

Fallacies

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Fallacies

- Fallacies are are **deceptively bad arguments**: they resemble valid/sound/good arguments but they are not
- A fallacy is “a form of argument that seems to be correct but which proves, upon examination, not to be so.” (Copi 1961, 52).
 - Here, the term ‘correct’ should be regarded as sufficiently broad to allow for both deductive invalidity, inductive weakness, as well as some other kinds of argument failure.
- Still, fallacies are psychologically persuasive and can be intentionally used to deceive others

Fallacies

- **A possible classification**
- ***Formal fallacies***
 - Deductive fallacies (They include affirming the disjunct, affirming the consequent, denying the antecedent, syllogistic fallacies).
- ***Informal fallacies***
 - Fallacies of relevance
 - Fallacies of ambiguity
 - Inductive fallacies

Fallacies of relevance

1. ad baculum (appeal to force)
2. ad hominem abusive / circumstantial (attack on the person)
3. ad ignorantiam,
4. ad misericordiam,
5. ad populum,
6. ad verecundiam.
7. ignoratio elenchi (missing the point; see also: red herring, non sequitur)
8. ad consequentiam (see also: slippery slope)
9. complex question,
10. petitio principii (begging the question)

Fallacies of relevance

- **Argumentum ad baculum (appeal to force)**
- Appealing to force or the threat of force to bring about the acceptance of a conclusion.
 - I'm sure you can support the proposal I made, because if I receive any opposition, I will personally see that you are immediately transferred to Alaska.

Fallacies of relevance

- **Argumentum ad hominem (attack on the person)**
- Attacking the character or circumstances of an individual instead of seeking to disprove his/her argument.
- ***Ad hominem abusive***: someone's belief is taken to be mistaken because he/she is somehow deficient, as evidenced by some undesirable aspects of his/her character, personality, morality, or competence
 - What he's saying is wrong because he's a drug addict.
- ***Ad hominem circumstantial***: someone's belief is taken to be mistaken because his/her position is motivated by personal circumstances
 - Of course what he's saying against the death penalty cannot be right; he's on death row!

Fallacies of relevance

- **Argumentum ad ignorantiam (appeal to ignorance)**
- 1. a proposition is taken to be true simply because it has not been proved false
 - Nobody has proven that vaccines don't cause autism beyond a shadow of doubt, so it is clear that vaccines cause autism
- 2. a proposition is taken to be false simply because it has not been proved true
 - Nobody has proven that talcum causes cancer beyond a shadow of doubt, so it is clear that talcum does not cause cancer

Fallacies of relevance

- **Argumentum ad misericordiam**
- Appealing to pity (or a related emotion, such as sympathy or compassion) for the sake of getting a conclusion accepted
 - I did my homework even if I had the flu and a terrible headache, so the grade should be higher.

Fallacies of relevance

- **Argumentum ad populum**
- ***Appeal to popularity/majority***: attempting to prove a conclusion on the grounds that all or most people think or believe it is true.
 - Of course nuclear power plants are dangerous, everybody thinks so!
- ***Appeal to an élite*** (not of experts)
 - Most moms think that vaccines are dangerous, so they must be so, because moms care about their children
- ***Appeal to emotions***

Fallacies of relevance

- **Argumentum ad verecundiam (inappropriate authority)**
- Appealing to the testimony of an authority outside his/her special field of expertise.
 - Linus Pauling, who is the winner of two unshared Nobel prizes, one for chemistry and one for peace, argued that his daily medication of Vitamin C delayed the onset of his cancer. So, vitamin C must be effective in preventing cancer. (But, winning Nobel Prizes for chemistry and peace does not imply expertise in medicine)
- It might be similar to arg. ad populum - élite

Fallacies of relevance

- **Ignoratio elenchi (missing the point)**
- Proving a conclusion not pertinent and quite different from that which was intended or required.
- See also **Red herring** and **Non sequitur**
 - Murdering one's own child is the worst crime one could ever commit, especially with the kind of cruelty we've seen during this trial. Therefore, the defendant must be declared guilty.

Fallacies of relevance

- **Argumentum ad consequentiam**
- Attempting to prove that a conclusion is true (or false) because the consequences of it being true (or false) are desirable (or undesirable).
- If evolutionary theory would be true, then one should admit that human beings are like apes, which is an aberration. So, evolutionary theory must be wrong.
- See also **Slippery slope**

Fallacies of relevance

- **Complex question**
- Phrasing a question so that it assumes something not contextually granted, something not true, or a false dichotomy.
- IMP! To be a fallacy, and not just a rhetorical technique, the conclusion (usually an answer to the question) must be present either implicitly or explicitly.
 - How can we save our country from the bureaucratic dictatorship and the corruption of the present administration? Only voting our party! (the stated of affairs alluded to in the question must be already established before evaluating the conclusion)

Fallacies of relevance

- **Petitio principii (begging the question)**
- Assuming in a premise a statement which is taken to have the same meaning as the conclusion of the argument.
- I have experienced what can only be described as paranormal activity, so paranormal activity is clearly real.

