3.2: Fallacies of Evidence

Non Sequitur Fallacy (Latin for “does not follow”)

A logical fallacy that is most often absurd, where the premises have no logical connection with or relevance to the conclusion.

Example: The police have not been able to crack this homicide cold case, so they’ve called a psychic in to help out. They have tried all the traditional police investigation methods and the case still isn’t solved. Therefore, the psychic (the non-traditional method) is needed.

The general idea is that some evidence is being presented without its connection with the intended conclusion being illustrated in any way.

Red Herring (Latin: *Ignoratio elenchi*)

This fallacy involves the raising of an irrelevant issue in the middle of an argument, derailing the original discussion, and causing the argument to contain two totally different and unrelated issues. A red herring has happened when you begin your argument about one thing and end up arguing about something else entirely different. This fallacy renders any premises used logically unrelated to the conclusion. A red herring is a distraction tactic and is often used to avoid addressing criticism or attack by an opponent. This device is most commonly seen in political debates.

Example: The ‘Occupy Wall Street’ protesters complain that corporations and their money control Washington. But how can we take them seriously when their camps are messy, disorganized, with homeless people and drug addicts now living with them, and they are making life hell for the shop owners in their area?
Straw Man Fallacy

Like the red herring, a straw man tends to happen when one person is criticizing or attacking another’s position or argument. It occurs when a person misrepresents or purposely distorts the position or argument of their opponent in order to weaken it, thus defeating it more easily. The name vividly depicts the action: imagine two fighters in a ring, one of them builds a man made of straw (like a scarecrow), beats it up horribly, and then declares victory. While doing this, his or her real opponent stands in the ring, completely untouched. The straw man is considered to be one of the commonest fallacies; in particular we see it in widely used in political, religious, and ethical debates.

Example: The Leader of the Opposition is against the purchase of new submarines and helicopters. Clearly he is okay with our country being defenseless and open to invasion by our enemies. He also obviously hates our country. So, be ready to learn a new language and give up all our freedoms!

Abusing The Man (Ad hominem)

Any attempt to disprove a proposition or argument by launching a personal attack on the author of it. A person’s character does not necessarily predict the truth or falsity of a proposition or argument. There are many flavors of this fallacy and they all attempt to win an argument fallaciously:

*Ad hominem denier* – rejects the claim the person is making

Example: Mark said that Jill is the nicest person ever, but you should ignore everything Mark says.

*Ad hominem silencer* – rejects one’s ability to talk about the claim

Example: All of Marx’s economic doctrines are hogwash. But this was to be expected given he studied only philosophy in university, not business, and he never even held down a regular job.

*Ad hominem dismisser* – rejects the reliability of the speaker

Example: John said he saw me take the tacos, but he always lies about eating people’s food, so you shouldn’t trust him.

*Tu quoque* ad hominem (“You too”, or appeal to hypocrisy)

Example: Why should I listen to you when you tell me to stop drinking? You’re the biggest drunk I know!

Of course, if the person being attacked in an *ad hominem* really is guilty of the claim and it is relevant to the argument, then attacking them in this fashion is not fallacious.

Naturalistic Fallacy

(Latin: *argumentum ad Naturam*) A fallacy that occurs when a person bases their argument of position on the notion that what is natural is better or what ‘ought to be’. In other words, the foundation for the argument or position is a value judgment; the fallacy happens when the argument shifts from a statement of fact to one of value. The word ‘natural’ is
loaded with positive evaluation, like the word ‘normal’, so implied in the use of it is praise. One commonly sees this fallacy in moral arguments.

Example: It is only natural to feel angry sometimes; therefore there is nothing wrong with feeling angry.

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**Appeal to Authority**

(Latin: *argumentum ad verecundiam*) An attempt to prove a conclusion by an improper appealing to an authority, and this appeal is considered improper when the authority is irrelevant and/or unrecognized.

Example: My mom says if I eat watermelon seeds, a plant will grow in my belly and I’ll turn green. Because my mom said it, it is true.

It should be noted here that not all appeals to authority are faulty. When you are sick, you do visit your doctor and take their advice, and when you get into legal trouble you follow what a lawyer tells you. So, an appeal to authority can be relevant and proper when the authority you appeal to is (1) recognized as having authoritative expertise in that area, and (2) if we ourselves lack the information, the experience, or cannot firsthand acquire the information required ourselves for the argument. To appeal to statements made by Buzz Aldrin when speaking about the moon’s surface is a proper application of authority. In general, you should ask

- Is the cited authority in fact an authority in the appropriate area?
- Is this the kind of question that can now be settled by expert consensus?
- Has the authority been cited correctly?
- Can the cited authority be trusted to tell the truth?
- Why is an appeal to authority being made at all?

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**Appeal to Force**

(Latin: *argumentum ad baculum*) Any attempt to make someone accept a proposition or argument by using some type of force or threat, possibly including the threat of violence. After all, threats do not establish truth whatsoever.

Example: Company policy concerning customer feedback is “it’s either perfect (100%) or we failed (99% or less)”. Anyone who doesn’t support this will be fired.

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**Appeal to Fear**

Any attempt to make someone accept a proposition or argument by using fear related to the concept as a motivation.

Example: Do you want Al-Qaeda to take over the world? No? Then you should vote to increase military spending.
Appeal to Pity

(Latin: *argumentum ad misericordiam*) Any attempt to make someone accept a proposition or argument by arousing their emotions. A strong emotional appeal is meant to subvert someone’s rational thinking. Remember: Pity alone does not establish truth.

Example: The defendant should not be found guilty of this crime. Her life has been filled with endless abuse, a lack of love and respect, and so many hardships.

Appeal to Tradition

(Latin: *argumentum ad antiquitatem*) This fallacy happens when someone cites the historical preferences and practices of a culture or even a particular person, as evidence for a proposition or argument being correct. Traditions are often passed down from generation to generation, with the explanation for continuity being “this is the way it has been done before”, which is of course not a valid reason. The age of something does not entail its truth or falsity.

Example: We have turkey for Thanksgiving dinner and duck for Christmas dinner every year, because that is how my parents and grandparents did it, so it’s the right thing to do.

Appeal to Novelty

(Latin: *argumentum ad novitatem*) This fallacy is the opposite of appeal to tradition, in that it is the attempt to claim that the newness or modernity of something is evidence of its truth and superiority. The novelty of the idea or proposition does not entail its truth or falsity.

Example: String Theory is a new and rising research area in particle physics, and therefore it must be true.

Appeal to Ignorance

(Latin: *argumentum ad Ignorantiam*) The attempt to argue for or against a proposition or position because there is a lack of evidence against or for it: I argue X because there is no evidence showing not-X.

Example: There is intelligent life on Neptune, for sure. Science has not found any evidence that there isn’t life there.

Appeal to Popularity

(Latin: *argumentum ad numeram*) The attempt to use the popularity of a position or premise as evidence for its truthfulness. This is a fallacy because the popularity of something is irrelevant to its being true or false. It is one that sometimes is difficult to spot or prevent doing because common sense often dictates that if something is popular it must be true and/or valid.

Example: Eating quinoa daily is a healthy thing everyone is doing, so it must be the right choice.
Again, sometimes these can be non-fallacious. You have to ask the following questions:

- Is this opinion actually widely held?
- Is this the kind of area where popular opinion is likely to be right?
- Why is an appeal to popular opinion being made?