

## A sampling of logical fallacies:

**Begging the question:** (Latin: *petitio principii*, "assuming the initial point") is a type of informal fallacy in which an implicit premise would directly entail the conclusion; in other words, basing a conclusion on an assumption that is as much in need of proof or demonstration as the conclusion itself.

*"Benadryl makes you sleepy because one of its side effects is drowsiness."*

**Ignoratio elenchi:** aka. **irrelevant conclusion**, the informal fallacy of presenting an argument that may or may not be logically valid, but fails nonetheless to address the issue in question.

**No true Scotsman:** this fallacy modifies the subject of the assertion to exclude the specific case or others like it by rhetoric, without reference to any specific objective rule ("no *true* Scotsman would do such a thing")

*Person A: "No Scotsman puts sugar on his porridge."*

*Person B: "I am Scottish, and put sugar on my porridge."*

*Person A: "Then you are not a true Scotsman."*

**Gambler's fallacy:** the mistaken belief that if something happens more frequently than normal during some period, then it will happen less frequently in the future (presumably as a means of *balancing* nature).

*"I've lost 37 pulls of the slot machine. This one'll be the winner."*

**Tu quoque:** a logical [fallacy](#) that attempts to discredit the opponent's position by asserting the opponent's failure to act consistently in accordance with that position; it attempts to show that a criticism or objection applies equally to the person making it.

*The pot comments on the blackness of the kettle.*

**Circular reasoning:** a logical fallacy in which "the reasoner begins with what s/he is trying to end up with". The components of a circular argument are often logically valid because if the premises are true, the conclusion must be true. However, the argument is useless because the conclusion is one of the premises. Circular logic cannot prove a conclusion because, if the conclusion is doubted, the premise which leads to it will also be doubted. [Begging the question](#) is a form of circular reasoning.

*"Brawndo's got what plants crave – it's got electrolytes. "What are electrolytes?" "It's what they use to make Brawndo."*

**Snow job:** The fallacy of "proving" a claim by overwhelming an audience with mountains of irrelevant facts, numbers, documents, graphs and statistics that they cannot be expected to understand. This is a corrupted argument from *logos*. See also, "**Lying with Statistics**" and "**Blinding with Science**"

*In response to the lawsuit regarding one single product, the tobacco company sent a truckload of files to the lawyer's office.*

**Appeal to novelty:** The mistaken belief that something is valid merely because it is new or modern

*You should put Brawndo on those plants. It's new, and it's got what plants crave.*

**Accent fallacy:** This depends on where the stress is placed in a word or sentence. The meaning of a set of words may be dramatically changed by the way they are spoken, without changing

any of the words themselves. Accent fallacies are a type of equivocation.

*I **can** imagine him doing that.*  
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**Existential fallacy:** 'we presuppose that a class has members' when we are not supposed to do so; that is, when we should not assume existential import.

*"Everyone in the room is pretty and smart." (but we don't know if there's any actual people in the room)*

**Wishful thinking:** The formation of beliefs and making decisions according to what might be pleasing to imagine instead of by appealing to evidence, rationality, or reality.

*"...[S]tock prices have reached what looks like a permanently high plateau," - economist Irving Fisher, a few weeks before the Stock Market Crash of 1929, which was followed by the Great Depression.*

**Appeal to wealth:** The mistaken belief in the speaker's credibility due to the fact that s/he has a lot of money.

*If Bill Gates says it, it must be true.*

**Appeal to tradition:** aka *argumentum ad antiquitatem*, - a thesis is deemed correct on the basis that it correlates with some past or present tradition. The appeal takes the form of "this is right because we've always done it this way."

*Look, we've always treated the flu by bleeding people with a knife.*

**Slippery slope** a relatively small first step leads to a chain of related events culminating in some significant effect, much like an object given a small push over the edge of a slope sliding all the way to the bottom. The strength of such an argument depends on the warrant, i.e. whether or not one can demonstrate a process which leads to the significant effect.

*If your cable is bad, you see things you shouldn't see. [...] you flee from the mafia [...] fake your own death [...] bleach your hair [...] attend your own funeral*

**The big lie** Expression coined by Hitler, in 1925 book *Mein Kampf*, about use of a lie so "colossal" that no one would believe that someone "could have the impudence to distort the truth so infamously." Hitler asserted the technique was used by Jews to unfairly blame Germany's loss in World War I on German Army officer Erich Ludendorff.

*Germany lost WWI, and it's because of the Jews.*

**Appeal to heaven** Asserting the conclusion must be accepted because it is the "will of God" or "the will of the gods". In the mind of those committing the fallacy, and those allowing to pass as a valid reason, the will of God is not only knowable, but the person making the argument knows it, and no other reason is necessary.

*"Why'd you chop those people up and feed them to pigs?" "God told me to." "Oh, ok."*

**If by whiskey** the response to a question is contingent on the questioner's opinions and use of words with strong positive or negative connotations (e.g., *terrorist* as negative and *freedom fighter* as positive). An if-by-whiskey argument implemented through doublespeak appears to affirm both sides of an issue, and agrees with whichever side the listener supports, in effect, taking a position without taking a position.

