raised some serious objections, it seems possible to modify the voucher system to deal with them. It's worth a try.

Maybe the second version overdoes it in the other direction, but you see the point. Very seldom will you answer all the objections adequately, and even when you do, new problems may surface tomorrow. "It's worth a try" is the best attitude.

**Fallacies**

*Fallacies* are misleading arguments. Many of them are so tempting, and therefore so common, they even have their own names. This may make them seem like a separate and new topic. Actually, however, to call something a fallacy is usually only another way of saying that it violates one of the rules for good arguments. The fallacy of "false cause," for example, is simply a questionable conclusion about cause and effect, and you can look to Chapter V for explanation.

To understand fallacies, then, you need to understand what rules they break. This chapter begins by explaining two very general fallacies, referring them back to some of the rules in this book. Following that is a short list and explanation of a number of specific fallacies, including their Latin names when frequently used.

**The Two Great Fallacies**

One of our most common temptations is to draw conclusions from too little evidence. For example, if the first Lithuanian I meet has a fiery temper, I might jump to the conclusion that *all*
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Lithuanians have fiery tempers. If one ship disappears in the Bermuda Triangle, the *National Enquirer* proclaims the Bermuda Triangle haunted. This is the fallacy of generalizing from incomplete information.

Consider how many of the rules in Chapters II-VI are directed against this fallacy. Rule 8 requires more than one example: You cannot draw a conclusion about the entire student body of your college based on yourself or your roommate. Rule 9 requires representative examples: You cannot draw a conclusion about the entire student body of your college based on your student friends, even if you have a lot of them. Rule 10 requires background information: If you draw a conclusion about the student body of your college based on a sample of 30 people, you also must consider how big the student body is (30? 30,000?). Arguments from authority require that the authority not overgeneralize: He or she must have the information and the qualifications to justify the judgment you quote. Rule 19 warns us not to assume that just because we've found one possible cause for an event, we've therefore found the cause. Other causes may still be more likely.

A second common fallacy is overlooking alternatives. Rules 20-23 pointed out that just because events A and B are correlated, it does not follow that A causes B. B could cause A; something else could cause both A and B; A may cause B and B may cause A; or A and B might not even be related. These alternative explanations may be overlooked if you accept the first explanation that occurs to you. Don't rush; there are usually many more alternative explanations than you think.

For example, consider one more argument about causes:

A good way to avoid divorce is to make love frequently, because figures show that spouses who make love frequently seldom seek divorce.

Frequent lovemaking is correlated with staying married, and is therefore supposed to be the cause (or a cause) of staying married. But staying married also may lead to frequent lovemaking. Or something else (love and attraction!) may cause both frequent lovemaking and staying married. Or each may cause the other. Or possibly making love and staying married are not even related!

We also often overlook alternatives when we make decisions. Two or three options stand out, and we weigh only these. In his famous essay "Existentialism Is a Humanism," philosopher Jean-Paul Sartre tells of a student of his, during the Nazi occupation of France in World War II, who had to choose between making a risky voyage to England to fight with the Free French and staying with his mother in Paris to look after her. Sartre paints the picture as if the young man must either stake everything on a flight to England and thus totally abandon his mother, or else commit himself entirely to her and give up any hope of fighting the Nazis. But surely he had other possibilities. He could have stayed with his mother and still worked for the Free French in Paris; or he could have stayed with his mother for a year and tried to ensure her position, gradually making it possible to leave. And are we to think of his mother as completely dependent and graspingly selfish, or was she perhaps a little patriotic and possibly self-sufficient too? Had he even asked her what she wanted? Very likely, then, the student had other options.

On ethical issues too we tend to overlook alternatives. We say that either the fetus is a human being with all the rights you and I have, or else it is a lump of tissue with no moral significance at all. We say that either every use of animal products is wrong or all of the current uses are acceptable, and so on. Again, however, surely other possibilities exist. Try to increase the number of options you consider, not narrow them!

Some Classical Fallacies

*ad hominem:* attacking the person of an authority rather than his or her qualifications. See Rule 17.
ad ignorantiam (appeal to ignorance): arguing that a claim is true just because it has not been shown to be false. A classic example is this statement by Senator Joseph McCarthy when he was asked for evidence to back up his accusation that a certain person was a Communist:

I do not have much information on this except the general statement of the agency that there is nothing in the files to disprove his Communist connections.

ad misericordiam (appeal to pity): appealing to pity as an argument for special treatment.

I know I flunked every exam, but if I don't pass this course, I'll have to retake it in summer school. You have to let me pass!

Pity is not always a bad argument, but it is certainly inappropriate when objective evaluation is called for.

ad populum: appealing to the emotions of a crowd; also, appealing to a person to go along with the crowd. "Everyone's doing it!" Ad populum is a good example of a bad argument from authority: No reasons are offered to show that "everybody" is an informed or impartial source.

affirming the consequent: a deductive fallacy of the form

If p then q.
q.
Therefore, p.

In the statement "if p then q," p is called the "antecedent" and q the "consequent." The second premise of a modus ponens—a valid form—affirms (asserts) the antecedent (check it out). Affirming the consequent, though, yields an invalid form. A true conclusion is not guaranteed even if the premises are true. For example:

When the roads are icy, the mail is late.
The mail is late.
Therefore, the roads are icy.

