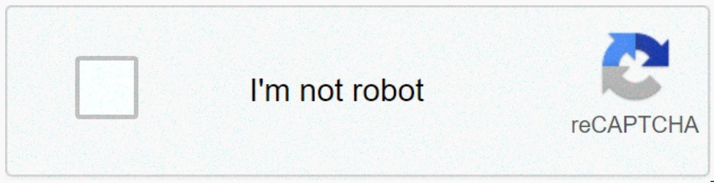

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Appeal to common belief fallacy examples

Disciplines > argument > fallacies > appeal to common faith Description | Discussion | Example | See also Description If something is believed to be true by a lot of people, then it must be true. One variant is where the likelihood of truth is assessed by the number of people who make the claim (especially when you can see who is voting for and who is voting against the idea). Example Oh come on, everyone says this is the right thing to do. Your family likes the car... In one study, 8 out of 10 doctors agree that this drug is dangerous. Discussion When we are unsure of something, we turn to other people and assume that they know what they are doing. We do the same with convictions. The more other people think something, the more likely we will be to accept that it is true (especially if we tend to black and white thinking). Classification Appeal, Assumptive, Deductive, Relevance Also known as Appeal to Faith, Appeal to Majority, Ad Populum See also appeal to common practice, Accessibility Heuristic, Beliefs, Normative Social Influence (For definitions of other logic terminology, click here) Ad Hominem (Personal attack or attack the person) The fallacy of responding to an opponent's argument by changing the subject to the person who gave the subject that introduces the false assumption that a person of this kind cannot provide an argument worth considering. One can deflect attention from the one who argues the position by moving to discussion of the person who argues personality, character, associates, motives, intentions, qualifications, and so on. Example: Ignore what Professor Schiff says about the origins of the Old Testament. I happen to know that Schiff is an atheist. When we attack the person, we ignore the content of the argument. But an argument is a relationship between premises and conclusion, and the soundness of the argument (or lack of solidity) is entirely independent of who makes the argument. There is nothing to what Smith says about the Nazi death camps; just remember that his family included prominent Nazis may sound convincing, but this refusal to look at Smith's evidence is a refusal to assess the solidity of the argument. (After all, Smith can be ashamed of her relatives and can confirm the existence of death camps against anti-Semitic opponents who claim that the camps are a hoax.) Given this definition, fallacy is limited to cases where there is an opponent and where one reacts to that opponent. Recognizing the fallacy of attacking the person does not deny or conflict with the legitimate need to assess the source of information that is put into an argument. Consider these two cases: When thinking about Green's conclusions about human impact on the Amazon basin, don't accept Green's claim that the region has only two People. Green used an encyclopedia from 1955, 1955, bought in a junk shop. Don't accept Johnson's productivity predictions in her report. I work at the desk next to her and I heard her say she couldn't get the research done on time, so she just made up new numbers after looking at last year's report. These responses to Green and Johnson are entirely appropriate as they call into question arguments by questioning sources of information in the arguments. They point to flaws in the argument by discussing sources of specific premises, not dismissing the whole argument by appealing to facts about Green and Johnson. Similarly, it is always relevant to discuss a person's credibility or expertise if we evaluate testimony. A particular case of Ad Hominem is false refutation, where an argument or position is rejected by quoting inconsistencies between the speaker's words and actions. Inconsistency is a fallacy when the discrepancy is between two parts of an argument, but inconsistency between words and actions can be due to understandable moral weakness or a legitimate change in one's position. Example How can you advise me to wait until I get older? I happen to know you were pretty wild at my age. Example: How can you tell me not to smoke? You smoke two packs a day. Example: How can support a crackdown on underage drinking? I remember at the time when you thought such policies were a waste of money. Yes, and the first speaker may regret that wild youth and can offer you hard-earned advice that is worth your consideration. The smoker who advises against you smoking may have tried to quit many times and warns you about what you face if you make the mistake of starting. The third speaker can now understand, through personal experience, that drinking among minors is a serious social problem, and has revised their thoughts on the subject. The Latin name for false refutation is Ad Hominem Tu Quoque. Informally, it is known as You Too Fallacy. Ambiguity As with many of the fallacies, ambiguity is only a fallacy if we first establish that it takes place within a context of reasoning! People make ambiguous statements all the time, but it doesn't have the status of a fallacy unless they're involved in reasoning (in leading someone to a conclusion). Fallacy requires the following: A word or phrase is used that has two or more different meanings. We can say rewriting both, that is, we can say how the two uses are different. We do not see which of the meanings are meant by the speaker. When we cannot pin down the meaning of a premise because of its ambiguous wording, we must suspend the judgment on its truth, which makes the argument unhealthy. Example: Why are you against my decision? You didn't protest at the time that I did almost the same thing. we cannot tell what was done or when (the speaker could lead us to a number of things), we do not what the decision is compared to, and the attempt to argue by analogy is undercut by the fallacy of ambiguity. When the various meanings are generated by a punctuation error or error in grammatical construction, fallacy is technically known as the fallacy of amphiboly. Warning: There is no standard agreement on where to draw the line between ambiguity and ambiguity. Many logicians treat the fallacy of ambiguity more like the way I've dealt with the fallacy of ambiguity. Anecdotal evidence By generalization, the fallacy of drawing on limited personal experience or a living example as a basis for generalization. The one who argues places too much confidence in the example or personal experience, even if it is not really representative. As the sample size will be insufficient and because the sample itself will be chosen to confirm the intended conclusion, anecdotal evidence makes generalising unhealthy. Example: I don't care what the experts say. Someone who lives in my hometown burned to death in a car accident because he couldn't get out of his seatbelt. Anyone who wears a seatbelt is just asking for trouble. Real Example (NY Times) - A response to an essay on the value of college majors that promote critical thinking: In 2006, I graduated from a respected 4 year university with a degree in political science, weight middle eastern affairs. After failing to find a job in my field, and many years working in a bank, I am back in school studying engineering. So much for critical thinking, no money in it. NY Times, online comment by gitrjoda, March 5, 2011 Confirms the resulting invalid argument pattern in which the second premise supports the resulting of a conditional. This pattern is erroneous. Argument form: 1. If A then B 2. B A Example: 1. If Sam is tired, then he will not graduate. 