Fallacies in Logic

Fallacies pose as logical proof, but you will see that they actually prove nothing at all. You may have trouble remembering all of their names; many people do. Concentrate instead on the fallacious thinking, characterized by each of them, such as introducing irrelevant material; exaggerating; providing wrong, unfair, inadequate, or even no support; harboring unacceptable warrants; drawing inappropriate conclusions; and oversimplifying the choices.

Begging the Question. No support is provided by the arguer who begs the question, and the claim is simply restated, over and over again, in one form or another. For example, "Climate change does not exist because the climate is not really changing" simply restates the same idea in other words. Here are other familiar examples: "Why is this true? It's true because I know it's true." "Everyone knows that the president of the United States has done his best for the environment because he said so" or "because he's the president."

You can remember the name of this fallacy, begging the question, by recalling that the arguer, when asked for support, begs off and simply restates the claim in the same or different words.

Red Herring. A red herring provides irrelevant and misleading support that pulls the audience away from the real argument. For example, "I don't believe we should elect this candidate because she would have to put her kids in day care" is a red herring; qualifications to hold office have nothing to do with household arrangements. Citing the existence of weapons of mass destruction as a reason

for starting the war with Iraq in 2003 turned out to be a red herring when it became evident that the weapons did not exist. Authors of detective fiction sometimes use red herrings in their plots as false clues to divert the reader's attention from the real murderer.

To remember the red herring fallacy, recall that the fish, the red herring, was at one time used to train hunting dogs to follow a scent. It was not a true scent, however. The herring scent was irrelevant to the real smells of the real hunt, and the fallacy, the red herring, is irrelevant to an argument when it introduces such unrelated support. To argue that a person's parental responsibilities is a factor in the person's qualifications for a job or whether nonexistent weapons of mass destruction justify a preemptive war is to use this "fishy fallacy."

Non Sequitur. *Non sequitur* is Latin for "it does not follow." In this type of fallacy, the conclusion does not follow from the evidence and the warrant. Here are some examples: the professor in the Hawaiian shirt and gold chains must be an easy grader; the self-consciously beautiful woman who has applied for a job as a secretary would not do the job well; that man with the powerful new computer must be highly skilled in the use of computer technology. The warrants for these three examples are that the professor's clothes indicate how he will grade, beautiful women cannot be good secretaries, and owning powerful equipment implies the ability to use it. You can probably sense the problems with these warrants. They are so difficult for most people to accept that none of these examples come across as convincing arguments. Here is another example of a non sequitur: women should not be placed in executive positions because they cannot drive cars as well as men.

Straw Man. A straw man involves attributing an argument to an opponent that the opponent never made and then refuting it in a devastating way. The arguer sets up an idea, refutes it, and appears to win, even though the idea may be unrelated to the issue being discussed. For example, a political candidate might set up a straw man by claiming that his opponent has said he is too old to do the job, when in fact the opponent has never mentioned age as an issue. Then the candidate refutes the age issue by detailing the advantages of age and appears to win the argument even though this is not an issue at all. In fact, by refuting this false issue, the candidate may give the impression that he could refute any other arguments put forth by the opposition as well. The use of a straw man suggests competence where it might not actually exist.

Misusing Evidence. Stacking evidence to represent only one side of an issue that clearly has two sides gives a distorted impression of the issue. For example, to prove that television is an inspiring and uplifting medium, the only evidence given is that PBS nature shows are educational, *Friends* promotes personal bonds, and news programs and documentaries keep audiences informed. The sex and violence programming and the commercials are never mentioned. Evidence can be misused in other ways, including providing unreliable or insufficient evidence, using distorted or made-up evidence, or manipulating statistics to make them serve as false proof.

Either-Or. Some arguments are oversimplified by the arguer and presented as black-or-white, either-or choices when there are actually other alternatives. Some examples are, "This country can either have a strong defense program or a strong social welfare program," "We can develop either a strong space program or an urban development program," "A woman can either be a mother or have a career," and "A man can either go to graduate school or become a company man." No alternative, middle-ground, or compromise positions are acknowledged.

