



Monty Python and the Quest for the Perfect Fallacy

Student Handout #1: **Common Fallacies and Booby traps**

Terms

- **Argument:** a conclusion together with the premises that support it
- **Premise:** a reason offered as support for another claim
- **Conclusion:** the claim, supported by a premise or premises
- **Valid:** an argument whose premises genuinely support its conclusion
- **Unsound:** an argument that has at least one false premise
- **Fallacy:** an argument that relies upon faulty reasoning
- **Booby trap:** an argument that, while not a fallacy, might lead an inattentive reader to commit a fallacy

Examples

Example 1: Whichever basketball team scores the most points will win the game. Virginia scored more points than UNC. Therefore Virginia won the game.

In Example 1, the first two sentences are premises and the third is the conclusion. The argument is valid, for the two premises provide genuine support for the conclusion.

Example 2: Whichever candidate receives the greatest share of the popular vote will be elected president of the United States. Al Gore received more votes than George Bush. Therefore, Al Gore was elected president of the United States.

Example 2 has exactly the same structure as Example 1. The first two sentences are premises, and the third sentence is the argument's conclusion. The difference, of course, is that in Example 2, the first premise is false. Getting the most votes is not the way one gets elected president. So Example 2 is unsound.

Fallacies	Booby traps
<p>Genetic Fallacy: Rejecting an argument based on its origins rather than on its own merits. A related form accepts or rejects arguments based on others who endorse or reject those same arguments.</p> <p>EXAMPLE: You think labor unions are good? You know who else liked labor unions? Karl Marx, that's who.</p> <p>ANALYSIS: The argument rejects labor unions on the grounds that Marx liked</p>	<p>Vagueness: A lack of clarity or precision in language. Words or groups of words are vague when their meanings are inexact or when it is unclear to which things the word or words apply.</p> <p>EXAMPLE: Your horoscope today: Small talk sometimes makes the world go 'round. A casual conversation at work or at a dinner party can spark something much greater than the sum of its parts. Go ahead and talk to multiple people about</p>

<p>unions without making any reference to any of the present arguments for or against labor unions.</p>	<p>many things.</p> <p>ANALYSIS: What does it mean for a conversation to “spark something much greater than the sum of its parts”? It could mean just about anything, making the prediction true, but rather empty.</p>
<p>Red Herring: An argument that pretends to establish a particular conclusion but that really argues for something else entirely. The origin of the term derives from fox-hunting, where a smoked herring (which the smoking process renders red) would be dragged across the trail of the fox to throw off the hounds.</p> <p>EXAMPLE: You say that Coach Smith pressured teachers to give his students passing grades. But don't you agree that athletics are important to schools? Don't they build character?</p> <p>ANALYSIS: The speaker shifts the subject from Coach Smith's actions to the importance of athletics.</p>	<p>Equivocation: A subcategory of vagueness that consists of using a term or expression in an argument in one sense in one place and in another sense in another.</p> <p>EXAMPLE: Any law can be repealed by the proper legal authority. The law of gravity is a law. Therefore, the law of gravity can be repealed by the proper legal authority.</p> <p>ANALYSIS: The word “law” is being used in two different senses.</p>
<p>Straw Man: A subcategory of red herring that involves misrepresenting an opponent's position to make it easier to attack. The origin of the phrase derives from soldiers who learn to use bladed weapons by attacking straw-filled dummies – a much easier target than live people who are attempting to stab back.</p> <p>EXAMPLE: Feminism is part of “a socialist, anti-family political movement that encourages women to leave their husbands, kill their children, practice witchcraft, destroy capitalism and become lesbians.” (Statement from Pat Robertson)</p> <p>ANALYSIS: Well certainly we'd have good reason to oppose a political movement of that sort; fortunately, though, feminism does not hold any of those things.</p>	<p>Suppressed Evidence: A failure to mention or otherwise acknowledge important, relevant evidence. Suppressing evidence is not always a fallacy (for instance, defense lawyers are professionally obligated to ignore evidence of their client's guilt), but ignoring relevant facts is often a sign of an attempt to mislead.</p> <p>EXAMPLE: Capital gains taxes keep people locked into their investments rather than moving to more productive investments. Someone who has to pay a large tax on her gains may be less inclined to sell stock, leaving her with less money to invest in new ventures.</p> <p>ANALYSIS: The problem, of course, is that selling a stock requires a purchaser for that stock. So if the holder of shares doesn't sell them, it's true that she has less money to reinvest, but it ignores the</p>

