



Fallacies and Defective Arguments

What is a Fallacy?

A fallacy is an error in reasoning. It is a weak argument. To be more specific, a fallacy is an "argument" in which the premises given for the conclusion do not provide the needed degree of support.

Slippery Slope



A slippery slope argument is one that assumes that one bad thing will result in many others. In this fallacy, a person asserts that some event must inevitably follow from another without any argument for the inevitability of the event in question. In most cases, there are a series of steps or gradations between one event and the one in question and no reason is given as to why the intervening steps or gradations will simply be bypassed.

Also known as Camel's Nose. If you let the camel put his nose in the tent,

1. If we pass laws against fully-automatic weapons, then it won't be long before we pass laws on all weapons, and then we will begin to restrict other rights, and finally we will end up living in a communist state. Thus, we should not ban fully-automatic weapons.
2. You should never gamble. Once you start gambling, you find it hard to stop. Soon you are spending all your money on gambling, and eventually you will turn to crime to support your earnings.
3. If I make an exception for you, then I have to make an exception for everyone.
4. We have to stop the tuition increase! The

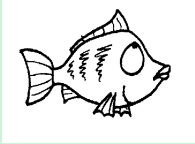
next thing you know, they'll be charging \$60,000 a semester!

5. The US shouldn't get involved militarily in other countries. Once the government sends in a few troops, it will then have to send in thousands to die.
6. You can never give anyone a break. If you do, they'll walk all over you.
7. We've got to stop them from banning pornography. Once they start banning one form of literature, they will never stop. Next thing you know, they will be burning all the books!

Red Herring

In a red herring fallacy, the speaker distracts the listeners with sensational, irrelevant material. The name of this fallacy comes from the sport of fox hunting in which a dried, smoked herring, which is red in color, is dragged across the trail of the fox to throw the hounds off the scent. Thus, a "red herring" argument distracts the audience from the issue in question.

The basic idea is to "win" an argument by leading attention away from the argument and to another topic.



"We admit that this measure is popular. But we also urge you to note that there are so many bond issues on this ballot that the whole thing is getting ridiculous."

"You know, I've begun to think that there is some merit in the Republican's tax cut plan. I suggest that you come up with something like it, because If we Democrats are going to survive as a party, we have got to show that we are as tough-minded as the Republicans, since that is what the public wants."

"You may think that he cheated on the test, but look at the poor little thing! How would he feel if you made him take the test again?"



Accused of deceptive accounting practices, some in Enron's accounting firm, Arthur Anderson, replied that their practices are the norm in all accounting firms. This claim may or may not be true, but it is a red herring because it attempts to draw fire away from Arthur Anderson and Enron and toward the larger profession of accountants.

Myth of the Mean

One teacher at the University was researching widows in Arkansas. She discovered that the average income of widows for that year was very high—how could that be? She found out that Sam Walton died that year . Including Mrs. Walton's income in the average significantly skewed the state average for that year.

Using an average to hide a problem.

Using an average in and of themselves is not necessarily bad. It is only bad when using the average leads the listeners to faulty conclusions.

1. The average depth of a stream in the mountain is six inches. (There are some really deep places in the stream and several shallow. Trusting this information could lead someone into 'deep trouble').
2. The average person makes \$32,000 a year. (The reality is there are a few really rich people and many very poor. The mean is not reflective.)
3. This community does not need aid because "the average monthly income is well over \$6,000." (In fact, a few high salaries skewed the number. In reality many families are far below the poverty line.)

Ad Hominem

Attacking the person rather than the point.

Means "to the man" or "against the man"

Three Main Types:

- **Abusive:** Instead of attacking the point, the arguer attacks the person who made the point.
- **Circumstantial:** Instead of attacking the point, the arguer points to the relationship between the person making the assertion and the person's circumstances.
- **Tu quoque:** "You too." The arguer asserts that the person does not practice what he preaches.