2. Sam failed the exam. Sam was tired. It is invalid because there may be another reason why the predecessor fails (in this example, perhaps Sam was well rested but did not study) Appeal to common faith Any argument that defends a faith by pointing out how many other people have the same beliefs. But consensus doesn't do anything. Just remember that even today, a large number of people remain unaware of basic science and believe that earth is the center of the universe. The fact that most Americans believe in angels doesn't make angels real; the fact that most Americans believe that JFK was a great president did not prove that he was. There is only one subtle difference between this fallacy and appeal to general practice. Appeal to common practice (or wagon fallacy, or fallacy of thoughtless conformity) Any argument that defends or recommends a behavior by pointing out how many other people have the same Remember when you said to your mother, but I have to have it! All the other children have She probably replied: If all the other kids jumped off a bridge, would you do it too? Just because a large number of people do something is not very good proof that you should too. Real Example: (Reader's Digest, October 2002) BRING HOME AMERICA's #1 DVD There is only one subtle difference between this fallacy and appeal to common belief. Common practice is an appeal to people's behavior, while common belief is an appeal to their opinions. The following ad is not a fallacy of appeal to general practice: Japanese Steak House & Sushi Bar The Best Tasting Show In Town 2001 Diner's Choice Award Best Japanese MSP Magazine Everyday Sushi Bar Buffet $2795 This advertisement doesn't tell us to patronize the spot because it's popular. Instead, it tells us to go there because an authority (MSP Magazine) says it is the area's best Japanese restaurant. Appeal to Fear, Appeal to The Force (Scare Tactics) An argument in which a strong feeling, in this case fear of what will happen if we disagree, is offered by claims as a reason to agree. Basically, says the one who claims Agree with me or else something bad will happen to you. Example: How can you say that Bill Clinton was a sleaze? Remind me of it next time you want to borrow my car! (There is no correlation between the two things, and the threat of no car being used to force agreement.) Keep in mind that fear can be a good reason to do something. I floss my teeth because I'm afraid that not doing so will lead to gum disease. But there is a real and pre-existing relationship between these things. But fear itself cannot be a reason in the necessary kind of evidence: fear cannot be a reason to agree with anyone. In fallacy, the claim creates a threat to force agreement in which the claimer has no legitimate right to do so. Real Example: Dr. Ned Buyukmihci raised questions about how animals were used in research at the University of California, Davis. He received a written statement from C. A. Hjerpe, Director of the Veterinary Medical Teaching Hospital, where Hjerpe wrote, one of the best arguments against your position is that 22 members of the veterinary staff are hunters. Do you want to antagonize all these people, and for what useful purpose? Wake up and smell the coffee. Here, Hjerpe used a threat to try to get Buyukmihci to accept prevailing views. Real Example (from the Star Tribune, December 3, 2003): In a surprising move that would reverse a nearly century-old death penalty ban in Minnesota, Gov. Tim Pawlenty vowed Tuesday to push for the restoration of the death penalty after learning that the suspect in Dru Sjodin's abduction is a repeat sex offender. As a Minnesotan, as governor, as the parent of two young daughters . . . I've had it with sexual predators and people who repeat offenders, Pawlenty said at the State Capitol. I'm sick of it. In certain cases of murder or attempted murder, he said, I support the death penalty. ANALYSIS: Note that Pawlenty requires the death penalty to protect his two daughters, based on the mere arrest of a suspect who has not yet been charged with a crime. There is no reason to believe that the death penalty will protect his daughters, or anyone else, since sexual predators cannot be punished with death anywhere in the United States. Pawlenty is trying to gain political support for himself by scaring people. The Latin name for this fallacy is Argumentum Ad Baculum. Appeal for Good Intentions An argument that foolishly assumes that good intentions excuse all behavior. It often takes shape, but he/she meant well. But as the saying goes, the road to hell is paved with good intentions. Example: I just can't believe our government knew about Nazi death camps and did nothing about it. FDR must have had a good reason for it. A variation of that is the foolish assumption that a good person can neither do nor approve of anything bad: Brutus is one of the nicest people I've ever met, so it just can't be right that he beats his kids! Real example: Cameron Helder, father of domestic terrorist Lucas Helder, made this statement about his son: I really want you to know that Luke is not a dangerous person, Cameron Helder said, choking back tears. I think he's just trying to make a statement about how our government is governed. I think Luke wants people to listen to his ideas and not enough people hear him and he thinks this can help. In other words, he blew up six people, but he meant it well. (To read the article and get more details, click here.) Appeal to Ignorance (Shifting the Burden of Proof) Being ignorant is not a fallacy. We're all ignorant of a lot of things. The appeal of ignorance or argument from ignorance is a particular case of false dilemma. The one who claims that each claim is either known as true or known as false, overlooking the agnostic attitude that we sometimes do not know whether a particular claim is true or false! The one who claims does not clarify the assumption, but it is implicit in the argument, which assumes a premise that acknowledges ignorance of the issue: I do not know that my position is false. (Usually in something like this formulation: You have not proven me wrong or there is no evidence that I am wrong or You may be wrong or even No one knows about this.) From this realization of ignorance, the claimer draws the conclusion that their position on the issue is correct! Example: No one was there when the dinosaurs roamed the earth. The researchers don't know if there were people nearby. So we should accept the notion that humans and dinosaurs once coexisted. By this reasoning, researchers do not know that the virus causes colds. Does it prove that black magic causes them? This overlooks the middle ground that one position may be a better hypothesis than another. Viewed from a different angle, this fallacy lays the burden of proof. When a question is discussed, someone who wants to defend the truth of a claim must have some evidence for it. You can't prove your side by just knocking down the other side. (Remember: You can both be wrong if there is a third alternative.) Don't confuse arguing a claim with the legal standard for innocents until proven guilty, where the burden of proof is on the prosecution and where both ignorance and knocking down the prosecution argument is enough to make the person not guilty. Ignorance is sometimes combined with wishful thinking, which in the popular adage, What You Do Not Know, cannot hurt you. Unfortunately, it can. True example: Ignore gloomy statistics. Remember, statistics about people in general say nothing about your odds as a unique person. And the statistics the doctor cites could simply be wrong. So if you are sick, avoid the possibility of depressing yourself and your immune system by listening to negatives. (New Woman Magazine, March 1990) Analysis: The author of the article wants us to feel better about ourselves, and asks us to treat relevant data as irrelevant