Fallacies of Presumption

**Distorting the Facts** Facts can be distorted either intentionally (to deceive or mislead) or unintentionally, and in either case usually (but not invariably) to the benefit of whoever is doing the distortion. Consider this not entirely hypothetical case. A pharmaceutical company spends millions of dollars to develop a new drug that will help pregnant women avoid spontaneous abortion. The company reports its findings, but it does not also report that it has learned from its researchers of a serious downside for this drug in many cases, resulting in deformed limbs in the neonate. Had the company informed the public of this fact, the drug would not have been certified for use.

Here is another case. Half a century ago the surgeon general reported that smoking cigarettes increased the likelihood that smokers would eventually suffer from lung cancer. The cigarette manufacturers vigorously protested that the surgeon general relied on inconclusive research and was badly misleading the public about the health risks of smoking. It later turned out that the tobacco companies knew that smoking increased the risk of lung cancer—a fact established by the company’s own laboratories but concealed from the public. Today, thanks to public access to all the facts, it is commonplace knowledge that inhaled smoke—including secondhand smoke—is a risk factor for many illnesses.

**Post Hoc, Ergo Propter Hoc** One of the most tempting errors in reasoning is to ground a claim about causation on an observed temporal sequence; that is, to argue “after this, therefore because of this” (which is what the phrase post hoc, ergo propter hoc means in Latin). In 1964, when the medical community first announced that smoking tobacco caused lung cancer, advocates for the tobacco industry replied that doctors were guilty of this fallacy.

These industry advocates argued that medical researchers had merely noticed that in some people, lung cancer developed after considerable smoking, indeed, years after; but (they insisted) this correlation was not at all the same as a causal relation between smoking and lung cancer. True enough. The claim that A causes B is not the same as the claim that B comes after A. After all, it was possible that smokers as a group had some other common trait and that this factor was the true cause of their cancer.

As the long controversy over the causation of lung cancer shows, to avoid the appearance of fallacious post hoc reasoning one needs to find some way to link the observed phenomena...
(the correlation of smoking and the onset of lung cancer). This step requires some further theory and preferably some experimental evidence for the exact sequence or physical mechanism, in full detail, of how ingestion of tobacco smoke is a crucial factor—and is not merely an accidental or happenstance prior event—in the subsequent development of the cancer.

Many Questions The old saw, “When did you stop beating your wife?” illustrates the fallacy of many questions. This question, as one can readily see, is unanswerable unless all three of its implicit presuppositions are true. The questioner presumes that (1) the addressee has or had a wife, (2) he has beaten her, and (3) he has stopped beating her. If any of these presuppositions is false, then the question is pointless; it cannot be answered strictly and simply with a date.

Hasty Generalization From a logical point of view, hasty generalization is the precipitous move from true assertions about one or a few instances to dubious or even false assertions about all. For example, while it may be true, based on your personal experience, that the only native Hungarians you personally know do not speak English very well, that is no basis for asserting that all Hungarians do not speak English very well. Or if the clothes you recently ordered online turn out not to fit very well, it doesn’t follow that all online clothes turn out to be too large or too small. A hasty generalization usually lies behind a stereotype—that is, a person or event treated as typical of a whole class. Thus, in 1914, after the German invasion of Belgium, during which some atrocities were committed by the invaders, the German troops were quickly stereotyped by the Allies as brutal savages who skewered helpless babies on their bayonets.

The Slippery Slope One of the most familiar arguments against any type of government regulation is that if it is allowed, then it will be just the first step down the path that leads to ruinous interference, overregulation, and totalitarian control. Fairly often we encounter this mode of argument in the public debates over handgun control, the censorship of pornography, and physician-assisted suicide. The argument is called the slippery slope argument (or the wedge argument, from the way we use the thin end of a wedge to split solid things apart; it is also called, rather colorfully, “letting the camel’s nose under the tent”). The fallacy here is in implying that the first step necessarily leads to the second, and so on down the slope to disaster, when in fact there is no necessary slide from the first step to the second. (Would handgun registration lead to a police state? Well, it hasn’t in Switzerland.) Sometimes the argument takes the form of claiming that a seemingly innocent or even attractive principle that is being applied in a given case (censorship of pornography, to avoid promoting sexual violence) requires one for the sake of consistency to apply the same principle in other cases, only with absurd and catastrophic results (censorship of everything in print, to avoid hurting anyone’s feelings).

Here’s an extreme example of this fallacy in action:

Automobiles cause more deaths than handguns do. If you oppose handguns on the ground that doing so would save lives of the innocent, you’ll soon find yourself wanting to outlaw the automobile.

