

Errors in Logic

There are three common errors often made when constructing arguments. Avoiding them will result in a much stronger argument.

Error #1: Generalization

A generalization is when you take something that applies to one person or thing and globalize it by saying it applies to all people or things similar to that one person or thing.

Example: All women want to be mothers.

Issue: We know that not all women want to be mothers. There is plenty of research and anecdotal evidence to prove this. Some women, or possibly many women, want to be mothers, but that is not the same thing as saying that it is something all women want.

Solution: Be specific and stick to claims that can be checked and backed up by sources.

Error #2: Appeals to Emotion

An appeal to emotion usually occurs when there is not enough evidence to back up what you think is correct, so instead you just use that reasoning that it “feels” a particular way (wrong, immoral, right, etc.)

Example: People shouldn’t cheat on their partners because it is wrong.

Issue: What does wrong mean here? According to who is it wrong? What may be wrong to one person may be completely acceptable to another. There are many studies that show how cheating hurts relationships and the people in them, which can be used to prove the point not that cheating is just wrong, but that it is wrong because it is harmful.

Solution: Figure out the underlying cause of this emotion. Just because it is emotion doesn’t mean it is incorrect, it just means that you need to find a different way to justify the claim. Find sources that prove your point without relying on emotion.

Error #3: Correlation vs. Causation

Errors in cause and effect usually appear when two things happen at the same time, but one is not causing the other. It is easy to assume that one is causing the other, but many times that is not the case.

Example: You will get sick if you go outside in cold weather with wet hair.

Issue: The only way to catch a cold is by being exposed to the germs that cause it. Having wet hair does not make you more likely to come into contact with those germs. However, more people do catch colds in the winter, so whether or not you go out with wet hair, you are more likely to catch a cold in the winter. One does not cause the other, but more people get colds in the winter, and more people go out in cold weather with wet hair in the winter (because that is when it's cold out!). These two things *correlate*.

Solution: Be sure to check if things are actually causing one another, or if they are just happening together (correlating).



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