	<p>fact that the person who would have bought her shares now has whatever money he would have paid her to invest elsewhere.</p>
<p>False Cause: Labeling one thing as the cause of another thing on insufficient or unrepresentative evidence or using evidence that conflicts with established higher-level truths or theories.</p> <p>EXAMPLE: Dan White ate a lot of Twinkies and then killed the Mayor of San Francisco. If I were a mayor, I'd ban Twinkies so no one would kill me.</p> <p>ANALYSIS: The argument assumes that eating Twinkies somehow causes mayors to be assassinated when no such causal connection has been demonstrated. (Note that White's actual murder trial did invoke Twinkies as part of a diminished capacity argument, leading to what is now known as "the Twinkie defense." Contrary to legend, however, the defense did not really argue that Twinkies caused White to commit murder. Details are available here.)</p>	<p>Appeal to Authority: Accepting the word of authorities when we lack good reasons for thinking that they have the information we need or when we think that they might be biased, or when we ought to figure the matter out for ourselves, or when the authority in question is not really an expert in the relevant area.</p> <p>EXAMPLE: Hi, I'm Troy McClure. You might remember me from such films as <i>The Day the Peacock Died</i>. After filming scenes with feathered co-stars all day, there's nothing I enjoy more than a bucket of Buster's Chicken. It's chickentastic!</p> <p>ANALYSIS: While Troy might be an expert on making bad films, he has no particular expertise on fast food. Thus the fact that Troy McClure enjoys a particular sort of food is not a good reason for thinking that I ought to buy some.</p>
<p>Undistributed Middle: An argument in which the middle term is undistributed, meaning that not all the instances of things that are C are also instances of things that are A or of B. In other words, the first premise tells us that everything that is an A is also a C. It doesn't tell us anything about whether things that are C are also things that are A. Similarly, in the second premise, we are told that everything that is a B is also a C. But again, we know nothing about things that are C.</p> <p>A is a C. B is a C. Therefore A is a B.</p> <p>The argument is seductive because of its surface similarity to a valid argument form:</p> <p>A is a C. C is a B. Therefore A is a B.</p> <p>In this argument, we know something</p>	<p>Questionable Use of Statistics: Employing statistics that are questionable without further support. There are several subcategories here. Hasty Conclusion: Accepting an argument on the basis of too little evidence. Small Sample: Drawing conclusions on the basis of a sample that is too small to be reliable. Unrepresentative Sample: Reasoning from a sample that is not representative of the general population.</p> <p>EXAMPLE: Women shouldn't be concerned with wandering around in back alleys at night, since studies indicate that half of the rape committed takes place in the victim's own home, while only one-twelfth happens in alleys.</p> <p>ANALYSIS: The argument uses statistics poorly; the argument is really about the</p>

about A (namely, that every instance of A is also an instance of C). And we also know something about C (namely, every instance of C is also an instance of B). Since the C is distributed in the second premise, we can correctly link A with B.

EXAMPLE: Most Arabs are Muslims and all the 9/11 hijackers were also Muslims. Therefore most Arabs are hijackers.

ANALYSIS: The conclusion doesn't follow from the premises. To show this, substitute the following argument: My 5-year-old enjoys watching television, and teenagers also enjoy watching television. Therefore my 5-year-old is a teenager.

likelihood of being raped in a back alley. Since women are in their homes far more frequently than they are in back alleys, it stands to reason that the sheer number of rapes will be higher in a victim's home. But that tells us nothing at all about how likely it is that a woman wandering around a back alley will be raped.