1. You only say that you support sustainability because you like to appear hip and trendy. (Abusive)
2. We should discount what Premier Klein says about taxation because he won't be hurt by the increase. (Circumstantial)
3. You must disregard what Senator Bob has to say, his campaign was funded by the logging industry.
4. You say I shouldn't smoke, but you smoke two packs a day. (Tu quoque)
5. In order to maintain a civil debate, I will not mention my opponent's drinking problem." (Abusive)
6. "If you weren't so stupid you would have no problem seeing my point of view."
7. "What do you know about politics? You're too young to vote!"
8. "You say the gap between the rich and poor is unacceptable, but communists also say this
9. These, they aren't patriots. They are HATE-riots and they believe in the politics of HATE-riotism. (Michael Moore in Cambridge, Mass)

NOW, CHARLTON, THAT'S WHAT I CALL AN AD HOMINEM !

We have a vice president who learns fast...so fast indeed that he invented the internet -- at the ripe old age of 12. Just last week, Vice-President Gore claimed, falsely, that children "can walk into any gun shop, any pawn shop, any gun show, anywhere in America and buy a handgun." Now I don't know what Vice President Gore wasn't inhaling, because the fact is, it's been illegal for anyone under the age of 21 to go into a gun store and buy a handgun since 1968. But I suppose that in 1968, Al Gore was too busy inventing the Internet to know the current law!

From Political Disobedience by Charlton Heston

Poisoning the Well is a type of ad hominem attack. In this fallacy, the speaker tries to discredit what a person might later claim by presenting unfavorable information about the person.

The intent is to bias the listeners against the speaker.

The phrase comes from the Middle Ages where Jews were rumored to poison the well of Christians in order to have them die of the plague. No one actually knew if wells were poisoned or if the Jews were the ones who did it, but the accusations were enough to lead to the Jews being blamed and persecuted.

Poisoning The Well

1. Don't listen to him, he's a scoundrel.
2. Before you listen to my opponent, may I remind you that he has been in jail.
3. Only someone who supports terrorism would argue against the need for these new security measures.
4. Before turning the floor over to my opponent, I ask you to remember that those who oppose my plans do not have your best interests at heart. Mike doesn't have a degree, but he does speak nicely, doesn't he.
5. Only an idiot would consider that a viable options.
6. Every logical person know that evolution is a proven fact. What was that you were going to say on this subject James?

Post Hoc Ergo Propter Hoc

Assuming that because one event follows another, it was caused by it.

The name in Latin means "after this therefore because of this".

Better pack an umbrella.

I know it is going to rain tomorrow.

I know because it rains every time I wash my car.



1. Most rapists read pornography when they were teenagers. That proves that pornography causes males to use violence toward women. (The conclusion is invalid, because there can be a correlation between two phenomena without one causing the other.)
2. I had been doing pretty poorly this season. Then my girlfriend gave me this neon laces for my spikes and I won my next three races. Those laces must be good luck...if I keep on wearing them I can't help but win!
3. Bill purchases a new PowerMac and it works fine for months. He then buys and installs a new piece of software. The next time he starts up his Mac, it freezes. Bill concludes that the software must be the cause of the freeze.
4. The Republicans pass a new tax reform law that benefits wealthy Americans. Shortly thereafter the economy takes a nosedive. The Democrats claim that the tax reform caused the economic woes and they push to get rid of it.
5. Jane gets a rather large wart on her finger. Based on a story her father told her, she cuts a potato in half, rubs it on the wart and then buries it under the light of a full moon. Over the next month her wart shrinks and eventually vanishes. Jane writes her father to tell him how right he was about the cure.

False Analogy

Comparing things that are dissimilar in some important way

1. Students are like nails. Just as nails must be hit in the head in order to make them work, so must students.
2. Government is like business, so just as business must be sensitive primarily to the bottom line, so also must government. (But the objectives of government and business are completely different, so probably they will have to meet different criteria.)
3. "Minds, like rivers, can be broad. The broader the river, the shallower it is. Therefore, the broader the mind, the shallower it is."
4. "We have pure food and drug laws; why can't we have laws to keep movie-makers from giving us filth?"
5. "Doctors are allowed to look up difficult diagnoses in their medical textbooks, so students should be able to look up tough test questions in their texts."

Non Sequitur

**Literally,
"It does not follow"**

Reasoning in which principles and observations are unrelated to each other or to the conclusion drawn.

