

A fallacious argument may be deceptive by appearing to be better than it really is. Some fallacies are committed intentionally to manipulate or persuade by deception, while others are committed unintentionally due to carelessness or ignorance.

Aristotle was the first to systematize logical errors into a list, as being able to refute an opponent's thesis is one way of winning an argument

Sometimes a speaker or writer uses a fallacy intentionally. In any context, including academic debate, a conversation among friends, political discourse, advertising, or for comedic purposes, the arguer may use fallacious reasoning to try to persuade the listener or reader, by means other than offering relevant evidence, that the conclusion is true.

Examples of this include the speaker or writer:

- Diverting the argument to unrelated issues with a red herring (Ignoratio elenchi)
- Insulting someone's character (argumentum ad hominem)
- Assume the conclusion of an argument, a kind of circular reasoning, also called "begging the question" (petitio principii)
- Making jumps in logic (non-sequitur)
- Identifying a false cause and effect (post hoc ergo propter hoc)
- Asserting that everyone agrees (argumentum ad populum, bandwagoning)
- Creating a "false dilemma" ("either-or fallacy") in which the situation is oversimplified
- Selectively using facts (card-stacking)
- Making false or misleading comparisons (false equivalence and false analogy)
- Generalizing quickly and sloppily (hasty generalization)

In philosophy, the term formal fallacy is used for logical fallacies and defined formally as: a flaw in the structure of a deductive argument which renders the argument invalid. The term is preferred as logic is the use of valid reasoning and a fallacy is an argument that uses poor reasoning therefore the term logical fallacy is self-contradictory. However, the same terms are used in informal discourse to mean an argument which is problematic for any reason. A logical form such as "A and B" is independent of any particular conjunction of meaningful propositions. Logical form alone can guarantee that given true premises, a true conclusion must follow. However, formal logic makes no such guarantee if any premise is false; the conclusion can be either true or false. Any formal error or logical fallacy similarly invalidates the deductive guarantee. Both the argument and all its premises must be true for a statement to be true.

The ancient Greek Sophist Protagoras was one of the first thinkers to propose that humans can generate reliable measurements through his "human-measure" principle and the practice of dissoi logoi (arguing multiple sides of an issue). This history helps explain why measurement fallacies are informed by informal logic and argumentation the

An ecological fallacy is committed when one draws an inference from data based on the

Fallacy in Arguments

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premise that qualities observed for groups necessarily hold for individuals; for example, "if countries with more Protestants tend to have higher suicide rates, then Protestants must be more likely to commit suicide." In metrical argumentation, ecological fallacies can be committed when one measures scholarly productivity of a sub-group of individuals (e.g. "Puerto Rican" faculty) via reference to aggregate data about a larger and different group (e.g. "Hispanic" faculty).

Fallacies are defects that weaken arguments; Logical fallacies are errors in reasoning that invalidate the argument.

It is important to understand what fallacies are so that you can recognize them in either your own or others' writing. Avoiding fallacies will strengthen your ability to produce strong arguments. It is important to note that; Fallacious arguments are very, very common and can be quite persuasive, at least to the casual reader or listener. You can find dozens of examples of fallacious reasoning in newspapers, advertisements, and other sources. It is sometimes hard to evaluate whether an argument is fallacious. An argument might be very weak, somewhat weak, somewhat strong, or very strong. An argument that has several stages or parts might have some strong sections and some weak ones.

This fallacy gets its name from the Latin phrase "post hoc, ergo propter hoc," which translates as "after this, therefore because of this." Definition: Assuming that because B comes after A, A caused B. Of course, sometimes one event really does cause another one that comes later—for example, if I register for a class, and my name later appears on the roll, it's true that the first event caused the one that came later. But sometimes two events that seem related in time aren't really related as cause and event. That is, correlation isn't the same thing as causation.

Slippery slope

Definition: The arguer claims that a sort of chain reaction, usually ending in some dire consequence, will take place, but there's really not enough evidence for that assumption. The arguer asserts that if we take even one step onto the "slippery slope," we will end up sliding all the way to the bottom; he or she assumes we can't stop halfway down the hill.

[Source of Information](#)