

Logical Fallacies

Here are some common logical fallacies that a student will want to avoid when writing an argumentative paper. Although the Latin phrases can seem overwhelming, the explanations have been simplified for clarification and understanding. Again, these are things a student should **not** do:

Fallacy	Definition	Example
Affirming the Consequent	Basing an argument on an assumption or hypothetical statement about what caused something.	While trying to convince a teenager that s/he should not drive on the highway, Patty makes a true statement that highway driving is dangerous and results in thousands of deaths each year. Next, he mentions a teenager who died last week and was mentioned in the obituaries. Of course, there is no way that he can know how this teenager died; it could have been kidney failure, so treating the assumption that the teenager died while driving as truth is bad logic and weakens the person's reasoning.
Denial of the Antecedent	Concluding that the absence of a likely cause will always mean the absence of the effect	Jethro promises a teenager that he will live a long and healthy life if he never drives drunk. What if he never drives, but soon dies of kidney failure? *Do not make assumptions about what may or may not cause something to happen.
Ambiguity	Using the same word in different senses without alerting the reader.	"That room is very dark, and the book Bill is reading is also dark." *In the first instance, "dark" refers to the absence of light. In the second instance, "dark" refers to an abstract quality similar to "evil" or "foreboding." Be sure to clarify what context a word is referencing.
Amphiboly	Misusing someone else's entire argument on a different interpretation of its wording.	Alice comes across the sentence: "The Bible was written by men who lived among Hebrews, who were divinely inspired." The author of this sentence probably means that the authors of the Bible were divinely inspired, but she claims that the author thinks that all Hebrews were divinely inspired.

Equivocation	Using the same word with two different senses.	Landon claims that the Roman cross was a cruel instrument of torture, so be sure to never cross the street without looking both ways.
Context	Quoting something out of context.	During Thanksgiving dinner, Michael overhears President Bush say how much he hates turkey. He then writes in an article the next day that Bush despises Turkey, the country.
		*This is confusing, misleading, and often interpreted as deliberate. This is highly unethical, so make sure the terms that are used and represented are defined clearly.
Argumentum ad		
antiquitam	Claiming that something is right, good, or truthful simply because it has been around for a long time.	Seeley argues that Coca-Cola is the right soda to drink because it has been around longer than Pepsi. Or that everyone should be driving Fords instead of Saturns because the Ford company is older.
		*Just because a person does things the way they have always been done, does not necessarily mean it is always right or prudent to do so.
novitam	Arguing that because something is newer then it must be better.	Temperance argues that people should use hologram preachers for Sunday worship services because that technology is newer, and thus better, than traditional public speaking.
		*Just because the way everyone always done things seems old and outdated, does not mean it is always right or prudent to replace it with something new.
baculum	Making an appeal to force or threats.	Harry argues that if Texans do not vote for a certain candidate, then he will hunt them down.
		*Nobody likes a bully.
crumenam	Claiming that a rich person (or company, religion, country, etc.) is more likely to be right and trustworthy than a poor person.	Bob argues that one can trust Enron's advertising because that company is worth a lot of money.
lazarum	Claiming that a poor person is more right or truthful than one who has money.	Sally argues that one should believe a middle- class housewife over Donald Trump because money has not corrupted her thoughts.
		*Do not base the argument on wealth (or lack thereof)!
hominem	Directly attacking another person, his or her character,	Arguing that Einstein's theory of relativity should not be accepted because Einstein was not very

	or his or her circumstances.	good looking.
populam	Appealing to emotions and enthusiasm rather than relevant facts.	*Be nice and be fair. Convincing someone to buy Danny's product or vote for him simply because he appears enthusiastic and determined, despite his dismal record on taxes, crime, etc. *Most conclusions are best based on reason
		and not personal feelings.
nauseum	Claiming that since Maddie's idea has been repeated (by a person, experts, etc.) more than the opponent's idea, then Maddie's idea must be better.	Maddie cites that more people, regardless of their expertise, have acknowledged her position on property taxes, so she must be right.
numeram	Claiming that if the majority of people believe that an idea is right, then that idea must be the best one.	Remember: Hitler was elected to office. *Most conclusions are best based on reason and not popularity or majority acceptance.
verecundiam	Appealing to authority outside of that authority's expertise, or arguing from the opinions of a person who has no authority on the subject.	Bill claims that the President's actions are always good and right simply because he has the authority of the President, or Bill claims that a New Testament scholar's thoughts on Esther are more qualified than an Old Testament scholar's. *Do not rest an argument entirely on someone's authority in a position or field of study; refer mainly to the facts.
Begging the Question	Saying that Carilee's conclusion is right by making her reader assume the truth of only one of her points.	A: How does Carilee know God exists? B: Because God wrote the Bible. A: How does Carilee know God wrote the Bible? B: Because the Bible says so. A: Why should others believe the Bible? B: Because God wrote the Bible. (This conversation still does not prove the existence of God or that God wrote the Bible. For Person A to accept Person B's conclusion that God wrote the Bible, Person A would have to admit that God does exist. However, Person A does not believe that God exists, so Person B is wrong for making Person A accept that belief in order to prove his point.) *Do not make the readers accept a specific conclusion; persuade them with facts, reason, and logic.
Bifurcation	Unfairly presenting a situation with only two alternatives	Ryan forces Derek's thirsty brother to decide between water and tea to drink while there is soda and lemonade in the fridge. *There may be many other alternatives to the problem at hand than the two provided, so forcing a choice between only two solutions is sometimes wrong. There are often more than two ways to solve a problem.

