

## LOGICAL FALLACIES

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<u>Fallacy</u>	<u>Example(s)</u>
<b>Fallacies of Relevance: the premises are not relevant to the conclusion.</b>	
<p><b>Argumentum ad ignorantiam</b> (argument to ignorance): an argument based on a person's ignorance or inability to prove his or her point, i.e., arguing that something is true because it has not been proved false or false because it has not been proved true; in some situations, this may have strong argumentative force.</p>	<p>(1) If funds have disappeared from a company's assets but one cannot prove that they have been embezzled, it would be fallacious to conclude that there is no embezzler.</p> <p>(2) If tests on, say, mice have shown that a certain drug has no toxic effect on mice, it would be fallacious to conclude that it has no toxic effect on humans.</p> <p>[Note: there is one special context in which the argumentum ad ignorantiam is appropriate, namely, in a criminal court in which the inability to prove guilt is taken as equivalent to establishing innocence, at least legal innocence.]</p>
<p><b>Argumentum ad verecundiam</b> (argument to shyness or modesty): an argument, which relies on the prestige of some impressive name rather than on the independent consideration of the question at issue.</p>	<p>(1) "But can you doubt that air has weight when you have the clear testimony of Aristotle affirming that all the elements have weight, including air, and excepting only fire?" [Salviati in Galileo Galilei, <i>Dialogues Concerning Two New Sciences</i>, tr. Henry Crew &amp; Alfonso De Salvio (NY, Dover, 1914), 77]</p> <p>(2) Numerous examples of this can be found in the 'testimonials' that are used in advertising to promote products, e.g., the notion that you should drive a certain automobile or wear a certain sneaker because a famous professional basketball player drives that automobile or wears that sneaker.</p>
<p><b>Complex Question:</b> asking a question in a way, which presupposes the truth of a conclusion implicit in the question or hidden in the question as a whole.</p>	<p><i>Lawyer:</i> There is evidence that your sales increased as a result of your misleading advertising claims. Is that correct?</p> <p><i>Witness:</i> Our sales did not increase!</p> <p><i>Lawyer:</i> Aha! Then you admit that your advertising claims were misleading. How long have you been engaged in such illegal deceptive business practices?</p>
<p><b>Argumentum ad hominem</b> (argument to the human): an attack (abusive or circumstantial) against one's opponent rather than an attack against the issue which one's opponent is presenting; the abusive type of this argument is sometimes called 'guilt by association' or 'the genetic fallacy,' while the circumstantial type is sometimes called 'poisoning the well.'</p>	<p>(1) [<i>abusive</i>] "When we came to this point in the argument and it was evident to everyone that the argument about the just had turned around in the opposite direction, Thrasymachus, instead of answering, said, "Tell me, Socrates, do you have a wet nurse?" "Why this?" I said. "Should you not answer instead of asking such things?" "Because," he said, "you know she neglects your sniveling nose and does not give it the wiping you need, since it is her fault you do not even recognize sheep or shepherd." [Plato, <i>Republic</i> 343a, tr. Allan Bloom (NY, Basic, 1968)]</p> <p>(2) [<i>circumstantial</i>] "It is pathetic to see Professor Kerkvliet, a non-Filipino, deploring political and social conditions in a foreign country like the Philippines when his own country calls for social and moral regeneration." [Vincente Romero, Consul General, Philippine consulate general, letter to the editor, <i>The Honolulu Advertiser</i>, December 5, 1974]</p>