so we can proceed in ignorance, believing what we want to believe about our disease. Unfortunately, what you don't know can hurt you. Appeal to Shame An argument in which a strong feeling, in this case pity, is offered by claims as a reason to agree. Most often, the claimer warns us that dissent will bring damage to claims. (How can you say I did poorly on this exam, Dr. Watson? You know that if I fail this course I will have to drop out of school!) Occasionally we are asked to agree so that the damage won't surpass some third party, as in a fake charity appeal that tells us that young children will starve to death if we don't contribute (when the money really comes to line the pockets of the argumentative). Shame can be a good reason to do something (such as giving to legitimate charity). This only works if we already see that there is a real and pre-existing relationship between our actions and harm to others. (You should not burn the leaves. Don't you know that by burning them you can give your neighbor an asthma attack?) But shame can't be a reason in the sense of evidence, as a reason to agree with someone. So we have a fallacy of appeal to pity in one of two situations: (a) we are expected to believe something based on pity, or (b) we are asked to do something where it is doubtful that a real and pre-existing relationship binds our pity to the choice of what to do. Real example: In December 2001, Richard Reid to try to detonate explosively on a one over the Atlantic Ocean. His father responded with this statement to the press: Please don't hate my son. Look at the terrible childhood he had and the ruined home he came from. Every time he needed me, I wasn't going to find. I was locked up, said Robin Reid, who spent a total of 18 years in prison for such offenses as burglary and car theft. With that kind of childhood, what kind of defense could he put up against crazy religious fanatics leading him astray? But our pity for Richard Reid is not a good reason to excuse his behaviour, which is what Robin Reid asks us to do. The Latin name for this fallacy is Ad Misericordiam. Appeal to Tradition Any argument that defends a behavior or choice by pointing out that behavior or choice is a long-standing practice. Unfortunately, many foolish and destructive behaviors are also very traditional, such as slavery, forced prostitution, and punishing children by hitting them with belts. For an excellent example of how the tradition is used to justify child abuse, click here. This fallacy is very common in advertising, as in this simple example: (Reader's Digest, March, 1999, p. 15) UNCHANGED SINCE 1899 The fact that this brand has been made in the same way for over a hundred years is no need to buy it. There are many brands that have existed less time that I like much better than this! The Latin name for this fallacy is ad antiquitatem. Begging on the issue The classic definition is that whoever claims uses premises that are no more plausible than the conclusion. To see that this is a problem, remember that the conclusion is supported and that the aid should be more secure than what it supports. So if the premises are as dubious as the conclusion, the argument is unhealthy. The argument usually raises the question (literally: avoiding the question through a dubious assumption) using premises that seem as good reasons to claim, but only because the one who claims is certain that the conclusion is correct. Those who argue therefore give reasons that would be as problematic for others as would be the conclusion itself. This problem is sometimes known as preaching to the choir. Example: Of course John is a jerk. All men are idiots! Analysis: Why would anyone who questions whether John (a certain man) is a jerk be persuaded by the premise that all men are? A particular case is begging the issue by synonymy, where claims simply use the conclusion as a prerequisite, but hide this operation by rephrase it (by saying something synonymous). Example: Of course this drug will put you to sleep. It contains a soporific agent. (The arguer has said that it will put you to sleep because it contains something that will put you to sleep.) Example: is Zconian brand toothpaste better than competitors? Because our our ensure that our product is the best on the market. Another variation is loaded issues where the one who claims bias debate by loading a questionable assumption into an issue. A particular case is the fallacy of misuse of hypothesis or convincing definition. In this case, the arguer gives words a definition favorable to the argument, but has no good reason to define things in this way, other than to promote the argument. This is most often done by attaching a special emotional meaning to the words. But it can also be a question of giving an expression an unjustified non-standard interpretation. Example: How can you say tom is an idiot? An idiot is a guy who makes you pregnant and jumps out at you. All Tom did was cheat on me a few times. Example: (from the movie My Big Fat Greek Wedding) You are vegetarian? Don't you eat meat? We make lamb. Example: Prominent displayed by anti-war protesters during the U.S. invasion of Iraq in 2003: War is terrorism. (Compare this to no true Scotsman fallacy, how much the same thing is done by putting a qualifying slant in front of a word.) Skewed sample The problem of generating an unrepresentative sample using a sampling method that gives an incorrect picture of an important subgroup of the population. This is not, of course, a problem in a very homogeneous population. Looking at penguins in one place in Antarctica is fine if you just want to know the average height of penguins; where they live in Antarctica probably have no effect on penguin height. But choosing just one place to try all Americans will be biased because Americans include many, many different subgroups. So going to a mall in Fargo, N.Y., won't get you a representative sample when trying to determine how many Americans are of Norwegian descent (such a sample will be biased by over-representing that group). One way to create bias is through loaded questions that contain assumptions that affect the answer. Real example: A questionnaire sent to voters by a California congressman asking: Do you support gun control laws that limit the rights of law-abiding citizens? and Should a child under the age of 18 be able to obtain an abortion without parental consent? If the questions themselves are not biased, most biases can be eliminated by stratifying the sample. Stratification is the process by which the sample is sorted into groups (strata) which have been identified in advance as highly relevant to the question examined. For example, when the topic is abortion, both a person's gender and religious affiliation will affect his or her position. If we can't get a very random sample, then we should stratify our sample for at least these two factors. So in addition to asking them what we want to know, we need to determine these additional facts. If we try samples than we really need, we can then sort the sample into the relevant subgroups, see if someone is over-represented, and then randomly remove samples from the overrepresented groups until we reach a sample where the large subgroups are represented according to their numbers in the general population. Please note that stratification only works when we already know which subgroups are relevant to the problem and we know their numbers in the general population. Confirmation of evidence is a special case of biased test. It is the special case of using a method that gets the argumentant or researcher a result favorable to his or her desired conclusion. The method can create this bias either intentionally or