**Three men make a tiger:** an individual's tendency to accept absurd information as long as it is repeated by enough people. It refers to the idea that if an unfounded premise or urban legend is mentioned and repeated by many individuals, the premise will be erroneously accepted as the truth. This concept is analogous to the fallacy of *argumentum ad populum*.

**Appeal to ignorance:** aka. *argumentum ad ignorantiam*), (in which *ignorance* stands for "lack of evidence to the contrary"), is a fallacy in informal logic. It asserts that a proposition is true because it has not yet been proven false (or vice versa). This represents a type of false dichotomy in that it excludes a third option.

*You can't prove Bertrand Russell's giant celestial teapot \*isn't\* real, so it must be real.*

**Equivocation:** the misleading use of a term with more than one meaning or sense (by glossing over which meaning is intended at a particular time). It generally occurs with polysemic words (words with multiple meanings).

*Margarine is better than nothing. Nothing is better than butter. Ergo, margarine is better than butter.*

**Cherry picking:** aka. **The fallacy of incomplete evidence** is the act of pointing to individual cases or data that seem to confirm a particular position, while ignoring a significant portion of related cases or data that may contradict that position. It is a kind of fallacy of selective attention, the most common example of which is the confirmation bias.

**Morton's fork:** a specious piece of reasoning in which contradictory arguments lead to the same (unpleasant) conclusion. Said to originate with the collecting of taxes by John Morton, Archbishop of Canterbury in the late 15th century:

*A man living modestly must be saving money and could therefore afford taxes, whereas if he was living extravagantly then he was obviously rich and could still afford them.*

**Broken window:** illustrates why destruction, and the money spent to recover from destruction, is actually not a net-benefit to society. The parable, also known as the **glazier's fallacy**, demonstrates how opportunity costs, as well as the law of unintended consequences, affect economic activity in ways that are "unseen" or ignored.

**Argumentum verbosium:** Proof by verbosity (proof by intimidation) – submission of others to an argument too complex and verbose to reasonably deal with in all its intimate details

**Straw man:** To create the illusion of having refuted a proposition by replacing it with a superficially similar yet unequivalent proposition (the "straw man"), and to refute it, without ever having actually refuted the original position.

*A: We should liberalize the laws on beer.*

*B: No, any society with unrestricted access to intoxicants loses its work ethic and goes only for immediate gratification.*

**Argumentum ad populum:** (Latin for "**appeal to the people**") (appeal to the popular) is a fallacious argument that concludes aproposition to be true because many or most people believe it. In other words, the basic idea of the argument is: "*If many believe so, it is so.*"

**Overwhelming exception:** similar to hasty generalization. A generalization that is accurate, but comes with one or more qualifications which eliminate so many cases that what remains is much less impressive than the initial statement might have led one to believe.

*"All right, but apart from the sanitation, the medicine, education, wine, public order, irrigation, roads, a fresh water system, and public health, what have the Romans ever done for us?" – Monty Python's "The Life of Brian"*

**Argumentum ad nauseam:** or *argumentum ad infinitum* is an argument made repeatedly (possibly by different people) until nobody cares to discuss it any more. This may sometimes, but not always, be a form of proof by assertion.

**Fallacy of four terms:** (Latin: *quaternio terminorum*) occurs when a syllogism has four (or more) terms rather than the requisite three. This form of argument is thus invalid.

*Major premise: Nothing is better than eternal happiness.*

*Minor premise: A ham sandwich is better than nothing.*

*Conclusion: A ham sandwich is better than eternal happiness.*

**Nirvana fallacy:** Comparing actual things with unrealistic, idealized alternatives. It can also refer to the tendency to assume that there is a perfect solution to a particular problem. By creating a false dichotomy that presents one option which is obviously advantageous—while at the same time being completely implausible—a person using the nirvana fallacy can attack any opposing idea because it is imperfect.

*Your idea reduces, but doesn't totally eliminate, poverty. Therefore: it's useless.*

**Slothful induction:** an inductive argument is denied its proper conclusion, despite strong evidence for inference. The opposite fallacy is the hasty generalization.

*It looks like a camel, sounds like a camel, smells like a camel, and acts like a camel...  
But it could be anything.*

**Good old days:** Aka "**Golden Age Fallacy.**" In this fallacy, the arguer refers back to a semi-imaginary world in which everything was better. It is difficult to disprove this, because we can't travel back in time.

*We live in a decaying age. Young people no longer respect their parents. They are rude and impatient. They frequently inhabit taverns and have no self control.*

*—Ancient Egyptian tomb inscription*

**False dichotomy:** (aka. **false dilemma, black-and/or-white thinking, the either-or fallacy**) limited alternatives are considered, when in fact there is at least one additional option.

*You're either with us or against us!*

*'Merica! Love it or leave it!*