Fallacies of ambiguity

1. equivocation,
2. amphiboly,
3. accent,
4. composition,
5. division

Fallacies of ambiguity

- **Equivocation**
- Using an ambiguous term in more than one sense, thus making the argument misleading.
- The priest told me I should have faith. I actually have faith that my son will do well in school this year. So, I listened to the priest.

Fallacies of ambiguity

- **Amphiboly**
- Using an unclear and ambiguous phrase as a premise of the argument, thus making the argument misleading.
- He donated, along with his wife Mary, 4 millions \$, to the hospital. Therefore, Mary is tax-deductible.

Fallacies of ambiguity

- **Accent**
- Using a sentence whose meaning can shift depending on where the accent falls, thus making the argument misleading.
 - **It's possible** to imagine him doing that. You can bet it
 - It's possible to **imagine** him doing that. You can bet it

Fallacies of ambiguity

- **Composition**
- Inferring that something is true of the whole from the fact that it is true of some (all) part of the whole.
 - Each brick in that building weighs less than a pound. Therefore, the building weighs less than a pound.

Fallacies of ambiguity

- **Division**
- Inferring that something is true of one or more of the parts from the fact that it is true of the whole.
- His house is about half the size of most houses in the neighborhood. Therefore, his doors must all be about 1 meter high.

Inductive fallacies

- Next time!

Exercises

Exercises

- 1. According to R. Grunberger, Nazi publishers used to send the following notice to German readers who let their subscriptions lapse: “Our paper certainly deserves the support of every German. We shall continue to forward copies of it to you, and hope that you will not want to expose yourself to unfortunate consequences in the case of cancellation.
- 2. To know absolutely that there is no God one must have infinite knowledge. But to have infinite knowledge one would have to be God. It is impossible to be God and an atheist at the same time. Atheists cannot prove that God doesn't exist.

Exercises

- 3. Patricia Briggs, who brought the complaint to the city's Animal Welfare Commission, said: "The time of the crustaceans is coming. You'd think people wouldn't care about lobsters, because they aren't cuddly and fuzzy and they have these vacant looks and they don't vocalize. But you'd be surprised how many people care." To which response was given by Astella Kung, proprietor of Ming Kee Game Birds, where fowl are sold live: "How about the homeless people? Why don't the animal people use their energy to care for those people? They have no homes! They are hungry!"
- 4. The universe is spherical in form . . . because all the constituent parts of the universe, that is the sun, moon, and the planets, appear in this form.
Nicolaus Copernicus

Exercises

- 5. Biology professor to skittish students in lab: There is no evidence that frogs actually feel pain; it is true they exhibit pain behavior, but as they have no consciousness, they feel no pain.
- 6. The Soviet news agency Tass declared that the abominable snowman, thought by some to stalk the Himalayan Mountains, does not exist. Tass said that no remains--skull or individual bones--had ever been found and that alleged yeti tracks spotted in the mountains are more likely to be those of other animals distorted by bright sunrays. Moreover, accounts by 'eye witnesses' are the fruit of their imagination. New York Times
- 7. “The Inquisition must have been justified and beneficial, if whole peoples invoked and defended it, if men of the loftiest soul founded and created it severally and impartially, and its very adversaries applied it on their own account, pyre answering to pyre.” (Benedetto Croce)

Exercises

- 8. “The United States policy toward mainland China in the 1980's was surely mistaken because Shirley MacLaine, a well-known actress at the time, emphasized she had grave misgivings about them.” Harry E. T. Thayer
- 9. “Secretary of State John Kerry says that there is less violence than usual in the world right now. Meanwhile the Director of National Intelligence, James Clapper, says the opposite, that terrorism is more violent and dangerous than ever. Since Clapper is Director of National Intelligence, maybe Kerry should have the title Director of National Stupidity.” Thomas Sowell
- 10. Richard P. Feynman, the Nobel Prize winning physicist, has been misunderstood almost all of his life. Since World War II, he came close twice to having a mental breakdown--first with the death of his wife and second with the explosion of the atomic bomb. I think that the Journal of Science should publish some of his later theoretical work out of our kind regard for his memory and from the interest of human concern for his difficult life.

Exercises

- 11. A contradiction to my theory of dream produced by another of my women patients (the cleverest of all my dreamers) was resolved more simply, but upon the same pattern: namely that the nonfulfillment of one wish meant the fulfillment of another. One day I had been explaining to her that dreams are fulfillments of wishes. Next day she brought me a dream in which she was traveling down with her mother-in-law to the place in the country where they were to spend their holidays together. Now I knew that she had violently rebelled against the idea of spending the summer near her mother-in-law and that a few days earlier she had successfully avoided the propinquity she dreaded by engaging rooms in a far distant resort. And now her dream had undone the solution she had wished for; was not this the sharpest contradiction of my theory that in dreams wishes are fulfilled? No doubt; and it was only necessary to follow the dream's logical consequence in order to arrive at its interpretation. The dream showed that I was wrong. Thus it was her wish that I might be wrong, and her dream showed that wish fulfilled . S. Freud