accidentally. Either way, the fallacy consists in choosing a method that generates a large sample of a very specific, highly unrepresentative group. There are two ways to generate corroborating evidence. One is to use a method that initially selects an example from a specific group. For example, if I want to know how many Americans think it's time for a woman to become the President of the United States, then I would generate corroborating evidence if I only called women. It would be even worse if I only called women whose phone numbers were provided by the N.O.W. (National Organization for Women). Similarly, if I'm interesting in supporting the idea that video games harm children, I can generate my sample of kids by selecting children at a juvenile corrections facility. The second method of generating corroborating evidence is to ask a question that automatically favors an answer over other possible answers. If I want to discover strong support for private schools, can I ask people, Do you advocate continued massive grants for our failing public schools, or do you support directing some of that money for school vouchers that give parents a choice? This method involves the fallacy of the leading issue. If one generates a sample with confirmatory evidence, stratification will not remove biases from the sample. Arguments that generalize are unhealthy when they have a biased sample or involve confirmation of evidence. Causal fallacies Four fallacies cause problems for arguments that try to detect a cause in a population. They are: Fallacy of reverse cause and effect Fallacy of random correlation Fallacy by overlooking a common cause Fallacy of Post Hoc Circularity (Arguing in a Circle) In a situation that requires evidence, circularity occurs when the person who needs to provide evidence avoids doing so, and instead offers, as evidence, the very thing that requires the support of evidence. Put another way: the very allegation being discussed is introduced into the argument as proof of itself. Its Latin name: in probando. (Technically, arguing in a circle is deductively valid. Any claim may be from itself. But such arguments lack solidity, because if the truth of the conclusion is in doubt then the truth of the aid will also be in doubt.) For example, consider this argument: Clean-O Toothpaste is the best on the market because it surpasses all competitors. Since something is only best when it outperforms its competitors, the evidence is just a rewrite of the conclusion that it supports. This is circularity by synonymousity. Circularity is sometimes equated with begging the issue. I believe, however, that it is better to beg for the issue to be a broader category of erroneous evidence that is no better than the conclusion it defends. Circularity is a special case. Circularity is often hidden by introducing the repetitive information, but thus several steps removed from the conclusion. For example: God's existence can be proved by the miracles he gives. When a parachutist fails and yet a tree breaks the fall, allowing the parachutist to survive that survival is miraculous. Since no one but God can do anything miraculous, such cases prove god's existence. The circle is revealed when one asks why God is needed to explain parachutist survival if a tree already explains it. Randomness Randomness is a fallacy of sampling, but it is primarily a concern when we use sampling to establish a correlation to determine a cause. Basically, it's the fallacy to put too much trust in a sample that, because of no other fallacy, fails to represent the general image. How does that happen? Statistical information has both a margin of error and a confidence level. The two are related. Failure to hear a margin of error may result in hasty generalization. The fallacy of chance is the lack of understanding of the importance of the level of confidence. No matter how carefully we try a population, about 5% of the time we get a result that doesn't reflect what's really happening in the population. Sound sampling gives us a confidence level of 95% (we have a 95% probability that the truth falls within our margin of error). Example: We're doing a random sample of 400 people in North Dakota and asking: Were you born in North Dakota? 64% say yes. The example has a margin of error of 5%. So we can rightly conclude that there is a 95% probability that a majority of North Dakotans were born in North Dakota. Because we can't know the truth falls outside our margin of error, it's foolish to rely on studies and experiments that aren't repeated by another study or experiment. (If a separate study gets the same result and neither has any other misconception, then there is almost no chance that both got the same wrong result by accident!) We can improve (e.g. to 3%) by lowering our level of confidence. Example: The same random sample of 400 people in North Dakota Dakota reported as having a margin of error of 4% if we reduce the confidence level to 90%. So what is the fallacy of randomness? Basically, it is to rely on statistical information which, on closer examination, will prove to lack statistical significance. Either the result was one of the few cases expected to be wrong by the trust level, or the statistics are just a coincidence of the circumstances in which we conduct our investigation. Either way, we can only say that a statistic is subject to the fallacy of chance when we can point to additional data showing the sample happened to be one of the poor results predicted by confidence level. Deny the predecessor the invalid argument pattern, the second premise of which conflicts with the predecessor of a conditional. This pattern is erroneous. Argument form: 1. If A then B 2. Not a not B Example: 1. If Sam is tired, then he will fail the exam. 2. Sam is not tired. Sam doesn't want to fail the exam. It is invalid because the premises may be true, while the conclusion remains false, due to a further reason makes the consequence of the first premise true as it originally stands. (In this example, Sam might be well rested, but Sam doesn't study for graduation.) Egocentrism An extreme form of provincialism where someone identifies their own needs and then determines a problem by simply determining how these needs can be met. Someone is egocentric when she or he oversimplifies a problem by refusing to consider the relevance of facts and information that are contrary to one's personal interests. A display of egocentrism constitutes a fallacy when it blocks discussion of relevant information in the context of arguing. Ethnocentrism A common form of provincialism, where someone identifies in terms of one's ethnicity and then settles a problem by simply determining how this group is benefited. Someone is ethnocentric when she or he oversimplifies a problem by refusing to consider the relevance of facts and information that are contrary to the beliefs and/or values of one's ethnic group. An exhibition of ethnocentrism constitutes a fallacy when it blocks discussion of relevant information in the context of bickering. Ambiguity As with many of the fallacies, ambiguity is only a fallacy if we first establish that it takes place within the framework of reasoning! People are ambiguous all the time, but it doesn't have the status of a fallacy unless they're involved in reasoning (in leading someone to a conclusion). Fallacy requires the following: A word or phrase is used that has two different meanings. We can say rewriting both, that is, we can say how the two uses are different. The word or phrase clearly means one thing the first time it is used, but does it mean next time it is used. (This shift in meaning may be a shift from the meaning between the first and the other, or between a premise