The term is often used in everyday speech and reasoning to describe a statement in which premise and conclusion are totally unrelated but which is used as if they were.

"If I buy this I-Pod, all people will love me." However, there is no actual relation between buying an iPod and the love of all people.

1. Since thousands of American's have seen lights in the night sky, which they could not identify. The existence of life on other planets is fast becoming a certainty.
2. If we legalize marijuana, the next thing you know we'll legalize heroin, LSD, and crack cocaine.
3. If the mill were polluting the river then we would see an increase in fish deaths. And fish deaths have increased. Thus, the mill is polluting the river.
4. "Bill lives in a large building, so his apartment must be large."
5. If I am in Tokyo, I am in Japan. I am not in Tokyo. Therefore, I am not in Japan.
6. All men are human Ann is a human Therefore, Ann is a man

From Speaker of the House Newt Gingrich on why men are more suited than women to traditional military combat roles: "If combat means living in a ditch, females have biological problems staying in a ditch for 30 days because they get infections...(Moreover,) males are biologically driven to go out and hunt for giraffes." Rep. Pat Schroeder responded: "I have been working in a male culture for a very long time, and I haven't met the first one who wants to go out a hunt a giraffe."

Hasty Generalization

Drawing conclusions based on insufficient or non-representative observations.

A hasty generalization involves an over-reaction to one occurrence that grafted onto the entire group.

The size of the sample is too small to support the conclusion

People often commit Hasty Generalizations because of bias or prejudice.

1. Fred, the Australian, stole my wallet. Thus, all Australians are thieves. (Of course, we shouldn't judge all Australians on the basis of one example.)
2. I asked six of my friends what they thought of the new spending restraints and they agreed it is a good idea. The new restraints are therefore generally popular
3. A frustrated Ford owner says: "My car broke down today! Fords are worthless pieces of garbage!"
4. A concerned citizen says: "That man is an alcoholic. Liquor should be banned."
5. Smith, who is from England, decides to attend graduate school at Ohio State University. He has never been to the US before. The day after he arrives, he is walking back from an orientation session and sees two white (albino) squirrels chasing each other around a tree. In his next letter home, he tells his family that American squirrels are white.
6. Sam is riding her bike in her home town in Maine, minding her own business. A station wagon comes up behind her and the driver starts beeping his horn and then tries to force her off the road. As he goes by, the driver yells "get on the sidewalk where you belong!" Sam sees that the car has

Either –or–Thinking False Dilemma

Framing choices
so that listeners think
that they have only two options

1. Anybody who loves this country should be supporting the Attorney General's actions. Those who criticize the Attorney General are really on the side of terror.
2. Either you're for me or against me. America: love it or leave it.
3. Senator Jill: "We'll have to cut education funding this year."
Senator Bill: "Why?"
Senator Jill: "Well, either we cut the social programs or we live with a huge deficit and we can't live with the deficit."

WHAT HAPPENED TO THE OTHER OPTIONS?

You are either with us or with the terrorists.

President George W. Bush

Weasel Wording

Words that are ambiguous and not supported by facts. They are typically used to create an illusion of clear, direct communication. The deliberate imprecision is a deliberate attempt to mislead the listeners or readers into believing statements for which sources are not readily available.

The expression comes from the egg-eating habits of weasels. After a weasel has sucked an egg, it will look intact to the observer, while actually being empty. Similarly, weasel words appear to be intact but are actually empty upon analysis.

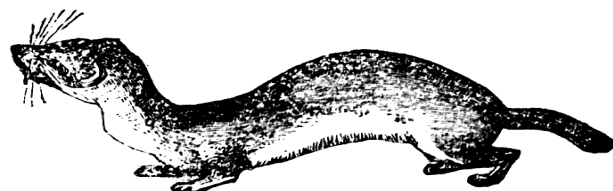
"... is now 20% cheaper"
20% cheaper than what?

"There is more goodness in ..."
How is this goodness measured
and of what does it consist?

"More people than ever are using ..."
What does that mean in numbers?

