

Logical Fallacies

Remember, there's more to good writing than proper comma use and thesis statements. Good writing also includes good arguments. If a writer's arguments aren't strong, they can overshadow the paper's desirable qualities. Below is a list of some common informal fallacies, which means they are common logical errors that all humans can commit.

Appeal to Authority: This occurs when a person bases an argument on the fact that someone without specialized knowledge of the subject made a claim about it. For example, consider the statement "My physics professor said William Shakespeare is not a very good writer, so therefore Shakespeare is not a very good writer." A physics professor specializes in *physics* - not literature. *Make sure the people you quote are specialists regarding the subject.*

Appeal to the People: This occurs when a person assumes something is true because many other people assume it is true. For example, consider the statement "Elvis was a wonderful musician because so many people like him." Just because many people agree about something does not make it true.

Don't assume something is true because many other people assume it is true.

Appeal to Pity: This occurs when a conclusion is drawn based on emotion. For example, consider the statement "My friend stole a car, but his was broken down, he is poor, he has bad parents, and his wife left him; therefore, it's acceptable that he stole the car." Regardless of this poor fellow's circumstances, he still committed the action of stealing the car.

Conclusions should not be based on emotion or sympathy.

Appeal to Ignorance: This occurs when a person claims that something is true because it is not proved false or when someone assumes something is false because it is not proved true. For example, consider the statement "Quantum mechanics has never been proved true, so it must be false." (Proof requires extremely high standards of accuracy; many things you believe are not - and never will be - proven).

Just because something is not proved true does not make it false and vice versa.

Ad Hominem (also called the "You, too!" argument): A common form of the *ad hominem* argument is when a person defends his actions by pointing out the faults in other's actions. For example, consider the statement "I cheated on my wife, but who are you to judge me? You cheated on your wife, too." An *ad hominem* also occurs when a person attacks another person's character rather than the person's argument. For example, consider the statement "Bill Clinton's economic policy was ridiculous! He was a womanizer who cheated on his wife." However, in reality Clinton's views about women have nothing to do with his economic policy.

Attack the idea - not the person. Also, it is illogical to assume an act is acceptable because someone else committed the same act.

False Cause: This occurs when a person wrongly assumes that one event *caused* another. For example, event A, which occurred before event B, caused event B. Consider the statement, "A black cat ran in front of my car, and later I got in a wreck; therefore, the cat caused the car wreck." This is ridiculous.

When claiming that one event caused another, good evidence must be available to support the claim. If no evidence is available that proves event A caused event B, then don't claim that event A caused event B.

Slippery Slope: This occurs when a person wrongly claims that one event will trigger a chain of events. Think of lining up dominos and pushing one over. All the other dominos will fall. Well, this is true for dominos, but not for logic. Consider the statement "If you fail English class, you will not graduate from college, be forced to work for minimum wage, and die poor and lonely." Though this is possible, it is not probable.

Don't claim that one event will trigger a chain of events unless you have very good evidence that it will.

Either/Or Fallacy (also called False Dichotomy): This occurs when a person assumes there are only two solutions to a problem. (e.g. "I can either do X or Y"). Consider the statement, "I can either vote for Kerry or Bush." Actually, there are other options. A person could choose not to vote, vote for another candidate on the ballot, write in a name, or "vote with his feet" by leaving the United States. Also, consider the statement "We can either win the war in Iraq or be attacked by terrorists again." There are many more ways to fight terror than winning the war in Iraq - it is not an either/or situation.

Don't assume a problem only has two solutions. Take a deep look at problems because most of them have multiple solutions.

Hasty Generalization: This occurs when a person makes a claim based on an inaccurate sample size. Consider the statement, "The notion that African Americans are not as wealthy as whites is ridiculous. Look at Bill Cosby, Oprah Winfrey, and Michael Jordan. They're all filthy rich." The person making this claim is basing it on the wealth of three African Americans. If a person looked at the income of 20,000 African Americans, he would quickly realize that basing his idea of an entire race's wealth on the wealth of three individuals is illogical.

When making a claim about a large group - such as a race or sexual orientation - basing your argument on the experience of only a few is illogical; sample size should be reasonable when compared to group size.

False Analogy: Reasoning by analogy - or comparing the likeness of two items - is the most common form of human logic. The problem arises when a person assumes that because two (or more) things have one thing in common, they have more things in common. A human and a dog have many similarities: they are both living, they both (debatably) learn from experience, they both have the ability to make verbal sounds, etc. However, based on these similarities, it would be illogical to assume that because humans drive cars, so do dogs. Consider the following statement: "Humans are a lot like cars. Both humans and cars get old and worn out. When a car is old, we throw it away; therefore, we should throw humans away when they get old." The person who made this statement forgot that, though similar, humans and cars have very big differences. Just because humans and cars have a few similarities does not mean they are infinitely similar.

Wrongly assuming that one likeness necessitates other likenesses is illogical.