Although the mail would be late if the roads were icy, it also may be late for other reasons. This argument overlooks alternative explanations.

begging the question: implicitly using your conclusion as a premise.

God exists because it says so in the Bible, which I know is true because God wrote it, after all!

To write this argument in premise-and-conclusion form, you'd have to write

The Bible is true, because God wrote it.
The Bible says that God exists.
Therefore, God exists.

To defend the claim that the Bible is true, the arguer claims that God wrote it. But, obviously, if God wrote the Bible, God exists. Thus the argument assumes just what it is trying to prove.

circular argument: same as begging the question.

complex question: posing a question or issue in such a way that people cannot agree or disagree with you without committing themselves to some other claim you wish to promote. A
simple example: "Are you still as self-centered as you used to be?" Answering either "yes" or "no" commits you to agreeing that you used to be self-centered. More subtle example: "Will you follow your conscience instead of your pocketbook and donate to the cause?" Saying "no," regardless of their real reasons for not donating, makes people feel guilty; saying "yes," regardless of their real reasons for donating, makes them noble. If you want a donation, the honest thing is just to ask for it.

denying the antecedent: a deductive fallacy of the form

\[
\text{If } p \text{ then } q. \\
\text{Not-}p. \\
\text{Therefore, not-}q.
\]

In the statement "If \( p \) then \( q \)," \( p \) is called the "antecedent" and \( q \) the "consequent." The second premise of a modus tollens—a valid form—denies the consequent (check it out). Denying the antecedent, however, yields an invalid form. A true conclusion is not guaranteed even if the premises are true. For example:

When the roads are icy, the mail is late.

The roads are not icy.

Therefore, the mail is not late.

Although the mail would be late if the roads were icy, it also may be late for other reasons. This argument overlooks alternative explanations.

equivocation: see Rule 7.

false cause: generic term for a questionable conclusion about cause and effect. To figure out specifically why the conclusion is (said to be) questionable, turn to Rules 20-23.

false dilemma: reducing the options you consider to just two, often sharply opposed and unfair to the people the dilemma is posed against. For example, "America: Love it or Leave it." Here is a more subtle example from a student paper: "Since the universe could not have been created out of nothingness, it must have been created by an intelligent life force..." Is creation by an intelligent life force the only other possibility? False dilemmas often include loaded language; they also, obviously, overlook alternatives.

loaded language: see Rule 5.

non sequitur: drawing a conclusion that "does not follow," that is, a conclusion that is not a reasonable inference from the evidence. Very general term for a bad argument. Try to figure out specifically what is supposed to be wrong with the argument.

the "person who" fallacy: see Rule 10.

persuasive definition: defining a term in a way that appears to be straightforward but that in fact is loaded. For example, Ambrose Bierce, in The Devils Dictionary, defines "faith" as "belief without evidence in what is told by one who speaks without knowledge, of things without parallel." Persuasive definitions may be favorably loaded too: for example, defining "conservative" as "someone with a realistic view of human limits." See the Appendix on definition.

petitio principii: Latin for begging the question.

poisoning the well: using loaded language to disparage an argument before even mentioning it.

I'm confident you haven't been taken in by those few holdouts who still haven't outgrown the superstition that...
More subtle:

No sensitive person thinks that...

post hoc, ergo propter hoc (literally, "after this, therefore because of this"): assuming causation too readily on the basis of mere succession in time. Again a very general term for what Chapter V tries to make precise. Turn to Chapter V and try to figure out specifically why the argument is supposed to assume causation too readily.

red herring: introducing an irrelevant or secondary subject and thereby diverting attention from the main subject. Usually the red herring is an issue about which people have strong opinions, so that no one notices how their attention is being diverted. In a discussion of the relative safety of different makes of cars, for instance, the issue of which cars are made in America is a red herring.

straw man: caricaturing an opposing view so that it is easy to refute; see Rule 5.

weasel word: changing the meaning of a word in the middle of your argument so that your conclusion can be maintained, though its meaning may have shifted radically. Usually a maneuver performed under the pressure of a counterexample.

A. All studying is torture.
B. What about studying argument? You love that!
A. Well, that's not really studying.

Here "studying" is the weasel word. A's response to B's objection in effect changes the meaning of "studying" to "studying that is torture." A's first statement remains true, but only at the cost of becoming trivial ("All studying that is torture is torture"). See also the discussion of "selfish" under Rule 7, and the Appendix on definition.

APPENDIX

Definition

Some arguments require attention to the meaning of words. Sometimes we may not know the established meaning of a word, or the established meaning may be specialized. If the conclusion of your argument is that "Wejacks are herbivorous," your first task is to define your terms, unless you are speaking to an Algonquian ecologist.* If you encounter this conclusion elsewhere, the first thing you need is a dictionary.

Other times, a term may be in popular use but still be unclear. We debate "assisted suicide," for example, but don't necessarily understand exactly what it means. Before we can argue effectively about it, we need an agreed-upon idea of what we are arguing about.

Still another kind of definition is required when the meaning of a term is contested. What is a "drug," for example? Is alcohol a drug? Is tobacco? What if they are? Can we find any logical way of answering these questions?

* "Wejack" is the Algonquian name for the fisher, a weasel-like animal of eastern North America. "Herbivores" are animals that eat only or mostly plants. Actually, wejacks are not herbivorous.