

Logical fallacies assignment



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Logic An argument consists of one or more premises and one conclusion. A premise is a statement that can be either true or false that is offered to support a claim. The claim is the conclusion that can be either true or false.

Arguments can be deductive or inductive. Deductive vs. Inductive A deductive argument is an argument in which the premises appear to provide complete support for the conclusion. An inductive argument is an argument such that the premises appear to provide some degree of support for the conclusion. If the premises actually provide the required degree of support for the conclusion, then the argument is a good one.

A good deductive argument is a valid argument and is such that if all its premises are true, then its conclusion must be true. If all the argument is valid and actually has all true premises, then it is known as a sound argument. If it is invalid or has one or more false premises, it will be unsound. A good inductive argument is such that if the premises are true, the conclusion is likely to be true. In inductive reasoning, the premises may predict a high probability of the conclusion, but they do not ensure that the conclusion is true Fallacies

Logical fallacies are arguments based on faulty reasoning. They often appear true at first, but they do not remain viable under scrutiny. A fallacy is an “argument” in which the premises given for the conclusion do not provide the needed degree of support. A deductive fallacy is a deductive argument that is invalid (it is such that it could have all true premises and still have a false conclusion). An inductive fallacy is less formal than a deductive fallacy. They are arguments which appear to be inductive arguments, but the premises do not provided enough support for the conclusion.

In such cases, even if the premises were true, the conclusion would not be more likely to be true. Logic Argument: Premises and Conclusion Deductive vs. Inductive Logic and Fallacies

1. Deductive argument is an argument in which the premises appear to provide complete support for the conclusion.
2. Inductive argument is an argument such that the premises appear to provide some degree of support for the conclusion.
3. A deductive fallacy is a deductive argument that is invalid (it is such that it could have all true premises and still have a false conclusion).
- 4.

An inductive fallacy is less formal argument which appears to be an inductive argument, but the premises do not provided enough support for the conclusion. In such cases, even if the premises were true, the conclusion would not be more likely to be true. Examples of Fallacies

- I. Deductive Argument
 - a. The law must treat all men as equal.
 - b. Ian and Tim are men.
 - c. The law must treat Ian and Tim equally.
- II. Inductive Argument
 - a. Premise 1: Most American cats are domestic house cats.
 - b. Premise 2: Bill is an American cat.
 - c. Conclusion: Bill is domestic house cat.
- III. Factual Error .
New York City is the capital of the United States.
- IV. Deductive Fallacy
 - a. Premise 1: If Elkton is the capital of Maryland, then it is in Maryland.
 - b. Premise 2: Elkton is in Maryland.
 - c. Conclusion: Elkton is the capital of Maryland.
- V. Inductive Fallacy
 - a. Premise: Having arrived at Paul’s house, I had a delicious piece of homemade Baklava.
 - b. Conclusion: Paul makes delicious desserts.

Common Logical Fallacies: Ad Hominem Attack / Poisoning the Well: Unfavorable information (be it true or false) about person A is presented; therefore any claims person A makes will be false. An attack on a person rather than on his or her ideas) Ex: The Speaker of the House

reminded Congress that George Bush “ didn’t speak Mexican” before they voted on a border patrol bill. Generalization: conclusion based upon inadequate data Ex: In a study of motorists in Cecil County who own Saabs, two of the six had faulty transmissions; therefore, the Saab is a lousy car.

Anecdotal Evidence: generalization based on limited personal experience or hearsay Ex: I once witnessed a Cecil Community College basketball player talking in class; therefore, all basketball players are rude and inconsiderate.

Post Hoc Reasoning: an assumption that because event A preceded event B, event A caused event B Ex: Bailey, Lucky, and Asher came inside. There was suddenly a very foul smell; therefore, a dog must have passed gas. Begging

the Question: circular argument where the conclusion is in essence a restatement or paraphrase of the premise Ex: Television rots your brain because when you watch it, your cognitive functions begin to deteriorate.

Oversimplification / Reductive Reasoning: misrepresentation of a complex concept by reducing it to overly limited terms

Ex: The only thing needed for success in school is taking good notes.

Common Sense Arguments: appeal to common assumptions Ex: Everyone knows that bald men are virile. Bad Syllogism: allegedly deductive assertion based on three statements of paired terms Ex: All Philosophy majors study Socrates. Tim is studying Socrates; therefore, Tim must be a Philosophy major. Faulty Premise: argument in which the reasoning is sound, but it is based upon a false initial statement or assumption Ex: All college students take speech class. Theresa is a college student; therefore, Theresa takes speech class.

Impugning Motives: making an unwarranted claim that the opponent has devious motives Ex: The students only came to class so that they could eat.

Equivocation: using an alternative meaning for a word or phrase Ex: The Labor Party claims that 35% of children in Britain live in poverty. (They define poverty as a household income of less than 60% of the national medium.) **Appeal to Authority:** unwarranted appeal to an authoritative person or organization in support of a proposition Ex: Abstinence is the only acceptable form of birth control because the Pope says so.

False Attribution: appeals to an irrelevant, unqualified, unidentified, biased or fabricated source in support of an argument Ex: In a democratic society, the people elect the best person to the presidency. **False Analogy:** assumption that because two situations are similar, their conclusions will be similar. Ex: Colleges, like businesses, have hierarchical structures; therefore, colleges should be administered like corporations. **False Dichotomy:** limited choice option between two opposite statements, reducing an issue to a spurious either-or choice Ex: Anyone who opposes capital punishment must be pro-crime.

Weasel Words: conditional words that make most any statement true. Ex: If Don continues to do well on his future assignments, he may see a return on his hard work and possibly be accepted into the University of Delaware.

Stacking the Deck: advocate is aware of counter-arguments to his or her position, but conceals them in order to defeat the opponent The White House claims that there is no threat to the environment or the public due to global warming or green house emissions. **Hooray and Boo Words:** advocate uses

emotionally loaded labels to boost his or her position or to denigrate the opponent's position

Ex: Everyone believes in peace, democracy, justice, and equality. No one likes murder, cruelty, liars, or selfishness. If / Then: two unrelated points are conjoined as a single proposition and made conditional upon one another Ex: If there was a God, there would be no cancer. Amy has cancer; therefore, there is no God. Falsification: argument based upon a hypothesis that cannot be tested and must be accepted on faith (usually shrouded in mystery) Ex: In Astrology, those born under the sign of Cancer are emotional and love with great intensity