and the conclusion.) Fallacy may be intentional or accidental. In the former case, the person who made the argument misleads the audience by exploiting ambiguity. In the second case, the speaker does not attempt to mislead, but the audience draws an unhealthy conclusion by misinterpreting statements that can be taken in two different ways. Example: John has Catholic interests: he likes sports, science, mystery novels, and silent films. Most Catholics go to mass on a regular basis, so John probably goes to mass on a regular basis. Analysis: The first premise uses 'Catholic' with a small case 'c', which means broad or universal. The other uses a capitalletter 'C', which means religion. Since the two premises are true according to different interpretations of the concept, there has been a change of subject and the two rooms are not connected to make a strong pattern. It's unhealthy. Example: In this country, a suspect is innocent unless proven otherwise. As my trial has not yet reached the stage of the trial, I am innocent. Analysis: Pretty silly! In reality, one is or is not innocent completely apart from the jury's verdict. One is simply treated as innocent unless proven guilty (it is a statement of the burden of proof in the law, not a statement of facts). You cannot move from the legal principle to a demand for real innocence. When ambiguity is created by a punctuation error or error in grammatical construction, fallacy is technically known as the fallacy of amphiboly. Real example: Jared Blair, manager of a Hooters Restaurant in Panama City Beach, told waitresses at the restaurant that the company would reward whoever sold the most beer during April with a new Toyota. In late April, Blair told employee Jodee Berry that she had won. When Berry was led blindfolded to the parking lot to claim her prize, she was given a new toy-Yoda Star Wars doll instead of the promised car, the suit alleges. Berry sued the restaurant. (For the complete news article, click here.) Analysis: Berry claims breach of contract. If her claims are true, it is clear that Blair is guilty of fallacy of ambiguity, for choosing wording that would mislead waitresses. False or defective analogy When an argument analogously overlooks significant differences, it is subject to this fallacy and is unhealthy. To accuse it of false or defective analogy, one must note at least one significant difference between the things being compared and must explain how the difference is relevant to the question under discussion. Example: Some people argue that because alcohol is legal for adults, all other mood-altering drugs should be legal for adults. But this is a false analogy, because many mood-altering drugs are drugs that permanently change the pleasure center of causes severe dependence almost immediately. Alcohol does not work in same way so that it does not have the same level of addiction as we would get if we legalize many other drugs. Fake Dilemma (Limited Options Fallacy) The fallacy of arguing by offering someone a false or unlikely set of choices. In other words, an exclusion options argument with a false disjunction. A false dilemma is always unhealthy. We show that fallacy has occurred by pointing out one or more plausible but overlooked possibilities. Example: Either Pat should study harder or take lighter classes. Pat won't study harder, so Pat should take easier classes. Analysis: This argument has a false dilemma because it ignores the plausible alternative that Pat can change large corporations, or maybe leave school. Example: My opponent wants to extend the hunting season by starting it a week earlier. But it's not fair to the young animals, cheating them of time to develop and making them easy targets. Instead, we should extend the season by a week. Analysis: Fails to consider the possibility of none of the above, for example by simply leaving the dates of the season alone. In this fallacy, the argument is usually valid. So this is not a formal fallacy (the problem is not in the form of the argument). A variation of this fallacy is known as black-and-white fallacy. In this case, arguer oversimplifies a complex situation by viewing the situation as black and white, putting all cases in one of two extreme categories. The arguer ignores shades of gray. (Shown the color yellow, the arguer classifies it as white because it is more like white than black!) Example: He cannot be a Christian. Look, he's got tattoos! Analysis: Implicit but false assumption: You are in compliance with a certain dress code, or you are not a Christian. Example: You are either a patriot or you are one of the radicals criticizing the war! Analysis: Implicit but false assumption: There is no middle ground. Another variation is the middle ground fallacy (a.k.a. split-the-difference fallacy or moderation fallacy). In this variation, arguer arguments begin with a false dilemma by suggesting two extreme options. On the basis of their extreme nature, the argueer then suggests that the reasonable solution should be in the middle between the two, and proposes a specific third option such as this intermediate. But this remains a false dilemma, if the claimer has ignored further options, there would be alternatives (none of them). Example: Smith believes that all faculty should use Mac computers because that's what they use in her department. Jones believes that all faculty should use PCs because they are more common in the industry. But none of these plans can work. PCs lack the graphics capabilities that the art department needs, and Macs don't run all the accounting software needed on business So the university should adopt the compromise: half the future will be Macs, and half will be PCs. The National Academy of Science recommends teaching evolution in all colleges. But most Americans don't believe in evolution and don't want it taught. What we should do is balance the teaching of evolution with equal time given to teaching in the Book of Bibles of Genesis. Hasty generalization The fallacy of generalization from a small sample and fails to take this into account in the conclusion of the argument. Small is a relative concept here. A sample that is sufficient in size when asking people who they plan to vote for will be too small for medical research that looks too low in levels of allergic reaction to a new medication. Basically, fallacy occurs when we present a conclusion that is more accurate than the sample warrants. To be more precise, each sample size creates a margin of error for the resulting generalization. These margins indicate the range within which we can expect to find the right answer. A 10% margin of error means that the truth is somewhere within a 10% range on either side of the reported figure. A 3% margin of error (commonly found in professional polls) means that the truth is somewhere within a range of 3% on either side of the reported number. For example, suppose a nonpartisan sample of 100 Americans gets 55 positive answers to the question Do you like ice cream with apple pie? There is no fallacy of hasty generalization if the conclusion is reported as About 55% of Americans as ice cream with apple pie. There is a fallacy if we report it as a clear majority of Americans as ice cream with apple pie. This is misleading because our sample is consistent with the result that as few as 45% agree. Inconsistency (Contradiction) The fallacy underlying theposition to give evidence against the defence position, either directly, by undercutting the conclusion or indirectly by undercutting evidence presented at the conclusion. It is not a fallacy to object to one's argument if one then goes on to answer these objections. Acknowledging serious problems, but insisting that one is still