Does opposition to handguns have this consequence? Not necessarily. Most people accept without dispute the right of society to regulate the operation of motor vehicles by requiring drivers to have a license, a greater restriction than many states impose on gun ownership. Besides, a gun is a lethal weapon designed to kill, whereas an automobile or truck is a vehicle designed for transportation. Private ownership and use in both cases entail risks of death to the innocent. But there is no inconsistency in society’s refusal to tolerate this risk in the case of guns and its willingness to do so in the case of automobiles.

Closely related to the slippery slope is what lawyers call a parade of horrors, an array of examples of terrible consequences that will or might follow if we travel down a certain path. A good example appears in Justice William Brennan’s opinion for the Supreme Court in Texas v. Johnson (1989), concerned with a Texas law against burning the American flag in political protest. If this law is allowed to stand, Brennan suggests, we may next find laws against burning the presidential seal, state flags, and the Constitution.

False Analogy Argument by analogy, as we point out in Chapter 3 and as many of the selections in this book show, is a familiar and even indispensable mode of argument. But it can be treacherous because it runs the risk of the fallacy of false analogy. Unfortunately, we have no simple or foolproof way of
distinguishing between the useful, legitimate analogies and the others. The key question to ask yourself is this: Do the two things put into analogy differ in any essential and relevant respect, or are they different only in unimportant and irrelevant aspects?

In a famous example from his discussion in support of suicide, philosopher David Hume rhetorically asked: "It would be no crime in me to divert the Nile or Danube from its course, were I able to effect such purposes. Where then is the crime of turning a few ounces of blood from their natural channel?" This is a striking analogy, except that it rests on a false assumption. No one has the right to divert the Nile or the Danube or any other major international watercourse; it would be a catastrophic crime to do so without the full consent of people living in the region, their government, and so forth. Therefore, arguing by analogy, one might well say that no one has the right to take his or her own life, either. Thus, Hume's own analogy can be used to argue against his thesis that suicide is no crime. But let us ignore the way in which his example can be turned against him. The analogy is a terrible one in any case. Isn’t it obvious that the Nile, whatever its exact course, would continue to nourish Egypt and the Sudan, whereas the blood flowing out of someone’s veins will soon leave that person dead? The fact that the blood is the same blood, whether in one’s body or in a pool on the floor (just as the water of the Nile is the same body of water whatever path it follows to the sea) is, of course, irrelevant to the question of whether one has the right to commit suicide.

Let us look at a more complex example. During the 1960s, when the United States was convulsed over the purpose and scope of its military involvement in Southeast Asia, advocates of more vigorous U.S. military participation appealed to the so-called domino effect, supposedly inspired by a passing remark from President Eisenhower in the 1950s. The analogy refers to the way in which a row of standing dominoes will collapse, one after the other, if the first one is pushed. If Vietnam turns Communist, according to this analogy, so too will its neighbors, Laos and Cambodia, followed by Thailand and then Burma, until the whole region is as communist as China to the north. The domino analogy (or metaphor) provided, no doubt, a vivid illustration and effectively portrayed the worry of many anti-Communists. But did it really shed any light on the likely pattern of political and military developments in the region? The history of events there during the 1970s and 1980s did not bear out the domino analogy.

Straw Man It is often tempting to reframe or report your opponent's thesis to make it easier to attack and perhaps refute it. If you do this in the course of an argument, you are creating a straw man, a thing of no substance and easily blown away. The straw man you've constructed is usually a radically conservative or extremely liberal thesis, which few if any would want to defend. That is why it is easier to refute than the view your opponent actually holds. "So you defend the death penalty—and all the horrible things done in its name. No one in his right mind would hold such a view." It's highly unlikely that your friend supports everything that has been done in the name of capital punishment—crucifixion and beheading, for example, or execution of the children of the guilty offender.

Special Pleading We all have our favorites—relatives, friends, and neighbors—and we are all too likely to show that favoritism in unacceptable ways. How about this: "Yes, I know Billy hit Sally first, but he's my son. He's a good boy, and I know he must have had a good reason." Or this: "True, she's late for work again—the third time this week!—but her uncle's my friend, and it will be embarrassing to me if she is fired, so we'll just ignore it." Special pleading inevitably leads to unmerited advantages, as illustrated above.

Begging the Question The argument over whether the death penalty is a deterrent illustrates another fallacy. From the fact that you live in a death-penalty state and were not murdered yesterday, we cannot infer that the death penalty was a deterrent. Yet it is tempting to make this inference, perhaps because—all unawares—we are relying on the fallacy of begging the question. If someone tacitly assumes from the start that the death penalty is an effective deterrent, then the fact that you weren’t murdered yesterday certainly looks like evidence for the truth of that assumption. But it isn’t, so long as there are competing but unexamined alternative explanations, as in this case. (The fallacy is called “begging the question,” petitio principii in Latin, because the conclusion of the argument is hidden among its assumptions—and so the conclusion, not surprisingly, follows from the premises.)