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<p><b>Accident:</b> the misapplication of a generalization to inappropriate individual cases, i.e., moving too carelessly <i>from</i> a general statement to a possible example of it.</p>	<p>Examples of this are those instances when we take a statement which is generally true and assume that it is universally true, but this does not mean that it is never moral to lie, e.g., it is generally true that it is not moral to lie, but if a Jew is hiding in a certain location, and a Nazi SS trooper is asking you whether a Jew is in that location, it is moral to lie to protect the life of the Jew.</p>
<p><b>Converse accident:</b> the misapplication of an individual case to an inappropriate generalization, i.e., moving too carelessly <i>to</i> a general statement from a possible example of it.</p>	<p>Stereotypes are good examples of this, because in a stereotype we draw conclusions about all persons in a certain category from what may be true about one or a few members of that category.</p>
<p><b>Non causa pro causa</b> (not the cause for the cause): a misdetermination of the cause of something; also called 'false cause;' e.g., post hoc ergo propter hoc (after this therefore on account of this).</p>	<p>(1) "Which is more useful, the Sun or the Moon? The Moon is more useful since it gives us light during the night, when it is dark, whereas the Sun shines only in the daytime, when it is light anyway." [George Gamow, as a joke, inscribed in the entry hall of the Hayden Planetarium of New York City]                  (2) "Benjamin Fernandez, a candidate for the Republican presidential nomination, was born in a converted boxcar in Kansas City, to Mexican immigrants, 53 years ago. When he was asked why he is a Republican, he said that when he was in college in California, someone told him that the Republican Party was the party of rich people, to which he replied, 'Sign me up! I've had enough of poverty.'" [George F. Will, <i>Washington Post</i>, August 23, 1979]</p>
<p><b>Petitio principii</b> (seeking of the first-beginning): an attack from the beginning; also called 'begging the question,' i.e., assuming the truth of what one should be trying to prove; this is also sometimes called circular reasoning; those who fall into this error often do not know that they have assumed what they are supposed to be proving.</p>	<p>(1) "And we must trust those who have uttered before that they are the progeny of the gods, as they assert, and how could they not distinctly envision their own progenitors? Therefore, it is impossible to distrust the children of the gods...." [Timaeus, in Plato, <i>Timaeus</i>, 40d-e]                  (2) "'I'm all for women having equal rights,' said Bullfight Association president Paco Camino. 'But I repeat, women should not fight bulls because a bullfighter is and should be a man.'" [<i>San Francisco Chronicle</i>, March 28, 1972]                  (3) "People who like this sort of thing will find this the sort of thing they like." [Abraham Lincoln about a book that he had just read, reported by G. W. E. Russell, <i>Collections and Recollections</i>, ch. 30]</p>
<p><b>Argumentum ad populum</b> (argument to the people): arguing to the lower nature of the audience rather than to its intellect.</p>	<p>(1) The speeches of Adolf Hitler in Nazi Germany.                  (2) Any contemporary advertisement which suggests that we ought to buy a certain product because it is 'new' or 'sexy' or 'best-selling' or associated with wealth or associated with power.                  (3) "The Inquisition must have been justified and beneficial, if whole peoples invoked and defended it, if men of the loftiest souls founded and created it...and its very adversaries applied it on their own account...." [Benedetto Croce, <i>Philosophy of the Practical</i>]</p>