Some people say

A president may not legally conduct a war without a declaration of Congress. So, various Presidents have conducted "police actions", "armed incursions", "protective reaction strikes", "pacification", "safeguarding American interests,"



Appeal to Numbers and Appeal to Popularity

This fallacy attempts to prove something by showing how many people think that it's true.

Regardless of how many people believe something is true or right, that does not make it true or right.

"At least 70% of all Americans support restrictions on access to abortions." Well, maybe 70% of Americans are wrong!

9 out of 10 of my constituents oppose the financial rescue package, therefore it is a bad idea.

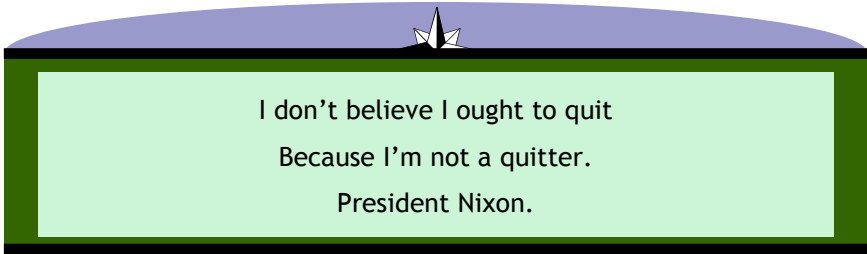
9 out of 10 of my fellow congressmen favor the financial rescue package, therefore it is a good idea.

Most Americans hold that the Vietnam War was morally wrong. Therefore, the Vietnam War was morally wrong.

Since most people in the world eat meat, there are no ethical issues involved in meat-eating.

Since 88% of the people polled believed in UFOs, they must exist.

Circular Reasoning—Begging the Question



I don't believe I ought to quit
Because I'm not a quitter.
President Nixon.

"That begs the question" is an appropriate reply when a circular argument is used

This fallacy assumes as decided what has actually not been proved. When a proposition is used to support itself, it is said to be circular.

Supporting a statement by simply repeating the statement in different or stronger terms.

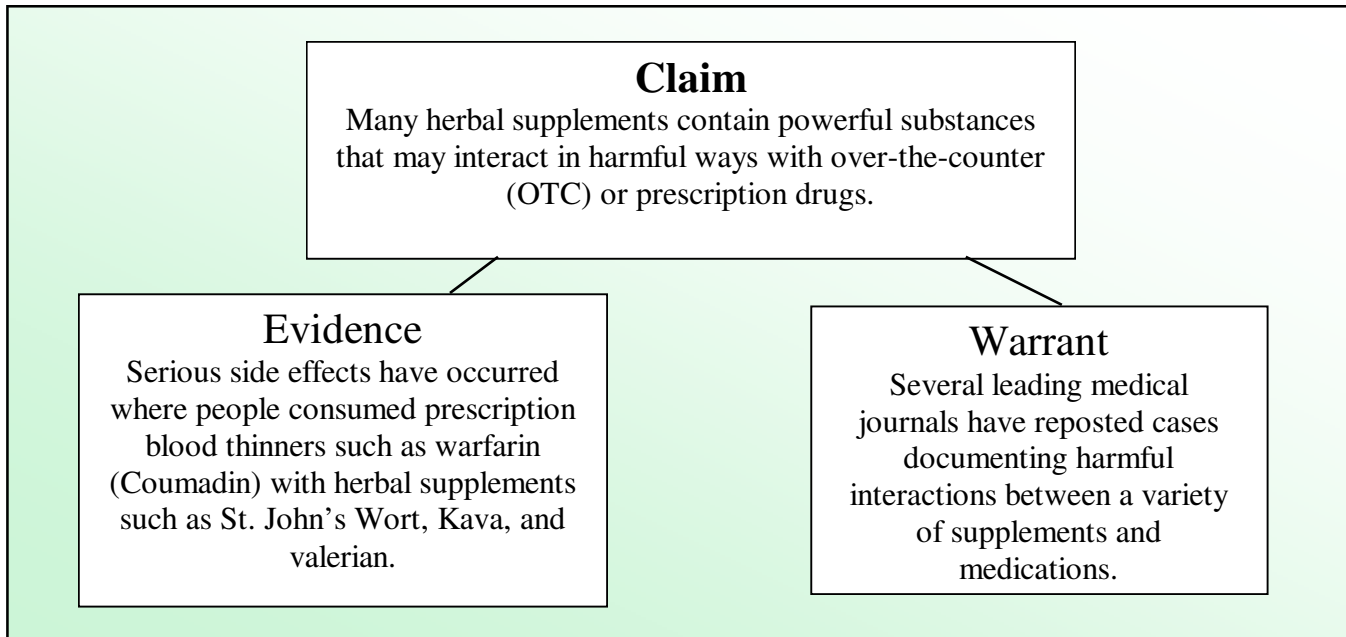
1. Since I'm not lying, it follows that I'm telling the truth.
2. Marijuana is illegal in every state in the nation. And we all know that you shouldn't violate the law. Since smoking pot is illegal, you shouldn't smoke pot. And since you shouldn't smoke pot, it is the duty of the government to stop people from smoking it, which is why marijuana is illegal!
3. The fact that we believe pornography should be legal means that it is a valid form of free expression. And since it's free expression, it shouldn't be banned.
4. All intentional acts of killing human beings are morally wrong. The death penalty is an intentional act of killing a human being. Therefore, The death penalty is morally wrong.
5. Richardson is the most successful mayor the town has ever had because he's the best mayor of our history."
6. "Why am I the boss? It's because I call the shots around here."
7. "Of course I had a reason, or I wouldn't have done it."

