

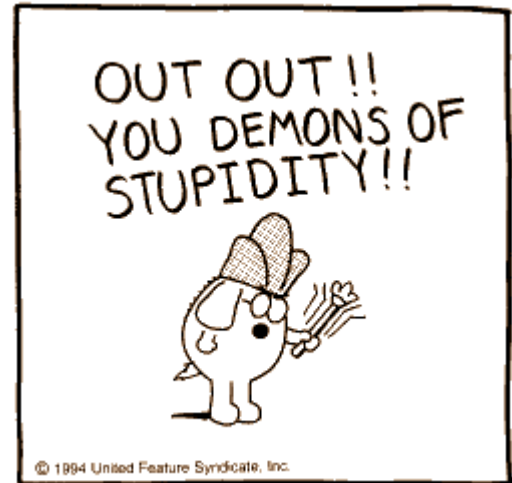
LOGICAL FALLACIES

AUTHOR'S NOTE:

These are the basic logical fallacies, informal and formal. They are drawn from several sources. The informal fallacies are more likely to be useful, especially when you are debating with someone else. If you learn the fallacies and become fluent in them you will be able to quickly spot the use of logical fallacies in someone else's reasoning, or even your own! Note: A fallacy is a deceptive, false, or misleading argument, notion, belief, etc.

The basic format of this list (and of the stack), is (1) the formal name of the fallacy (usually its Latin name), followed by (2) a description of the fallacy.

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The temptation among all of us is to chalk up the value of the enclosed fallacies of logic to purely academic exercises. However, to do so would be a grievous error.

Logic is not just the "rules" of validity and soundness, but it is also the straightest and most conducive path to practical communication. Meaning, the enclosed should *not* be exclusively viewed as a weapon against your dialogue opponent, but rather also as a tool for the examination of your own assertions.

When I first started in Philosophy my Professor of Logic said to our class --

"Learn the fallacies and learn them well. So well that immediately when you hear one, a red flag goes up, sirens sound, and lights flash. Then stop. Examine what is being said, and you will know how to reply. And if it is you saying it, ask yourself if you must say it that way. And still further yet, if your answer is in the affirmative, stop your argument there. For the argument is yet to be conceived that is more important than honesty and integrity."

Words to live by.

Kevin W. Walker, B.A.(Phil.),

LIST OF LOGICAL FALLACIES:

ACCENTUS

Description: A Fallacy of Ambiguity, where the ambiguity arises from the emphasis (accent) placed on a word or phrase.

AFFIRMATION OF THE CONSEQUENT

Description: An argument from the truth of a hypothetical statement, and the truth of the consequent to the truth of the antecedent. In the syllogism below, P is the antecedent and Q is the consequent:

P implies Q
 Q is true <-- Affirming the consequent
 Therefore: P is true

AMBIGUITY

Description: An argument in the course of which at least one term is used in different senses. Also known as equivocation. There are several types of "fallacies of ambiguity," including REIFICATION, EQUIVOCATION, AMPHIBOLY, COMPOSITION, DIVISION, and ACCENTUS.

AMPHIBOLY

Description: A type of Fallacy of Ambiguity where the ambiguity involved is of an "amphibolous" (equivocal, uncertain) nature. Amphiboly is a syntactic error. The fallacy is caused by faulty sentence structure, and can result in a meaning not intended by the author. "The department store now has pants for men with 32 waists." (How many waists do you have? I have only one!)

ARGUMENTUM AD ANTIQUITAM

Description: A fallacy of asserting that something is right or good simply because it is old; that is, because "that's the way it's always been."

ARGUMENTUM AD BACULUM

Description: An argument that resorts to the threat of force to cause the acceptance of the conclusion. Ad baculum arguments also include threats of fear to cause acceptance (e.g., "Do this or you'll go to Hades when you die!" or "Might makes right.").

ARGUMENTUM AD CRUMENAM

Description: Fallacy of believing that money is a criterion of correctness; that those with more money are more likely to be right.

