

# The Nizkor Project

## Fallacy: Straw Man

### Description of Straw Man

The Straw Man fallacy is committed when a person simply ignores a person's actual position and substitutes a distorted, exaggerated or misrepresented version of that position. This sort of "reasoning" has the following pattern:

1. Person A has position X.
2. Person B presents position Y (which is a distorted version of X).
3. Person B attacks position Y.
4. Therefore X is false/incorrect/flawed.

This sort of "reasoning" is fallacious because attacking a distorted version of a position simply does not constitute an attack on the position itself. One might as well expect an attack on a poor drawing of a person to hurt the person.

### Examples of Straw Man

1. Prof. Jones: "The university just cut our yearly budget by \$10,000."  
Prof. Smith: "What are we going to do?"  
Prof. Brown: "I think we should eliminate one of the teaching assistant positions. That would take care of it."  
Prof. Jones: "We could reduce our scheduled raises instead."  
Prof. Brown: "I can't understand why you want to bleed us dry like that, Jones."
2. "Senator Jones says that we should not fund the attack submarine program. I disagree entirely. I can't understand why he wants to leave us defenseless like that."
3. Bill and Jill are arguing about cleaning out their closets:  
Jill: "We should clean out the closets. They are getting a bit messy."  
Bill: "Why, we just went through those closets last year. Do we have to clean them out everyday?"  
Jill: "I never said anything about cleaning them out every day. You just want to keep all your junk forever, which is just ridiculous."

[ Previous | | ]

# The Nizkor Project

## Fallacy: Slippery Slope

Also Known as: The Camel's Nose.

### Description of Slippery Slope

The Slippery Slope is a fallacy in which 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. This "argument" has the following form:

1. Event X has occurred (or will or might occur).
2. Therefore event Y will inevitably happen.

This sort of "reasoning" is fallacious because there is no reason to believe that one event must inevitably follow from another without an argument for such a claim. This is especially clear in cases in which there is a significant number of steps or gradations between one event and another.

### Examples of Slippery Slope

1. "We have to stop the tuition increase! The next thing you know, they'll be charging \$40,000 a semester!"
2. "The US shouldn't get involved militarily in other countries. Once the government sends in a few troops, it will then send in thousands to die."
3. "You can never give anyone a break. If you do, they'll walk all over you."
4. "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!"

[ | | ]

© The Nizkor Project, 1991-2009

This site is intended for educational purposes to teach about the Holocaust and to combat hatred. Any

# The Nizkor Project

## Fallacy: Post Hoc

Also Known as: Post Hoc Ergo Propter Hoc, False Cause, Questionable Cause, Confusing Coincidental Relationships With Causes

### Description of Post Hoc

A Post Hoc is a fallacy with the following form:

1. A occurs before B.
2. Therefore A is the cause of B.

The Post Hoc fallacy derives its name from the Latin phrase "Post hoc, ergo propter hoc." This has been traditionally interpreted as "After this, therefore because of this." This fallacy is committed when it is concluded that one event causes another simply because the proposed cause occurred before the proposed effect. More formally, the fallacy involves concluding that A causes or caused B because A occurs before B and there is not sufficient evidence to actually warrant such a claim.

It is evident in many cases that the mere fact that A occurs before B in no way indicates a causal relationship. For example, suppose Jill, who is in London, sneezed at the exact same time an earthquake started in California. It would clearly be irrational to arrest Jill for starting a natural disaster, since there is no reason to suspect any causal connection between the two events. While such cases are quite obvious, the Post Hoc fallacy is fairly common because there are cases in which there might be some connection between the events. For example, a person who has her computer crash after she installs a new piece of software would probably suspect that the software was to blame. If she simply concluded that the software caused the crash because it was installed before the crash she would be committing the Post Hoc fallacy. In such cases the fallacy would be committed because the evidence provided fails to justify acceptance of the causal claim. It is even theoretically possible for the fallacy to be committed when A really does cause B, provided that the "evidence" given consists only of the claim that A occurred before B. The key to the Post Hoc fallacy is not that there is no causal connection between A and B. It is that adequate evidence has not been provided for a claim that A causes B. Thus, Post Hoc resembles a Hasty Generalization in that it involves making a leap to an unwarranted conclusion. In the case of the Post Hoc fallacy, that leap is to a causal claim instead of a general proposition.