Of course, the fact that you weren’t murdered is consistent with the claim that the death penalty is an effective deterrent, just as someone else’s being murdered is also consistent with that claim (for an effective deterrent need not be a perfect deterrent). In general, from the fact that two propositions are consistent with each other, we cannot infer that either is evidence for the other.
Note: The term “begging the question” is often wrongly used to mean “raises the question,” as in “His action of burning the flag begs the question. What drove him to do such a thing?”

False Dichotomy Sometimes oversimplification takes a more complex form, in which contrary possibilities are wrongly presented as though they were exhaustive and exclusive. “Either we get tough with drug users, or we must surrender and legalize all drugs.” Really? What about doing neither and instead offering education and counseling, detoxification programs, and incentives to “Say no”? A favorite of debaters, either/or reasoning always runs the risk of ignoring a third (or fourth) possibility. Some disjunctions are indeed exhaustive: “Either we get tough with drug users, or we do not.” This proposition, though vague (what does “get tough” really mean?), is a tautology; it cannot be false, and there is no third alternative. But most disjunctions do not express a pair of contradictory alternatives: They offer only a pair of contrary alternatives, and mere contraries do not exhaust the possibilities (recall our discussion of contraries versus contradictions on page 319).

A writer would be guilty of creating a false dichotomy if, for example, in an argument in favor of flogging his entire discussion was built on the relative superiority of whipping over imprisonment, as though there was no alternative punishment worth considering. Of course, there is, notably community service (especially for non-violent, juvenile, or many first offenders).

Oversimplification “Poverty causes crime,” “Taxation is unfair,” “Truth is stranger than fiction”—these are examples of generalizations that exaggerate and therefore oversimplify the truth. Poverty as such can’t be the sole cause of crime because many poor people do not break the law. Some taxes may be unfairly high, others unfairly low—but there is no reason to believe that every tax is unfair to all those who have to pay it. Some true stories do amaze us as much as or more than some fictional stories, but the reverse is true, too. (In the language of the Toulmin method, oversimplification is the result of a failure to use suitable modal qualifiers in formulating one’s claims or grounds or backing.)

Red Herring The fallacy of red herring, less colorfully named irrelevant thesis, occurs when one tries to distract one’s audience by invoking a consideration that is irrelevant to the topic under discussion. (This fallacy probably gets its name from the fact that a rotten herring, or a cured herring, which is reddish, will throw pursuing hounds off the right track.) Consider this case. Some critics, seeking to defend our government’s refusal to sign the Kyoto accord to reduce global warming, argue that signing is supported mainly by left-leaning scientists. This argument supposedly shows that global warming—if there is such a thing—is not a serious, urgent issue. But claiming that the supporters of these accords are left-inclined is a red herring, an irrelevant thesis. By raising doubts about the political views of the advocates of signing, it distracts attention from the scientific question (Is there global warming?) and also from the separate political question (Ought the United States sign these accords?). The refusal of a government to sign these accords does not show there is no such thing as global warming. And even if all of the advocates of signing were left-leaning (they aren’t), this fact (if it were a fact, but it isn’t) would not show that worries about global warming are exaggerated.

Fallacies of Relevance

Tu Quoque The Romans had a word for it: Tu quoque means “you, too.” Consider this: “You’re a fine one, trying to persuade me to give up smoking when you indulge yourself with a pipe and a cigar from time to time. Maybe I should quit, but then so should you. As things stand now, however, it’s hypocritical of you to complain about my smoking when you persist in the same habit.” The fallacy is this: The merit of a person’s argument has nothing to do with the person’s character or behavior. Here, the assertion that smoking is bad for one’s health is not weakened by the fact that a smoker offers the argument.

The Genetic Fallacy A member of the family of fallacies that includes poisoning the well and ad hominem is the genetic fallacy. Here the error takes the form of arguing against some claim by pointing out that its origin (genesis) is tainted or that it was invented by someone deserving our contempt. Thus, one might attack the ideas of the Declaration of Independence by pointing out that its principal author, Thomas Jefferson, was a slaveholder. Assuming that it is not anachronistic and inappropriate to criticize a public figure of two centuries ago for practicing slavery, and conceding that slavery is morally outrageous, it is nonetheless fallacious to attack the ideas or even the sincerity of the Declaration by attempting to impeach the credentials of its author. Jefferson’s moral faults do not by themselves