correct, would be a case of inconsistency. Real Example: A competition promotion that advertised 50 random entries automatically win this one-of-a-kind T-shirt! If 50 people get the same shirt, how is it so unique? Real Example: On May 16, 2006, Kentucky Fried Chicken announced a new product with a press release. The message includes this section: KFC's new Famous Bowls, a departure from the restaurant's popular family style bucket, provides lunch-starved Americans with the perfect all-in-one, made for a remedy for their usual hasty and unsatisfactory lunchtime routine. new KFC Famous Bowls™ offers a hearty meal just like Mom used to make, with layers of mashed potatoes, sweetcorn and bite sized crispy chicken, sprinkled with signature home style and topped with a three-cheese mixture - in a convenient bowl. How can it be famous if it's new? Real Example: Cameron Helder, father of domestic terrorist Lucas Helder made this statement about his son: I really want you to know that Luke is not a dangerous person. But Cameron Helder also publicly asked his son to surrender to the FBI: Luke, you need to talk to someone. Please don't hurt anyone else. It's time to talk. You have the attention you wanted. There is an obvious discrepancy in claiming that Luke is not dangerous, while also asking him not to hurt anyone else (at this point, six people had been wounded by bombs). (To read the article and get more details, click here.) Cameron Helder's defence of his son seems to be a case of egocentric perspecitive. Loaded questions Fallacy of partisanship an exchange by asking a question that has an unwarranted assumption built into the question that affects the answer to it. Real Example: A newspaper asks its readers the following question: Do you think the Fargo City Commission should interfere in private property matters? The forum - 05/01/2002 Daily Poll Another version of this problem is known as complex questions, where two independent topics are combined into a single question, so that the answer to one part will seem to answer the other, as well. Example: Do you support our constitutional freedoms, such as the right of individuals to possess handguns? Loaded questions are often done by introducing a false dilemma: Example: Will you support me on this in the meeting today, or are you siding with these spine worms on the other hand? Abuse of Authority / False Authority Often called Appeal to Authority, I prefer a title that does not suggest that there is a problem with appealing to the authorities! It is often appropriate to defend the truth of a claim, or a recommendation of conduct, by citing the testimony or advice of some authority. The fallacy is to quote someone who is not really an authority on the issue. The Latin name for this fallacy is ad verecundiam. The fallacy takes many forms: the person mentioned is not an authority in any way. (Example: An advertisement shows a famous movie star supporting a car. Click here for an example.) That person is an authority, but not on the subject in question. (Example: An ad shows a famous scientist supporting a computer company, like when Apple uses Albert Einstein's photo in an ad for his computers. But he died before there was such a product! A real authority in this area would be a product testing lab, such as consumers report.) (Another example: There must be life on other planets because my history professor says it.) The subject does not require authority, but one is quoted. (Example: An ad a famous actor actor the taste of fried chicken. We can all judge for ourselves which fried chicken is tasty.) That person has expertise, but there is no agreement on the specific issue at issue. (Example: We quote Dr. X's view on the origin of the HIV virus, but since there is no consensus on this topic, Dr. X's authority settles nothing.) The source is outdated, but we're pretending it's still reliable. (Example: Referring to the encyclopedia figures of one million people as the population of Minnesota, without knowing that this version of the encyclopedia is 40 years old.) There are not enough details about the supposed authority to specifically identify the source of the information. This is an appeal to anonymous authority. (Example: Weight loss advertisements that say that a double-blind study showed the product to be 98% effective, without telling us who did the study, etc.) The Latin name for this fallacy is ad verecundiam. Some authors (such as V. R. Ruggiero), distinguish between abuse of authority (the said person does not count as an authority) and irrational appeal to authority (versions 4, 5 and 6 of the list just above). Compare these two paragraphs: I saw that my English professor has a yard sign for Nicholson for the city council, so that's who I'm going to vote for. No, I don't want to see the theatrical production of Twelfth Night. My English professor says Shakespeare's comedies are worthless. The first is the abuse of authority (the professor is no authority on local politics), the second is irrational appeal to authority (the authority that comes from being an English professor must be considered in the light of the professor's clear rejection of the standard expert opinion on this subject). Variations of this fallacy appeal to other forms of false authority, among them: No True Scotsman Fallacy This fallacy is sometimes treated as a form of ambiguity or beggars the question. But I regard it as primarily an oblique fallacy: the one who refers to, adds the qualifying term true or genuine to secure their dubious assumption. Fallacy involves making a claim and then, in the light of counterext case, protecting the claim by adding the qualifying term true or real. Anthony Flew gives this example: Imagine Hamish McDonald, a Scot sitting down with his Press and Journal and seeing an article on how 'Brighton Sex Maniac Strikes Again'. Hamish is shocked and declares that no Scot would do such a thing. The next day he sits down to read his Press and Journal again, and this time finds an article about an Aberdeen man whose brutal actions make the Brighton sex maniac seem almost gentlemanly. This fact shows that Hamish was wrong in his opinion, but will he admit this? Not likely. This time, he says, No True Scots would do that. We see this fallacy in operation when someone thinks right Christians behave in a certain way, or claim that true Americans support the president no matter what. Overlooking common cause This fallacy is limited to arguments for establishing a cause. It is the mistake of finding a connection between two things, then draw a conclusion without checking for other variables that are also correlated with these two. This problem does not occur in a controlled experiment, but it is a common problem in a study of existing behaviors and events. Let's assume that we correlate two things, A and B. But maybe A keeps showing up with B, because some previous things, X, are independently causing A and independently causing B. Here X is the common cause of A and B. Failure to screen for such things is the fallacy of the prospect common cause. Example: I notice that when I get a sore throat, it won't be long before I get a runny nose. I conclude that sore throat is a cause of runny noses. But this overlooks the common cause: I get sore throats and then a runny nose because I first get a viral infection (a cold). The virus attacks my throat, causes me a sore throat, and it attacks my nasal passages, which react defensively with mucus. The two things (sore throat and runny nose) are each caused by viruses, not one by the other. Post Hoc The full title is Post Hoc, Ergo Propter Hoc. This Latin phrase means After It, therefore because of it. This fallacy is limited to arguments for determining a cause. This problem does not occur in a controlled experiment, but it is a common