Not surprisingly, many superstitions are probably based on Post Hoc reasoning. For example, suppose a person buys a good luck charm, does well on his exam, and then concludes that the good luck charm caused him to do well. This person would have fallen victim to the Post Hoc fallacy. This is not to say that all "superstitions" have no basis at all. For example, some "folk cures" have actually been found to work.

Post Hoc fallacies are typically committed because people are simply not careful enough when they reason. Leaping to a causal conclusion is always easier and faster than actually investigating the phenomenon. However, such leaps tend to land far from the truth of the matter. Because Post Hoc fallacies are committed by drawing an unjustified causal conclusion, the key to avoiding them is careful investigation. While it is true that causes precede effects (outside of Star Trek, anyways), it is not true that precedence makes something a cause of something else. Because of this, a causal investigation should begin with finding what occurs before the effect in question, but it should not end there.

### Examples of Post Hoc

1. 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!
2. 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.
3. Joan is scratched by a cat while visiting her friend. Two days later she comes down with a fever. Joan concludes that the cat's scratch must be the cause of her illness.
4. The Republicans pass a new tax reform law that benefits wealthy Americans. Shortly thereafter the economy takes a nose dive. The Democrats claim that the the tax reform caused the economic woes and they push to get rid of it.
5. The picture on Jim's old TV set goes out of focus. Jim goes over and strikes the TV soundly on the side and the picture goes back into focus. Jim tells his friend that hitting the TV fixed it.
6. 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.

[ | | ]  
\* \* \*

© The Nizkor Project, 1991-2009

This site is intended for educational purposes to teach about the Holocaust and to combat hatred. Any statements or excerpts found on this site are for educational purposes only.

As part of these educational purposes, Nizkor may include on this website materials, such as excerpts from the writings of racists and antisemites. Far from approving these writings, Nizkor condemns them and provides them so that its readers can learn the nature and extent of hate and antisemitic discourse. Nizkor urges the readers of these pages to condemn racist and hate speech in all of its forms and manifestations.

# The Nizkor Project

## Fallacy: Red Herring

Also Known as: Smoke Screen, Wild Goose Chase.

### Description of Red Herring

A Red Herring is a fallacy in which an irrelevant topic is presented in order to divert attention from the original issue. The basic idea is to "win" an argument by leading attention away from the argument and to another topic. This sort of "reasoning" has the following form:

1. Topic A is under discussion.
2. Topic B is introduced under the guise of being relevant to topic A (when topic B is actually not relevant to topic A).
3. Topic A is abandoned.

This sort of "reasoning" is fallacious because merely changing the topic of discussion hardly counts as an argument against a claim.

### Examples of Red Herring

- "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."

- "Argument" for a tax cut:

"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."

- "Argument" for making grad school requirements stricter:

"I think there is great merit in making the requirements stricter for the graduate students. I recommend that you support it, too. After all, we are in a budget crisis and we do not want our salaries affected."

[ | | ]

# The Nizkor Project

## Fallacy: Begging the Question

Also Known as: Circular Reasoning, Reasoning in a Circle, Petitio Principii.

### Description of Begging the Question

Begging the Question is a fallacy in which the premises include the claim that the conclusion is true or (directly or indirectly) assume that the conclusion is true. This sort of "reasoning" typically has the following form.

1. Premises in which the truth of the conclusion is claimed or the truth of the conclusion is assumed (either directly or indirectly).
2. Claim C (the conclusion) is true.

This sort of "reasoning" is fallacious because simply assuming that the conclusion is true (directly or indirectly) in the premises does not constitute evidence for that conclusion. Obviously, simply assuming a claim is true does not serve as evidence for that claim. This is especially clear in particularly blatant cases: "X is true. The evidence for this claim is that X is true."

Some cases of question begging are fairly blatant, while others can be extremely subtle.

