

Informal Fallacies

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PHIL 180: Introductory Logic

Outline

- 1 Fallacies in General
- 2 Fallacies of Irrelevance
- 3 Fallacies Involving Ambiguity
- 4 Fallacies Involving Unwarranted Assumptions

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 2. Energy is proportional to mass.

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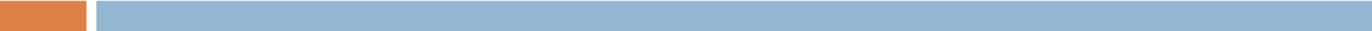
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Informal Fallacies



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“[A] note of caution: there is some debate about just which patterns of reasoning count as fallacies... Be warned... occasionally, an author will invent a fallacy simply to demonize some view that he or she disagrees with. By labeling a claim or argument form fallacious, the author is trying to make you think it’s an error in reasoning that can be dismissed without much reflection, when in fact the argument may be sound and plausible.” (Howard-Synder et. al., p. 188)

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Argument Against the Person (Ad Hominem)

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- **Example:** After Sandra Fluke argued before Congress that healthcare should include birth control, since it is used to combat ovarian cysts, Rush Limbaugh responded with: “What does it say about the college co-ed Sandra Fluke, who goes before a congressional committee and essentially says that she must be paid to have sex, what does that make her? It makes her a slut, right? It makes her a prostitute.”

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- **Example:** Robert Kennedy argues that we shouldn't have a wind farm in the Nantucket Sound because the wind turbines would kill thousands of migrating songbirds and sea ducks each year. However, Robert Kennedy is only opposed to the wind farm because he and his family have property in Hyannis Port whose value would be hurt by the building of the wind farms. So songbirds and sea ducks are just a distraction; we should build the wind farm.

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- **Example:** Newt Gingrich called for Bill Clinton to be impeached for lying about his affair with Monica Lewinsky. However, at the same time, Gingrich was lying about his own affair. So, obviously, lying about one's affair isn't a reason to be impeached.

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 - If the issue under discussion is whether the arguer is a good person, then personal attacks may not be fallacious
 - If the arguer is appealing to their own authority, then questioning the arguer's authority could be a perfectly reasonable way of rejecting one of the argument's premises.

Not Ad Hominem Fallacies

- **Not An Example:** Aroosa claims that we should trust her when she says that climate change is anthropogenic, since she's a scientist. However, Aroosa is being bankrolled by environmentalist charities; she has financial reason to say that climate change is anthropogenic; so we shouldn't trust her.

Not Ad Hominem Fallacies

- **Not An Example:** Glenn Greenwald: “Barack Obama went further [than George W. Bush] by claiming the power not merely to detain citizens without judicial review but to assassinate them...He has waged an unprecedented war on whistleblowers, dusting off Wilson’s Espionage Act of 1917 to prosecute more than double the number of whistleblowers than all prior presidents combined. And he has draped his actions with at least as much secrecy, if not more so, than any president in US history.”

Straw Man Fallacy

- A *straw man fallacy* occurs when one misrepresents somebody else's position or argument (usually making it more simplistic or naive than their actual position or argument), and then argues against the misrepresented position or argument, rather than the person's actual position or argument.

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- **Example:** Mr. Goldberg has argued against prayer in the public schools. Obviously Mr. Goldberg advocates atheism. But atheism is what they used to have in Russia. Atheism leads to the suppression of all religions and the replacement of God by an omnipotent state. Is that what we want for this country? I hardly think so. Clearly Mr. Goldberg's argument is nonsense.

Appeal to Force (Ad Baculum)

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- **Example:** Anusar argues that workers are entitled to more of the firm's profits than management because they contribute more to the product. But no firm wants to hire an employee with radical views like that. That's why Anusar's been unemployed for so long. So it doesn't matter how much workers contribute: workers are entitled to what they get. If you think otherwise, you'll end up out of work like Anusar.

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- *Why it's fallacious*: simply because you can avoid harm by accepting a certain statement, that doesn't give you any reason to suppose that the statement is *true*.
- *A closely related but non-fallacious argument*: if the harm being threatened is *relevant* to the truth of the conclusion, then an *ad baculum* might be perfectly reasonable.

Not an Ad Baculum Fallacy

- **Not An Example:** You shouldn't smoke, or else you'll likely get lung cancer.

Appeal to the People (Ad Populum)

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Example: *We Americans have always valued freedom. We understand that this freedom comes with a price, but it is a price we are willing to pay. True Americans resist the more extreme measures of the war on terror, like the Patriot Act. So, we need to repeal the Patriot Act.*

Appeal to the People (Ad Populum)

Example: *I can't believe that you think we should curtail the freedom of speech in order to protect minority rights. Only fascists and kooks think that! So you should really reconsider your opinion.*

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- *A closely-related but non-fallacious argument:* If the arguer is pointing to the consensus of people who are in a better position to evaluate the evidence, then they could be making an appeal to authority, which needn't be fallacious.

