a particular kind, designed to achieve some larger objective that is widely shared, is supported by premisses that do give reason to share the larger end, but that tell us nothing relevant about the specific program under consideration. Sometimes this approach is deliberate; sometimes it is the result of a passionate concern for the larger objective, which blinds some advocates of the more specific proposal to the irrelevance of their premisses.

For example, particular tax reforms are sometimes defended by an emphasis on the need to reduce budget deficits—when the real issue is the fairness or yield of the specific tax measure proposed. Or special programs proposed to support the building industry, or the automobile industry, may be defended with premisses that show the need for assistance but do not support the need for the kind or amount of assistance the program at issue would provide. When the issue is the wisdom of developing a new and very expensive weapon system, the premisses will miss the point if they simply underscore the need for a strong national defense. Whether the weapon system proposed is the one we actually need and want is likely to be the real question. Objectives that are stated in very general terms—national security, good housing, or a balanced budget—are easy to endorse; the hard questions are likely to be: will this particular measure promote the end sought, and if so, will it do so better—more efficiently or more effectively—than the available alternatives? Bypassing these questions, by obscuring the issue with attractive generalizations about some larger or different end, commits the *ignoratio elenchi*.

How do such arguments ever fool anyone? Often they succeed by distracting attention. By urging with enthusiasm the need for the objective defended by the premisses, the advocate often succeeds in transferring that enthusiasm, in the minds of the audience, to the specific means fallaciously supported. The *ignoratio elenchi* may also prove effective when it is framed in highly emotional language that conceals the misfire with an *ad populum* appeal. But emotion is not the essence of this fallacy; even if the language used be cool and neutral, it is an *ignoratio elenchi* when its real thrust is a conclusion different from the one at issue in the argument.

It may be said that every fallacy of relevance (except the begging of the question) is, in a sense, an *ignoratio elenchi*. But as we use this term, it is the fallacy in which the argument misses the point without necessarily making