Complex, or Loaded Question (Fallacy of Interrogation)	Asking a question that has certain ideas that an audience dislikes, but any answer they give will admit to the claim; a question in which a simple yes or no is not reasonable.	A political question: "Will Perry vote for Republicans and prosperity?" (If Perry is a Democrat and answers "no," then he will be though of as against prosperity, but since Perry is a Democrat, he cannot reasonably answer "yes" either.) Question: "Has Dave stopped beating his wife?" (Answering yes or no automatically shows that the responder has beaten or still beats his wife, even though he has never committed the act.) *Be mindful of the rhetorical questions that are asked in papers!
Composition	Arguing from a definition of the parts to the properties of the whole. Claiming that certain properties of the parts define the whole itself.	Melanie claims that since all of the individual parts of her computer monitor are lightweight, then her monitor itself is lightweight.
Division	Arguing from the definition of the whole to the characteristics of the parts.	Bryan claims that his computer monitor is heavy, so its individual parts must be heavy as well. *Claiming this just does not make sense.
False Analogy	Comparing two things that are not similar.	David claims, "Nails are like employees. Just as nails must be hit on the head to make them work, so must your employees." (The head of a nail and the head of an employee are similar superficially, but not similar in the reality of the argument.) *Do not assume that because two objects share a similar property, then the objects can be compared with each other.
False Cause (post hoc, ergo propter hoc)	Arguing that simply because an event occurred earlier instantly suggests that it caused another event.	Bill argues that he got in his first car accident the day after Bush signed legislation to mandate speed limits and conclude that the new law must be responsible for his accident.
(cum hoc, ergo propter hoc)	Arguing that simply because two events occurred simultaneously suggests that they are related.	Sandra argued that she fell and broke her leg in Dallas at the same moment an earthquake occurred in California, so the earthquake must be responsible for her broken leg. *A person must be able to back up s/he cause and effect claims with facts, not coincidences.
Hasty Generalization	Basing the goodness of a rule on only a few cases.	Connie proposes a ban on alcohol after considering only its effects on alcoholics, rather than the entire population. *Always check statistics to make sure they have a generous sample size and are representative of the population.
Sweeping Generalization	Enforcing a rule even though a certain situation needs	Shelby does not allow emergency vehicles to break the speed limit when necessary because

	that rule to be bent.	speed limits apply to everyone, at all times.
		*An ethical argument is mindful of exceptions to rules.
Ignorance	Claiming that something is not true because it has not been proven.	Caitlin argues that ghosts do not exist because they have not been proven to exist, or that there is no Western Passage to the Indies because it has not been proven to exist. *This is kind of like a hasty generalization. A person must argue with the presence of facts and logic, not unreasonable assumptions.
Irrelevance (ignoratio elenchi)	Arguing a cause and effect that have absolutely no logical connection.	Ben argues for the passing of a health care bill based on the reasoning that it is good for everyone to have health care, without arguing that the actual bill will achieve that goal.
Non-sequitur	Drawing conclusions from arguments that have no logical or reasonable connections with each other.	John argues that universal health care is good, so any bill that offers universal health care is good, regardless of its ability to reasonably achieve such a goal.
		*Context is very important. If a person is arguing about a specific bill, then s/he must argue the facts of the bill; if a person is arguing about universal health care in general, then s/he must argue about that.
Red Herring	Distracting readers from the real argument and making them pay attention to a less important or irrelevant issue.	Someone asks Joe about his views on school funding, and since Joe does not really have a valid opinion on the topic, Joe brings up his patriotism and claim that all patriots need to make sure schools are funded. (In this case, "patriotism" is the red herring.) *This is much like Irrelevance. Stick to the topic at hand.
Reification	Making an abstract concept into something concrete.	The concept of faith in God is not as reasonably concrete (touchable) as things like population statistics. So, in a debate over the validity of statistics about how the population of Ohio voted in the 2004 elections, it would be wrong to introduce the concept of faith in God as a tenant of Zues' argument because the nature of the argument requires statistical facts, not theological proofs. *Be aware of the context of the argument.
		What is it requiring a person to argue? Facts? Statistics? Definitions? Ideas?
Special Pleading	Expecting special treatment of Sue's argument for whatever reason.	Sue's instructor gives her a failing grade on an assignment, and she automatically expects special treatment because of her perfect attendance, regardless of the lack of time she actually spent studying.
		*In the interest of equality and fairness, a person would want his/her argument to be treated the same way s/he would treat

		another's argument.
Straw Man	Misrepresenting an argument, attacking the argument, and then concluding that the argument has been proven wrong.	A certain politician disagrees with some of the wording of the Patriot Act and will not sign it until his concern is addressed. Alfred claims that since he will not support the passing of the Patriot Act, then he is obviously not a patriot and should be tried for treason.
		*Do not misrepresent what someone actually says, and be wary of assuming anything; disagreeing with a particular bill is not necessarily the same thing as committing treason.
tu quoque	Accusing other people of not practicing what they preach in order to avoid being held accountable for questionable/wrong decisions.	Sarah: "Why can't you stop smoking? What a disgusting habit!" Sam: "Well, I don't see you trying to defeat your addiction to alcohol!" *This usually comes as an appeal for consistency, much like the fallacy of argumentum ad antiquitam.