Designing Effective Projects: Analysis
Informal Reasoning Fallacies

Errors in Reasoning

Poor quality evidence and unreasonable warrants often lead to faulty conclusions. These errors in reasoning are often described as informal reasoning fallacies. Knowledge of these fallacies can help students form more powerful arguments and be better thinkers.

Hasty Generalizations

When people form opinions based on too little evidence or too few examples, they are making hasty generalizations. An example of this fallacy would be a person watching a story on the TV news about a woman cheating on welfare and assuming that most people on welfare are cheaters. Stereotypes are often the result of hasty generalizations. One type of hasty generalization is the spotlight fallacy in which those cases which are most well-known are believed to be representative of a majority of cases.

Accident

This type of fallacy occurs when individuals base an opinion on the exception to a rule. For example, although people generally agree that killing other people is wrong, most agree that there are times, such as in defense of yourself or others, when it might be acceptable. Reasoning by accident would say that since killing in self-defense is not wrong, then killing in another kind of situation is not wrong.

False Cause

This fallacy in reasoning occurs when students think that because two events happen one right after another, one causes the other. Both events could be caused by the same third event or they could just coincidentally happen at the same time. Many superstitions come from this kind of reasoning. “When I wear my lucky shirt, I always do well on tests.”

False Analogy

Comparing two similar concepts or ideas through analogies can be a powerful tool for understanding unfamiliar concepts. Faulty reasoning comes into play, however, when unreasonable comparisons are made. For example, there are similarities among the American Revolution, the French Revolution, and the Mexican Revolutions, but making judgments about one might be faulty since there are also significant differences among the three revolutions.

Poisoning the Well

This strategy is used by people who are so committed to a particular point of view that they discount any evidence that conflicts with their views. A high school student, for example, may rant that Shakespeare’s plays are stupid and refuse to acknowledge that millions of people have enjoyed them for centuries.

Begging the Question

This fallacy, which is also called circular reasoning, is used when people use a claim itself as evidence for the validity of the claim. For example, a student would be begging the question if in response to the question, “Who was the most effective president of the United States,” she wrote, “Lincoln was the most effective president because he’s the best one we ever had.” Another student, asked to provide reasons for his choice of a favorite book would say, “This was the best book because I liked it.”

Evading the Issue

This type of reasoning is often used by public figures who do not want to discuss a particular topic for some reason. The reason may be valid, as in cases of confidentiality or security, or the topic may just be embarrassing or negative. For example, a mayor may respond to question about corruption in his administration by describing how the beautification of the city’s parks is

progressing.

Appeals to Authority
Persuasive evidence has credibility, and this kind of evidence can come from a respected authority. Although some may disagree with the opinions of the American Medical Association or the National Education Association, their views have the authority of coming from a knowledgeable source. Some authorities, on the other hand, are either inappropriate for particular arguments or only valued by particular groups. Appeals to religious authorities, for example, are only powerful arguments for those who are part of the religion. Other such appeals, such as the tried-and-true, “Because I said so” invoked often by parents may be effective and efficient at times, but they are not necessarily examples of good reasoning.

Arguing from Ignorance
This strategy claims that since a claim cannot be proved to be false, it must be true. “You can’t prove there are no flying saucers, so that means they must exist.”

Bandwagon
Used often in advertising, this fallacy appeals to the desire of humans to be accepted and like others. People are asked to believe or do something because “everyone else is doing it.” A clothing ad might imply that you should buy these jeans because all the “cool kids” wear them. A common retort to this argument is the popular, “If everyone else jumped off a cliff, would you do it, too?”

False Dilemma
Also called black-and-white-thinking, this type of reasoning reduces complex issues with multiple options to either-or issues. A common example of this fallacy is “America. Love it or leave it.” A student using this type of reasoning might say, “Either you like me and give me an A or you don’t like me and give me a C” or “Either you believe in prayer in schools or you’re an atheist.”

Straw Man
Picture this scenario. Lola Byron is running for city council and makes the following statement about the candidate running against her: “My opponent, Dirk Headstone, is in favor of raising taxes to build a golf course for the town’s elite.” A person using this strategy portrays an opponent’s point of view inaccurately or incompletely so that it can be easily discounted. The name of this fallacy comes from the idea that a straw man can be burned and destroyed more easily than a real opponent.

These fallacies in reasoning abound both in public communications as well as in private conversations. Awareness of these common pitfalls in logic is important if students are to develop into good thinkers.