ARGUMENTUM AD HOMINEM

Description: An argument that attempts to disprove the truth of what is asserted by attacking the speaker rather than the speaker's argument. Another way of putting it: Fallacy where you attack someone's character instead of dealing with salient issues. There are two basic types of ad hominem arguments: (1) abusive, and (2) circumstantial.

ARGUMENTUM AD IGNORANTIAM

Description: An argument that a proposition is true because it has not been shown to be false, or vice versa. Ad ignorantium arguments are also known as "appeals to ignorance." This fallacy has two forms:

1. P is true, because it has not been proven false.
2. P is false, because it has not been proven true.

ARGUMENTUM AD LAZARUM

Description: A fallacy of assuming that because someone is poor he or she is sounder or more virtuous than one who is wealthier. This fallacy is the opposite of the informal fallacy "argumentum ad crumenam."

ARGUMENTUM AD MISERICORDIAM

Description: An argument that appeals to pity for the sake of getting a conclusion accepted.

ARGUMENTUM AD NAUSEUM

Description: The incorrect belief that an assertion is more likely to be true the more often it is heard. An "argumentum ad nauseum" is one that employs constant repetition in asserting a truth.

ARGUMENTUM AD NOVITAM **Description:** A fallacy of asserting that something is more correct simply because it is new or newer than something else. Or that something is better because it is newer. This type of fallacy is the opposite of the "argumentum ad antiquitatem" fallacy.

ARGUMENTUM AD NUMERAM

Description: A fallacy that asserts that the more people who support or believe a proposition then the more likely that that proposition is correct; it equates mass support with correctness.

ARGUMENTUM AD POPULUM

Description: An argument that appeals to the beliefs of the multitude (i.e., the "populace").
Another way of putting it: Speaker deals with passions of audience rather than with salient issues. This fallacy is also known as "Appeal to Tradition" Ad populum arguments often occur in (1) propoganda, (2) demagoguery, and (3) advertising.

ARGUMENTUM AD VERECUNDIAM

Description: An argument in which an authority is appealed to on matters outside his/her field of authority. "Ad verecundiam" also refers to a fallacy of simply resorting to appeals to authority.

BEGGING THE QUESTION (CIRCULAR REASONING)

Description: An argument that assumes as part of its premises the very conclusion that is supposed to be true. Another way of saying this is: Fallacy of assuming at the onset of an argument the very point you are trying to prove. The fallacy is also sometimes referred to as

"Circulus in Probando." This Fallacy is also known by the Latin "PETITIO PRINCIPII".

BIFURCATION

Description: Also referred to as the "black and white" fallacy, bifurcation is the presentation of a situation or condition with only two alternatives, whereas in fact other alternatives exist or can exist.

COMPOSITION

Description: An argument in which one assumes that a whole has a property solely because its various parts have that property. Composition is a type of Fallacy of Ambiguity.

CONVERTING A CONDITIONAL

Description: If P then Q, therefore, if Q then P.

CUM HOC ERGO PROPTER HOC

Description: A fallacy of correlation that links events because they occur simultaneously; one asserts that because two events occur together they are causally related, and leaves no room for other factors that may be the cause(s) of the events. This fallacy is similar to the "post hoc" fallacy.

DENIAL OF THE ANTECEDENT

Description: An argument in which one infers the falsity of the consequent from the truth of a hypothetical proposition, and the falsity of its antecedent.

P implies Q

Not-P

Therefore: Not-Q

DIVISION

Description: An argument in which one assumes that various parts have a property solely because the whole has that same property. Division is a type of Fallacy of Ambiguity.

EQUIVOCATION

Description: An argument in which an equivocal expression is used in one sense in one premise and in a different sense in another premise, or in the conclusion. Equivocal means (1) of uncertain significance; not determined, and (2) having different meanings equally possible. Equivocation is a type of Fallacy of Ambiguity. The opposite of equivocation is "unovocation," in which a word always carries the same meaning through a given context.