### Examples of Begging the Question

1. Bill: "God must exist."  
Jill: "How do you know."  
Bill: "Because the Bible says so."  
Jill: "Why should I believe the Bible?"  
Bill: "Because the Bible was written by God."
2. "If such actions were not illegal, then they would not be prohibited by the law."
3. "The belief in God is universal. After all, everyone believes in God."
4. Interviewer: "Your resume looks impressive but I need another reference."  
Bill: "Jill can give me a good reference."  
Interviewer: "Good. But how do I know that Jill is trustworthy?"  
Bill: "Certainly. I can vouch for her."

[ Example | | ]

# The Nizkor Project

## Fallacy: Ad Hominem

### Description of Ad Hominem

Translated from Latin to English, "Ad Hominem" means "against the man" or "against the person."

An Ad Hominem is a general category of fallacies in which a claim or argument is rejected on the basis of some irrelevant fact about the author of or the person presenting the claim or argument. Typically, this fallacy involves two steps. First, an attack against the character of person making the claim, her circumstances, or her actions is made (or the character, circumstances, or actions of the person reporting the claim). Second, this attack is taken to be evidence against the claim or argument the person in question is making (or presenting). This type of "argument" has the following form:

1. Person A makes claim X.
2. Person B makes an attack on person A.
3. Therefore A's claim is false.

The reason why an Ad Hominem (of any kind) is a fallacy is that the character, circumstances, or actions of a person do not (in most cases) have a bearing on the truth or falsity of the claim being made (or the quality of the argument being made).

### Example of Ad Hominem

1. Bill: "I believe that abortion is morally wrong."  
Dave: "Of course you would say that, you're a priest."  
Bill: "What about the arguments I gave to support my position?"  
Dave: "Those don't count. Like I said, you're a priest, so you have to say that abortion is wrong. Further, you are just a lackey to the Pope, so I can't believe what you say."

[ | ]

© The Nizkor Project, 1991-2009

This site is intended for educational purposes to teach about the Holocaust and to combat hatred. Any statements or excerpts found on this site are for educational purposes only.

As part of these educational purposes, Nizkor may include on this website materials, such as excerpts from the writings of racists and antisemites. Far from approving these writings, Nizkor condemns them and provides them so that its readers can learn the nature and extent of hate and antisemitic discourse. Nizkor urges the readers of these pages to condemn racist and hate speech in all of its forms and manifestations.

# The Nizkor Project

## Fallacy: Bandwagon

Also Known as: Peer Pressure.

### Description of Bandwagon

The Bandwagon is a fallacy in which a threat of rejection by one's peers (or peer pressure) is substituted for evidence in an "argument." This line of "reasoning" has the following form:

1. Person P is pressured by his/her peers or threatened with rejection.
2. Therefore person P's claim X is false.

This line of "reasoning" is fallacious because peer pressure and threat of rejection do not constitute evidence for rejecting a claim. This is especially clear in the following example:

Joe: "Bill, I know you think that  $1+1=2$ . But we don't accept that sort of thing in our group."

Bill: "I was just joking. Of course I don't believe that."

It is clear that the pressure from Bill's group has no bearing on the truth of the claim that  $1+1=2$ .

It should be noted that loyalty to a group and the need to belong can give people very strong reasons to conform to the views and positions of those groups. Further, from a practical standpoint we must often compromise our beliefs in order to belong to groups. However, this feeling of loyalty or the need to belong simply do not constitute evidence for a claim.

### Examples of Bandwagon

1. Bill says that he likes the idea that people should work for their welfare when they can. His friends laugh at him, accuse him of fascist leanings, and threaten to ostracize him from their group. He decides to recant and abandon his position to avoid rejection.
2. Bill: "I like classical music and I think it is of higher quality than most modern music."  
Jill: "That stuff is for old people."  
Dave: "Yeah, only real woosies listen to that crap. Besides, Anthrax rules! It Rules!"  
Bill: "Well, I don't really like it that much. Anthrax is much better."
3. Bill thinks that welfare is needed in some cases. His friends in the Young Republicans taunt him every time he makes his views known. He accepts their views in order to avoid rejection.



# The Nizkor Project

## Fallacy: Confusing Cause and Effect

Also Known as:

### Description of Confusing Cause and Effect

Confusing Cause and Effect is a fallacy that has the following general form:

1. A and B regularly occur together.
2. Therefore A is the cause of B.

This fallacy requires that there is not, in fact, a common cause that actually causes both A and B.