problem in a study of existing behaviors and events. It's fallacy to think that if one thing happens and then another thing happens, the first thing was the cause of the second. But time order alone cannot show that anything is a cause. At least we also need a control group! Post Hoc fallacy occurs when someone does not understand the need for a control group and draws a conclusion based on nothing but the time relationship. Many superstitions are based on post hoc reasoning. Example: I had my blue shirt when I took this biology test and I got a 95%! From now on I will always be sure to wear my lucky blue shirt when I take an exam. Post Hoc is just one of four common fallacies associated with causal reasoning. Poverty in aspect Any fallacy of oversimplification is a complex issue because of a limited perspective on it. Some common subcategories are egocentrism, ethnocentrism and patriotism/nationalism. In most cases, it arises from over-generalising, from looking at a problem only from a narrow professional perspective, or from the assumption that normal patterns of behaviour can be identified within human cultural patterns. See also provincialism (group identification, which group superiority). Harmful language A huge category of fallacies covering all strategies to replace argument argument for legitimate reasons for a post. Basically, we have a fallacy of harmful language when an arguer's choice of words is used to hide the argumentative introduction of a false or questionable assumption. Larger types include: Slanters Ambiguity Ambiguity Convincing Definition Provincialism Any argument that tries to solve a complex problem by appealing to group membership and group loyalty. Such arguments usually postulate an us versus those distinction and wrongly assume that our side is automatically better than (or more trustworthy than, or more important than) theirs. Such reasoning is unhealthy because we often find ourselves in being members of groups which, as a group, turn out to be wrong. (Some social scientists call this inability to look beyond our group poverty aspect.) A common variation is the appeal of loyalty. In this variant, the argueer says that we must act as a group and therefore cannot allow dissent, or that we should not listen to informed, internal criticism. This form of provincialism is common in arguments against minorities or dissenting views. Example: This country was founded on Christian values! Christianity is as American as apple pie! So how can you believe that the huge display of the 10 commandments in the county courthouse is a violation of the separation of church and state? A common variation is it-couldn't-happen-here assumption. Real example: A lesbian couple in Missoula, Montana, woke up one night to discover that their house was on fire. The fire, which authorities quickly announced was deliberately set and was being investigated as an attempted murder, shocked Missoula. The fire appears to have been set in retaliation for their filing of a discrimination lawsuit against the University of Montana. My idea was that it should come from outside our community, says Christopher Peterson, then a senior at Montana and the openly gay president of the Lower House Senate. It just wouldn't happen here. (The Chronicle of Higher Education, 6 Dec. 2002) For another real example, click here. A common variation is nationalism: to expect others to agree on the basis of national identity. For example, advertisements aimed at the U.S. market sometimes have an American flag or red-white-and-blue imagery for no apparent reason. This is also known as flag-waving. Red Herring (Change of subject / lack of relevance)The fallacy of introducing, as justification for one's position, a topic that is not of real relevance to the issue that was originally discussed. In effect, the arguing starts on a topic, changes the subject, and then continues as if there has been no change in the subject. Supposedly, the fallacy is known as redfire on an analogy with escaped prisoners who can smear herring (a smelly fish) on itself to throw bloodhounds off Track. Right example: No, no, he's a friend of mine. He's not a one He's a friend. I had a great time with him today. Canada's prime minister, Jean Chretien, responded to reports that his senior spokesman had called President George W. Bush an idiot. (Newsweek, 2 Dec 2002) Analysis: Maybe it's true that Bush is his friend. Maybe it's true that they had a good time together. What does this information have to do with answering the charge that Bush is an idiot? Chretien changes the subject instead of talking about Bush's intelligence. Since a large number of fallacies involve giving reasons that lack relevance to the issue under discussion, we reserve the accusation of redfire to cases where the argument fallacy is a simple change to the subject, except for one of the specialized tactics (e.g. Appeal to Shame, Appeal to Force, Straw Man, etc.) Reversal of cause and effect This fallacy is limited to arguments for determining a cause. This problem does not occur in a controlled experiment, but it is a common problem in a study of existing behaviors and events. The fallacy occurs when we have a real connection, but we have not clearly established which of the two things really comes first. We simply assume that we know what comes first, but in reality it is the other way around. If it is likely that we have turned the time order around, then the argument is unhealthy because of this fallacy. Example: Suppose there is a strong correlation between drinking a lot of coffee and being a type A personality. (In the story of the ant and the grasshopper, ants are Type A. Grasshoppers are Type B. Type Type Which works hard to meet goals, is self-critical, has a chronic sense of time urgent and is often impatient, often showing hostility, and usually show fast movements and fast speech.) We conclude that drinking a lot of coffee is a reason to be a type A. But did we firmly establish that people in the study were type A before they started drinking coffee? Maybe they had this personality type in childhood, long before they started drinking coffee. Perhaps their sense of urgency and the need to meet goals makes them more interested in using stimulants that attract them for coffee. So using the context to claim that coffee is a cause of personality would be the fallacy of reversing cause and effect. Oblique as with many of the fallacies, oblique is only a fallacy if we first establish that it takes place within the framework of reasoning! People use slants all the time, but it doesn't have the status of a fallacy unless they're involved in reasoning (in leading someone to a conclusion). This fallacy is a form of harmful language in which the wording of one's argument is designed to influence the audience to accept unspoken but dubious assumptions. (Put another way, the argumentative hides assumptions through word choice.) Sloping as a fallacy, because a good argument should do assumptions that are clear to the public. Real Example: How can we try to rationalise the strapping of explosives with the intention of murdering innocent men, women and children? If the civilized world does not defeat the deadly scourge of suicide bombers, no city in the world will be safe from any group with a complaint. (Letter to Time Magazine, 29 April 2002) Analysis: Here, the term murdering innocent men, women and children simply assumes that none of the targets have military status. The term civilized world imports the dubious assumption that we are civilized and they are not. The one that claims may have a good point, but it is hidden by the presence