FALLACY OF INTERROGATION

Description: The question asked has a presupposition which the answerer may wish to deny, but which he/she would be accepting if he/she gave anything that would count as an answer. Any

answer to the question "Why does such-and-such happen?" presupposes that such-and-such does indeed happen.

FALSE ANALOGY

Description: An analogy is a partial similarity between the like features of two things or events on which a comparison can be made. A false analogy involves comparing two things that are NOT similar. Note that the two things may be similar in superficial ways, but not with respect to what is being argued.

HASTY GENERALIZATION (SECUNDUM QUID)

Description: An argument in which a proposition is used as a premise without attention given to some obvious condition that would affect the proposition's application. This fallacy is also known as the "hasty generalization." It is a fallacy that takes evidence from several, possibly unrepresentative, cases to a general rule; generalizing from few to many. Note the relation to statistics: Much of statistics concerns whether or not a sample is representative of a larger population. The larger the sample size, the better the representativeness. Note also that the opposite of a hasty generalization is a sweeping generalization.

IGNORATIO ELENCHI

Description: An argument that is supposed to prove one proposition but succeeds only in proving a different one. Ignoratio elenchi stands for "pure and simple irrelevance."

ILLICIT PROCESS

Description: A syllogistic argument in which a term is distributed in the conclusion, but not in the premises. One of the rules for a valid categorical syllogism is that if either term is distributed in the conclusion, then it must be distributed in the premises. There are two types of Illicit Process: Illicit Process of the Major Term and Illicit Process of the Minor Term.

PLURIUM INTERROGATIONUM-MANY QUESTIONS

Description: A demand for a simple answer to a complex question.

NON CAUSA PRO CAUSA

Description: An argument to reject a proposition because of the falsity of some other proposition that seems to be a consequence of the first, but really is not.

NON-SEQUITUR

Description: An argument in which the conclusion is not a necessary consequence of the premises. Another way of putting this is: A conclusion drawn from premises that provide no logical connection to it.

PETITIO PRINCIPII

Description: Same as "Begging the Question" The argument assumes its conclusion is true but

DOES NOT SHOW it to be true. Petitio principii has two forms:

1. P is true, because P is true.
2. P is true, because A is true. And A is true because B is true. And B is true because P is true.

POST HOC, ERGO PROPTER HOC

Description: An argument from a premise of the form "A preceded B" to a conclusion of the form "A caused B." Simply because one event precedes another event in time does not mean that the first event is the cause of the second event. This argument resembles a fallacy known as a Hasty Generalization.

QUATERNIO TERMINORUM

Description: An argument of the syllogistic form in which there occur four or more terms. In a standard categorical syllogism there are only three terms: a subject, a predicate, and a middle term.

RED HERRING

Description: A fallacy when irrelevant material is introduced to the issue being discussed, such that everyone's attention is diverted away from the points being made, and toward a different conclusion. It is not logically valid to divert a chain of reasoning with extraneous points.

REIFICATION

Description: To reify something is to convert an abstract concept into a concrete thing. Reification is a Fallacy of Ambiguity. Reification is also sometimes known as a fallacy of "hypostatization".

SHIFTING THE BURDEN OF PROOF

Description: The burden of proof is always on the person making the assertion or proposition. Shifting the burden of proof, a special case of "argumentum ad ignorantium," is a fallacy of putting the burden of proof on the person who denies or questions the assertion being made. The source of the fallacy is the assumption that something is true unless proven otherwise.

SPECIAL PLEADING

Description: Special pleading is a logical fallacy wherein a double standard is employed by the person making the assertion. Special pleading typically happens when one insists upon less strict treatment for the argument he/she is making than he or she would make when evaluating someone else's arguments.

STRAW MAN

Description: It is a fallacy to misrepresent someone else's position for the purposes of more easily attacking it, then to knock down that misrepresented position, and then to conclude that the original position has been demolished. It is a fallacy because it fails to deal with the actual arguments that one has made.

