

0 Fallacies

Note: Exercises and some examples are from *A Concise Introduction to Logic*, by P. Hurley, Wadsworth (2006).

A fallacy is a defect in an argument that consists in something other than a false premise.

- A formal fallacy is bad in virtue of something about the form of an argument.
- An informal fallacy is bad in virtue of something in the content of an argument.

1 Formal fallacies

For deductive arguments, a formal fallacy can occur in any number of ways. Basically, it occurs when someone purports the conclusion to be guaranteed by the premises in virtue of form alone, but the form of the argument does not actually do this. Last time, we talked about these formal fallacies:

- Fallacy of denying the antecedent: If P, then Q. Not P. Therefore, not Q.
- Fallacy of affirming the consequent: If P, then Q. Q. Therefore, P.

2 Informal fallacies

Fallacies of relevance occurs when one appeals to something other than proper argument to try to elicit agreement with the conclusion.

- Appeal to force
 - "You should vote for our candidate. Otherwise these big gentlemen here will prove rather convincing..."
- Appeal to pity
 - "You shouldn't fire Smith for gross misuse of company finances. His wife just left him - it would destroy him."
- Appeal to the people
 - "Use Kleenex - everyone else does."
- Ad hominem
 - Occurs when one appeals to facts about their opponent / circumstances when it's not really relevant
 - "You shouldn't vote for Senator Smith's anti-abortion legislation. His own daughter got an abortion four years ago."
- Accident
 - Occurs when a general rule is applied to a specific case it was not intended to cover
 - "Freedom of Speech is a constitutionally guaranteed right. Therefore, Smith should not be arrested for his speech that incited the riot last week."
- Straw man

- Occurs when one distorts their opponent's position into a more radical/absurd position and argues against that instead
- "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."
- Missing the point
 - Occurs when the premises support one conclusion, but a different one is drawn instead
 - "Crimes of theft and robbery have been increasing at an alarming rate lately. The conclusion is obvious: we must reinstate the death penalty immediately."
- Red herring
 - Occurs when the subject is changed to something that doesn't actually lead to the conclusion
 - "There is a good deal of talk these days about the need to eliminate pesticides from our fruits and vegetables. But many of these foods are essential to our health. Carrots are an excellent source of vitamin A, broccoli is rich in iron, and oranges and grapefruits have lots of vitamin C."

Fallacies of weak induction occur when the connection between the premises and conclusion is not strong enough to support the conclusion.

- Appeal to unqualified authority
 - "Dr. Bradshaw, our family physician, has stated that the creation of muonic atoms of deuterium and tritium hold the key to producing a sustained nuclear fusion reaction at room temperature. In view of Dr. Bradshaw's expertise as a physician, we must conclude this is true."
- Appeal to ignorance
 - "People have been trying for centuries to provide conclusive evidence for the claims of astrology, and no one has ever succeeded. Therefore, we must conclude that astrology is a lot of nonsense."
- Hasty generalization
 - Occurs when the sample is not plausibly representative of the group
 - "Smith's Ford Acura keeps breaking down. Clearly none of Ford's cars are reliable."
- False cause
 - Occurs when the causal connection suggested between premises and conclusion is not plausible

- “There are more laws on the books today than ever before, and more crimes are being committed than ever before. Therefore, to reduce crime we must eliminate the laws.”
- Slippery slope
 - “The legislature wants to raise taxes again this year. Before you know it, we’ll be living in a socialist regime.”
- Weak analogy
 - Occurs when the analogy is not strong enough to support the conclusion that is drawn
 - “Harper’s new car is bright blue, has leather upholstery, and gets excellent gas mileage. Crowley’s new car is also bright blue and has leather upholstery. Therefore, it probably gets excellent gas mileage too.”

3 Platonism and nominalism about properties

Platonism versus nominalism about properties

- *Nominalism* is the view that only particular objects exist
- *Platonism* is the view that properties exist also

Properties are abstract entities that are *instantiated* by their bearers. Properties are also typically taken to be *universal* – that is, the same property can be instantiated by more than one particular object.

Why believe in universals?

Firetrucks are red. (Some) Roses are red. My tongue is red. Therefore there is something which all these things have in common, namely, redness.