SO WHAT MAKES A GOOD ARGUMENT?

A Claim--- A statement that you are saying is true. It answers, “What are you trying to prove?”

Evidence—Supporting material that provides grounds for the belief. Could be examples, narratives, testimony, facts, or statistics. Evidence makes the claim more acceptable.

Warrants—Link the claim and the evidence. Warrants show why the link between the claim and the evidence is “warranted” or justified.



References

- A List Of Fallacious Arguments (n.d.). Retrieved February 20, 2008 from <http://www.don-lindsay-archive.org/skeptic/arguments.html#hominem>
- Argumentum ad populum. Retrieved February 10, 2009 from http://en.wikipedia.org/wiki/Argumentum_ad_populum
- Begging the Question. Retrieved February 22, 2009. From http://en.wikipedia.org/wiki/Begging_the_question.
- Fallacies. Retrieved February 22, 2009 from <http://www.clt.astate.edu/composition/fallacies.htm>
- Fallacy Files (n.d.). Retrieved February 20, 2008 from <http://www.fallacyfiles.org/redherrf.html>
- Logical Fallacies and the Art of Debate (n.d.). Retrieved February 20, 2008 from <http://www.csun.edu/~dgw61315/fallacies.html#Non%20sequitur>
- The Nizkor Project Fallacies. (n.d.). Retrieved February 20, 2008 from <http://www.nizkor.org/features/fallacies/index.html#index>
- Nationmater.com. Retrieved February 9, 2009 from <http://www.nationmaster.com/encyclopedia/Ad-hominem>.
- Nonsequitur Logic. Retrieved February 22, 2009. From [http://en.wikipedia.org/wiki/Non_sequitur_\(logic\)](http://en.wikipedia.org/wiki/Non_sequitur_(logic))
- Mr. Hagan. (November 27 2002). Circular Reasoning. Retrieved February 9, 2009 from <http://ksuweb.kennesaw.edu/~shagin/logfal-pbc-circular.htm>.
- Osborn and Osborn, *Public Speaking* (7th edition)
- O’Hair, D. Stewart, R. & Rubenstein, H. (2004). *A Speaker’s Guidebook Text and Reference Second Edition*. Boston:Bedford.
- Rachel Carson Quote from a speech to the Women’s National Press Club on December 5, 1962. Quoted on page 308 in Paul Brooks, Rachel Carson: The Writer at Work, Sierra Club Books, 1972-1989.
- Sprague, J. & Stuart, D. (005). *A Speakers Handbook*. Thomas Wadsworth: Australia.
- Steven’s guide to logical fallacies. (n.d.). Retrieved February 20, 2008 from <http://www.onegoodmove.org/fallacy/toc.htm>
- This handout has been cut and pasted from the above sources.