SWEEPING GENERALIZATION

Description: Also known by the Latin term "DICTO SIMPLICITER", a Sweeping Generalization occurs when a general rule is applied to a particular situation in which the features of that particular situation render the rule inapplicable. A sweeping generalization is the opposite of a hasty generalization.

TWO WRONGS MAKE A RIGHT (TU QUOQUE)

Description: Two wrongs never add up to a right; you cannot right a wrong by applying yet another wrong. Such a fallacy is a misplaced appeal to consistency. It is a fallacy because it makes no attempt to deal with the subject under discussion.

UNDISTRIBUTED MIDDLE

Description: A syllogistic argument in which the middle term of a categorical syllogism is not distributed in at least one of the premises.

A FEW EXAMPLES:

Ad Hominem:

This is the best logical fallacy, and if you disagree with me, well, you suck.

Appeal To False Authority:

Your logical fallacies aren't logical fallacies at all because Einstein said so. Einstein also said that this one is better.

Appeal To Emotion:

See, my mom, she had to work three jobs on account of my dad leaving and refusing to support us, and me with my elephantitis and all, all our money went to doctor's bills so I never was able to get proper schooling. So really, if you look deep down inside yourself, you'll see that my fallacy here is the best.

Appeal to Fear:

If you don't accept Appeal to Fear as the greatest fallacy, then THE TERRORISTS WILL HAVE WON. Do you want that on your conscience, that THE TERRORISTS WILL HAVE WON because you were a pansy who didn't really think that Appeal to Fear was worth voting for, and you wanted to vote for something else? Of course not, and neither would the people you let die because THE TERRORISTS WILL HAVE WON.

Appeal To Force:

If you don't agree that Appeal to Force is the greatest logical fallacy, I will kick your ass.

Appeal To Majority:

Most people think that this fallacy is the best, so clearly it is.

Appeal To Novelty:

The Appeal to Novelty's a new fallacy, and it blows all your crappy old fallacies out the water! All the cool kids are using it: it's OBVIOUSLY the best.

Appeal To Numbers:

Millions think that this fallacy is the best, so clearly it is.

Appeal To Tradition:

We've used Appeal to Tradition for centuries: how can it possibly be wrong?

Argumentum Ad Nauseum:

Argumentum ad nauseum is the best logical fallacy.

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Begging The Question:

Circular reasoning is the best fallacy and is capable of proving anything.

Since it can prove anything, it can obviously prove the above statement.

Since it can prove the first statement, it must be true.

Therefore, circular reasoning is the best fallacy and is capable of proving anything.

Burden Of Proof:

Can you prove that Burden of Proof isn't the best logical fallacy?

Complex Question:

Have you stopped beating your wife and saying Complex Question isn't the best fallacy?

False Dilemma:

I've found that either you think False Dilemma is the best fallacy, or you're a terrorist.

False Premise:

All of the other fallacies are decent, but clearly not the best as they didn't come from my incredibly large and sexy brain.

Gambler's Fallacy:

In all the previous talks about this subject, Gambler's Fallacy won, so I just know the Gambler's Fallacy is going to win this time!

Guilt By Association:

You know who else preferred those other logical fallacies?

(insert pictures of Hitler, Stalin, and Pol Pot here)

Non Sequitur:

Non Sequitur is the best fallacy because none of my meals so far today have involved asparagus.

Post Hoc/False Cause:

Since I've started presuming that correlation equals causation, violent crime has gone down 54%.

Red Herring:

They say that to prove your fallacy is the best requires extraordinary evidence, because it's an extraordinary claim. Well, I'd like to note that "Extraordinary claims demand extraordinary evidence" is itself an extraordinary claim.

Relativism:

Well maybe all those other fallacies are the best for you, but to me, the relativist fallacy is the greatest logical fallacy ever.

Slippery Slope:

If you don't like Slippery Slope arguments, you will do poorly in class, drop out of school, commit crimes, go to prison, and die of AIDS.

Special Pleading:

I know that everyone is posting about their favorite fallacies, but Special Pleading is out-and-out the best, so it should just win with no contest.

(Via Brian McGroarty.)



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