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<p><b>Argumentum ad misericordiam</b> (argument to heartfelpity): an appeal to the emotions of the audience (a special case of the <b>argumentum ad populum</b>).</p>	<p>(1) The closing speeches of defense attorneys in jury trials.                  (2) The apocryphal (and humorously meant) story of the trial of a youngster who was accused of murdering his mother and father with an ax. When he was presented with the overwhelming evidence proving his guilt, he pleaded for leniency or mercy on the grounds that he was an orphan.</p>
<p><b>Argumentum ad crumenam</b> (argument to the purse): arguing on the basis of a person’s selfish interests (a special case of the <b>argumentum ad populum</b>).</p>	<p>The speeches of legislators in the Senate and the House of Representatives when they argue for (or against) a certain piece of legislation.</p>
<p><b>Argumentum ad invidiam</b> (argument to envy): arguing on the basis of prejudices or low emotions (a special case of the <b>argumentum ad populum</b>).</p>	<p>The speeches of the leaders of mobs when they wish to stir the mob to action.</p>
<p><b>Argumentum ad iudicium</b> (argument to judgment): arguing on the basis of common sense (a special case of the <b>argumentum ad populum</b>).</p>	<p>The arguments that parents use to convince their children to do things that the children resist.</p>
<p><b>Argumentum ad baculum</b> (argument to the stick): an appeal to force.</p>	<p>“I was seven years old when the first election campaign, which I can remember, took place in my district. At that time we still had no political parties, so the announcement of this campaign was received with very little interest. But popular feeling ran high when it was disclosed that one of the candidates was ‘the Prince’.... He was the owner of the great estate.... About eight thousand families (that is, the majority of the local population) are still employed today in cultivating the estate’s fourteen thousand hectares. The Prince was deigning to solicit ‘his’ families for their vote so that he could become their deputy in parliament. The agents of the estate, who were working for the Prince, talked in impeccably liberal phrases: ‘Naturally,’ said they, ‘naturally, no one will be forced to vote for the Prince, that’s understood; in the same way that no one, naturally, can force the Prince to allow people who do not vote for him to work on his land.” [Ignazio Silone, <i>The God That Failed</i>]</p>
<p><b>Ignoratio elenchi</b> (ignorance of the cross-examination = ignorance of the point in dispute): providing the appearance of a refutation by arguing against and refuting an unraised point or by arguing for and proving a different conclusion from the one that is at issue; also called ‘irrelevant conclusion.’</p>	<p>“The sage expresses joy at things which properly call for joy, and anger at things which properly call for anger. Therefore, the joy and anger of the sage are not connected with his mind, but with things.” [Ch’eng Hao, quoted in Fung Yu-lan, <i>A History of Chinese Philosophy</i>]</p>

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<b>Fallacies of Ambiguity:</b> <b>the statement of them contains ambiguous (meaning-shifting) words or phrases;</b> <b>sometimes called 'sophisms.'</b>	
<p><b>Equivocation:</b> confusing (accidentally or deliberately) the meaning of a word or phrase.</p>	<p>“‘I see nobody on the road,’ said Alice. ‘I only wish I had such eyes,’ the King remarked in a fretful tone. ‘To be able to see Nobody! And at that distance too! Why, it’s as much as I can do to see real people, by this light!’” [Lewis Carroll, <i>Through the Looking Glass</i>, ch. VII]</p>
<p><b>Amphiboly:</b> arguing from misleading grammatical constructions.</p>	<p>(1) In the <i>Fort Worth Star-Telegram</i>, there is an ad in the classified section that declares “Find a job in your pajamas.” Well, I have been looking in my pajamas for over two years now, and I have not found a job yet.                  (2) “This morning I shot an elephant in my pajamas. What he was doing in my pajamas, I will never know.” [Groucho Marx]</p>
<p><b>Accent:</b> misarguing from a shift in emphasis on words or parts.</p>	<p>Depending on where one places the stress, the statement “Woman without her man would be lost” might be acceptable to either sex.</p>
<p><b>Composition:</b> arguing from the attributes of the parts of a whole (the individual elements of a collection) to the attributes of the whole (the collective or totality of these elements/parts).</p>	<p>(1) “All phenomena in the universe are saturated with moral values. Therefore, the universe is a moral universe.” [Thomas H. Fang, <i>The Chinese View of Life</i>]                  (2) This is a very heavy machine. Therefore, each of its parts must be very heavy.</p>
<p><b>Division:</b> the reverse of the fallacy of composition: arguing from the attributes of a whole (a collective or totality of elements/parts) to the attributes of the parts of the whole (the individual elements of the collection).</p>	<p>(1) Improbable events happen almost every day, but what happens almost every day is a probable event. Therefore, improbable events are probable events.                  (2) Thomas Carlyle said of Walt Whitman that he thinks that he is a big poet because he comes from a big country.                  (3) American Indians are disappearing. That man is an American Indian. Therefore, that man is disappearing.</p>

**Argumentum ad rem** (argument to the thing): arguing on the basis of the thing itself, i.e., on the basis of the actual point at issue: NOT A FALLACY.

**Argumentum ad absurdum** (argument to the absurd): in order to prove a statement, we assume that the statement is false, and then we show that such an assumption leads to a false or contradictory conclusion; also called **reductio ad absurdum** (reduction to the absurd) or ‘indirect proof’: NOT A FALLACY.