Appeal to the People (Ad Populum)

Not An Example: *The biological community has reached a near-unanimous consensus that the hypothesis of evolution by natural selection is correct. Since they are experts on the subject, we should trust them that there is excellent reason to believe in the hypothesis of evolution by natural selection.*

Appeal to Ignorance (Ad Ignorantiam)

- An *appeal to ignorance* occurs when somebody argues in favor of a conclusion that we don't antecedently have any reason to accept (or which we antecedently have reason to reject) on the grounds that there's no evidence either way.

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- Alternatively, it occurs when somebody argues against a conclusion that we don't antecedently have any reason to reject (or which we antecedently have reason to accept) on the grounds that there's no evidence either way.

Appeal to Ignorance (Ad Ignorantiam)

Example: *The studies purporting to show that barefoot running is good for you have been discredited. However, there aren't any studies showing that it's not good for you – the jury's still out. So, you should keep running barefoot.*

Example: *There's no evidence showing that there's life on other planets. So we should stop looking – it's not there.*

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 - If certain evidence was *to be expected* if a certain statement were true (false), and we don't find that evidence, that can count as good reason to think that the statement is false (true).

Appeal to Ignorance (Ad Ignorantiam)

Not an Example: *The studies showing that circumcision reduces HIV transmission were badly methodologically flawed, so circumcision probably doesn't reduce HIV transmission.*

Not an Example: *If he had been poisoned, the toxicology report would have revealed poison in his blood; it didn't; so, he probably wasn't.*

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- every other fallacy in this section constitutes an instance of the red herring fallacy. It is the most general fallacy of irrelevance.
 - Use 'red herring' to refer to fallacies of irrelevance which do *not* fall into the other categories. If a fallacy falls into one of the other categories, identifying it as a red herring, on, e.g., a test, will not be correct.

Red Herring (Ignoratio Elenchi)

Example: *Jamal says that we shouldn't have a central bank because central banking is responsible for the economic fluctuations of the business cycle. But people have been banking for centuries. Bankers aren't bad people, and they provide the valuable service of providing credit to people who don't have their own capital. Jamal's just jumping to conclusions and probably needs to meet some bankers to see that they're not bad people.*

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Equivocation

Example: *In order to be a theist, as opposed to an agnostic, you must claim to know that God exists. But, even if you believe that God exists, you don't know it. Thus, you shouldn't be a theist. It follows that you should either be an agnostic or an atheist. However, once you've ruled out theism, what is there to be agnostic about? Once theism has been ruled out, atheism is the only remaining possibility. Therefore, you shouldn't be agnostic. Hence, you should be an atheist.*

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Not an Example: *I work at the **bank**, and there are fish at the **bank**. So there are fish where I work.*

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Example: *Nothing is better than Game of Thrones, and Duck Dynasty is better than nothing. We can infer that Duck Dynasty is better than Game of Thrones.*

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Amphiboly

- *A closely related but non-fallacious argument:* If an argument uses a sentence that has multiple meanings, but the premises are true and the argument valid on a single disambiguation, then the argument is not amphibolous.

Not an Example: *Flying planes* can be dangerous. You should avoid dangerous things. So, you should avoid *flying planes*.

Composition/Division

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Example: *Atoms are invisible, and I am made of atoms.
So I am invisible.*

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Example: *Celebrity actors get paid more than non-celebrity actors. So the group of celebrity actors makes more money than the group of non-celebrity actors.*

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Example: *Surely Anthony loves me. For he told me he loves me, and he wouldn't lie to someone he loves.*

Example: *My scale is working perfectly. I weighed this textbook, and it said that it was 12 ounces. And, as I just learned by looking at the scale, it is 12 ounces. So the scale got it exactly right!*

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Example?: *There are numbers greater than 4. Therefore, there are numbers.*

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- The fallacy of *false dilemma* occurs when an argument makes use of a premise that presents contraries as though they were contradictories.

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Example: *Either you are with us or you are with the terrorists. If you're leaking classified information about our government, then you're not with us. So, you are with the terrorists.*

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Example: *It would be terrible if the government regulated every aspect of a person's life - their clothes, their love life, their personal beliefs. So we shouldn't have government regulation; let the free market decide.*

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Example: *It would be terrible if there were no government regulation of any behavior. There would be total anarchy, and those with the most money and influence would exert their arbitrary authority over everyone else. So we need the government to regulate the marketplace.*

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Not an Example: *Given that it's around noon, Dmitri is either in his office or at lunch. But he's not in his office, so he's probably at lunch.*

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Example: *The weather channel usually knows what the weather will be. The conclusion is inescapable: the weather channel is causing the weather.*

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- *A closely-related but non-fallacious argument:* If we have good antecedent reason to think that two factors may be causally related, then the fact that they regularly appear together could be good reason to think that they might be causally related.

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Example: *If we legalize gay marriage, then we'll soon be legalizing polygamous marriages, bestiality, dendrophilia, and other perversions. So we shouldn't legalize gay marriage.*

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- *A closely related but non-fallacious argument:* If there is good reason to suppose that performing the first action *will* set off a chain reaction of consequences which are bad, then one is not reasoning fallaciously if one suggests that we shouldn't undertake the first action.

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Not an Example: *If start going down that slippery slope, you'll just start slipping further and further down, until you fall off the edge of the cliff.*