Post Hoc. This is short for *post hoc, ergo propter hoc,* a Latin phrase that translates as "after this, therefore because of this." To put it more simply, post hoc is the *fallacy of faulty cause*. For example, it is fallacious to claim in an advertisement that people will be more attractive and more popular if they drink a certain brand of cola. Look at other advertisements on television or in magazines, and you will easily find other examples of post hoc, the claim that one thing causes another when there is actually no causal relationship between them. Think of the fun-loving guys in beer advertisements, for example, and the suggestion that they got that way by drinking beer. Another example is the person who finds romance by serving a particular spaghetti sauce or using a specific cologne.

Hasty Generalization. Sometimes arguers "jump to conclusions" by basing a conclusion on too few examples. For example, someone may conclude that the justice system is hopelessly flawed because a man is sent to jail by mistake or that since some students in urban schools belong to gangs, most students in those schools belong to gangs. Hasty generalizations often contribute to stereotyping.

Fallacies That Affect Character or *Ethos*

Fallacies that are aimed at attacking character or at using character instead of evidence for proof are misleading and can damage *ethos*.

Ad Hominem. *Ad hominem* means "to the man" in Latin. An ad hominem argument attacks a person's character rather than a person's ideas. The press is notorious for such attacks during political campaigns, and so are some of the candidates themselves. The "character issue," for example, may receive more attention than more serious, substantive issues. Thus negative information is provided about the candidates' personal lives rather than about their ideas and the issues that concern them. The purpose of ad hominem arguments is to discredit these individuals with the public. Here is another example of an ad hominem attack: piety is said to have no value or validity because of the careless personal and financial habits of a television evangelist. This *ad hominem* argument directs attention away from the issue (here, the value of religious piety) and toward the person as bad. As a result we become prejudiced and biased against both an individual personally and an institution generally instead of evaluating facts or ideas when ad hominem exchange predominates.

Guilt by Association. The fallacy of guilt by association suggests that people's character can be judged by examining the character of their associates. For example, an employee in a company that defrauds the government is declared dishonest

because of his association with the company, even though he may have known nothing of the fraud. Or, an observer is thrown into jail along with some political protesters simply because she was in the wrong place at the wrong time. Political figures are often judged as morally defective if they associate with people with questionable values and reputations. It is assumed that these individuals are members of these groups and guilty by association.

Using Authority Instead of Evidence. This is a variation of begging the question. The arguer relies on personal authority to prove a point rather than on evidence. For example, a salesman tells you to buy the used car because he is honest and trustworthy and he knows your neighbor.

Emotional Fallacies

Irrelevant, unrelated, and distracting emotional materials are often introduced into argument to try to convince the audience. Here are some examples.

Bandwagon Appeal. The argument is that since everyone is doing a particular thing, you should too. For example, everyone is watching reality TV, so you should jump on the bandwagon and watch it. Political and other public opinion polls are sometimes used to promote the bandwagon appeal. The suggestion is that since a majority of the people polled hold a certain opinion, you should adopt it also. Evaluate the ideas or actions being recommended before you accept them.

Slippery Slope. The slippery-slope fallacy is a scare tactic that suggests that if we allow one thing to happen, we will immediately be sliding down the slippery slope to disaster. This fallacy is sometimes introduced into environmental and abortion issues. If we allow loggers to cut a few trees, we will soon lose all the forests. Or, if a woman is required to wait twenty-four hours to consider her decision to have an abortion, soon there will be so many restrictions that no one will be able to have an abortion. This fallacy is similar to the saying about the camel that gets its nose into the tent. If we permit the nose today, we have the whole camel to deal with tomorrow. It is better not to start because disaster may result.

Creating False Needs. Emotional proofs, as you have learned, appeal to what people value and think they need. Sometimes an arguer will create a false sense of need where none exists or will unrealistically heighten an existing need. The intent is to make the argument more convincing. Advertising provides excellent examples. The housewife is told she needs a shining kitchen floor with a high gloss that only a certain wax can provide. Parents are reminded that they want smart, successful children, so they should buy a computer for each of them.

These examples of fallacies provide you with a good sense of what constitutes fallacious reasoning. Armed with this list and with the tests of validity for genuine proofs listed under "Tests of Validity" in the Summary Charts (pages 307–312), you now have what you need to evaluate the strength and validity of

the proofs in an argument. This information will help you make evaluations, form rebuttals to challenge weak arguments, and create arguments of your own that rely on genuine proofs instead of fallacies. We now leave unethical argument with its fallacies and faulty evidence and turn to the subject of ethics and morality in argument.