This fallacy is committed when a person assumes that one event must cause another just because the events occur together. More formally, this fallacy involves drawing the conclusion that A is the cause of B simply because A and B are in regular conjunction (and there is not a common cause that is actually the cause of A and B). The mistake being made is that the causal conclusion is being drawn without adequate justification.

In some cases it will be evident that the fallacy is being committed. For example, a person might claim that an illness was caused by a person getting a fever. In this case, it would be quite clear that the fever was caused by illness and not the other way around. In other cases, the fallacy is not always evident. One factor that makes causal reasoning quite difficult is that it is not always evident what is the cause and what is the effect. For example, a problem child might be the cause of the parents being short tempered or the short temper of the parents might be the cause of the child being problematic. The difficulty is increased by the fact that some situations might involve feedback. For example, the parents' temper might cause the child to become problematic and the child's behavior could worsen the parents' temper. In such cases it could be rather difficult to sort out what caused what in the first place.

In order to determine that the fallacy has been committed, it must be shown that the causal conclusion has not been adequately supported and that the person committing the fallacy has confused the actual cause with the effect. Showing that the fallacy has been committed will typically involve determining the actual cause and the actual effect. In some cases, as noted above, this can be quite easy. In other cases it will be difficult. In some cases, it might be almost impossible. Another thing that makes causal reasoning difficult is that people often have very different conceptions of cause and, in some cases, the issues are clouded by emotions and ideologies. For example, people often claim violence on TV and in movies must be censored because it causes people to like violence. Other people claim that there is violence on TV and in movies because people like violence. In this case, it is not obvious what the cause really is and the issue is clouded by the fact that emotions often run high on this issue.

While causal reasoning can be difficult, many errors can be avoided with due care and careful testing procedures. This is due to the fact that the fallacy arises because the conclusion is drawn without due care. One way to avoid the fallacy is to pay careful attention to the temporal sequence of events. Since (outside of Star Trek), effects do not generally precede their causes, if A occurs after B, then A cannot be the cause of B. However, these methods go beyond the scope of this program.

All causal fallacies involve an error in causal reasoning. However, this fallacy differs from the other causal fallacies in terms of the error in reasoning being made. In the case of a fallacy, the error is that a person is accepting that A is the cause of B simply because A occurs before B. In the case of the Fallacy of  A is taken to be the cause of B when there is, in fact, a third factor that is the cause of both A and B. For more information, see the relevant entries in this program.

### Examples of Confusing Cause and Effect

1. Bill and Joe are having a debate about music and moral decay:

Bill: "It seems clear to me that this new music is causing the youth to become corrupt."

Joe: "What do you mean?"

Bill: "This rap stuff is always telling the kids to kill cops, do drugs, and abuse women. That is all bad and the kids today shouldn't be doing that sort of stuff. We ought to ban that music!"

Joe: "So, you think that getting rid of the rap music would solve the drug, violence and sexism problems in the US?"

Bill: "Well, it wouldn't get rid of it all, but it would take care of a lot of it."

Joe: "Don't you think that most of the rap singers sing about that sort of stuff because that is what is really going on these days? I mean, people often sing about the conditions of their time, just like the people did in the sixties. But then I suppose that you think that people were against the war and into drugs just because they listened to Dylan and Baez."

Bill: "Well..."

Joe: "Well, it seems to me that the main cause of the content of the rap music is the pre-existing social conditions. If there weren't all these problems, the rap singers probably wouldn't be singing about them. I also think that if the social conditions were great, kids could listen to the music all day and not be affected."

Bill: "Well, I still think the rap music causes the problems. You can't argue against the fact that social ills really picked up at the same time rap music got started."

2. It is claimed by some people that severe illness is caused by depression and anger. After all, people who are severely ill are very often depressed and angry. Thus, it follows that the cause of severe illness actually is the depression and anger. So, a good and cheerful attitude is key to staying healthy.
3. Bill sets out several plates with bread on them. After a couple days, he notices that the bread has mold growing all over it. Bill concludes that the mold was produced by the bread going bad. When Bill tells his mother about his experiment, she tells him that the mold was the cause of the bread going bad and that he better clean up the mess if he wants to get his allowance this week.