of oblique. One variation is No True Scotsman Fallacy. Slippery slope There are two versions of this fallacy. They are both given this name because they share a common idea that taking a first step will lead us to something we don't want. It is the unjustified assumption of this idea that is fallacy. (When the premise is justified, there is no fallacy, even if the argument otherwise resembles another slope.) The assumption in question is that choosing one thing leads to, or corresponds to, choosing another thing. But the transition from the first to the second is not immediate: one leads to the other (or is shown equivalent) by a series of small, plausible steps. The result is then noted to be undesirable, and therefore (by valid movement of the mode of tollens), we are advised to avoid the first. Hence the name slippery slope, which conjures up an image of sloping soil that is smooth. If you take another step on the slope, you will find yourself down at the bottom where you might not want to be! CLICK HERE FOR ANOTHER illustration. Oh, no! Keep an eye on the first step! The first type (where the first step leads to the second by causing it) is the causal ity. The second type (the one that leads with equivalences to the other) is the semantic slope. When there is no justification (no good reason to believe) that the first step should cause the second, or that the first is really equivalent, then the argument contains a fallacy. Reason type example:You shouldn't watch any R-action movies. If you do, you will expose yourself to situations that require violence, and exposure will lead to you accepting it, which will lead to your own willingness to act out your violent impulses. Before you know it, you'll find yourself in court for some senseless violence that you've committed. Example of semantic type: You should always be generous when tipping in a restaurant. If you save at all, you can fail to adequately compensate your server, and failing to compensate someone for their time is the same as stealing their time, and stealing someone's time is no different than forced servitude, which is just another name for slavery. If you are not generous when It's morally equivalent to participating in the slave trade. Why are these fallacies? Because in each case we can point to a break in the chain, a place where one step really doesn't take us to the next. In the first example, acceptance of false violence does not require acceptance of real violence, at least not for those of us who distinguish from fantasy from reality. In the second example, although we steal time, it does not equate to forced servitude. The server's task is to serve even if the customer does not tip, and the server knows that when you take the job. The customer does not force the server to be a server. Slippery slope is closely associated with scare tactics, the difference being that the slope argument tries to hide the threat by following a series of steps before arriving for the scary result. Straw Man This fallacy consists in distorting an opponent's position to make your own position look more reasonable. To be blunt, it involves putting words in your opponent's mouth that your opponent would not recognize as theirs. By replacing another position (usually much weaker than their real position), one fails to really engage the opponent, and thus one has not really done anything to support one's own position. The name comes from the practice of stuffing dummies and scarecrows with straw. When you attack an opponent by putting words in your opponent's mouth, you are a dummy position. But just as beating up a scarecrow doesn't show any athletic accomplishment, beating up a straw man in an argument doesn't show anything. Given this definition, the fallacy of straw man is limited to cases where there is an opponent and where one responds to that opponent. The difficulty of spotting the fallacy is that one must know enough about the issue to know when an opponent is being misrepresented. Example: If you vote for Smith, you vote for a candidate who supports continued government waste and inefficiency, continued decline in our nation's schools, and a weakened military. Real example: Like North Dakotans, we are incensed by researchers at Rutgers University proposing that our state be transformed into part of buffalo commons. Now our state legislature is in the process of placing an official seal of approval on this concept by voting to maintain a 1000-strong buffalo came along I-94 in hopes of creating a tourist attraction. Surely, a legislature that is intent on cutting education and social services has more worthy projects for our tax dollars. (Opening a letter to fargo forum) Analysis: Straw man, twice! The Rutgers researcher did not propose a Buffalo Commons (where large stretches of plains would become nature reserves, almost devoid of human obsession). They predicted it as trend in the region. Here, a small change completely gives the wrong picture of So the argue distort the legislature by claiming their action will be an official seal of approval on this concept. The real problem seems to be impending cuts to education and social services, but straw men have no clear connection to this issue (red-herring!). Second Real example: '[Senator John] Kerry adds something else that annoys me a lot,' [Christopher] Hitchens told Tim Russert in a September 2004 interview in which he endorsed Bush for re-election. He gives the impression, sometimes overtight, that our politics have bilged people against us and ... in the Muslim world, etc., where again there is an element of truth. Kerry, of course, was overtly right; but when Hitchens had finished twisting the senator's words, he was objectively on the side of evil: if people say: Let's have a foreign policy that doesn't anger the bin Ladenists... what are they asking for?' (Harold Meyerson, Your War, Too, The American Spectator, August 2005) Analysis: What Hitchens first says about Kerry is correct. The straw comes when Hitches then suggests that Kerry wants a foreign policy that doesn't anger bin Ladenists, as if Kerry would routinely avoid any foreign policy decision that upsets Bin Laden and his supporters. There is no reason to believe that Kerry is approaching the situation in this way. Wishful thinking An argument in which a strong emotional investment persuades the argumentator to promote a completely improbable reason, where it is clear that the claimer simply advances this reason for feeling better about himself (rather than because it is the truth). The arguer adopts the (usually implicit) assumption: I think what makes me better about myself. An example could be: I'm not really hurting the environment by driving this gas-guzzling SUV. After all, it lets me go out in harsh places where I can be at peace with nature. Real example: Singer Whitney Houston discusses her drug addiction: I like to think . . . I had a bad habit. I don't like to think of myself as addicted. (Newsweek, Dec 16, 2002) Real example: Cameron Helder, father of domestic terrorist Lucas Helder, made this statement about his son: I really want you to know that Luke is not a dangerous person, Cameron Helder said, choking back tears. I think he's just trying to make a statement about how our government is governed. I think Luke wants people to listen to his ideas and not enough people hear him and he thinks this can help. (To read the article and get more details, click here.) Analysis: But the father had previously arranged for his son's arrest, fearing that the son would hurt more innocent people. The father's claim that the son is not dangerous is a case of wishful thinking (the father will feel bad about himself if he admits the truth about the son). son).