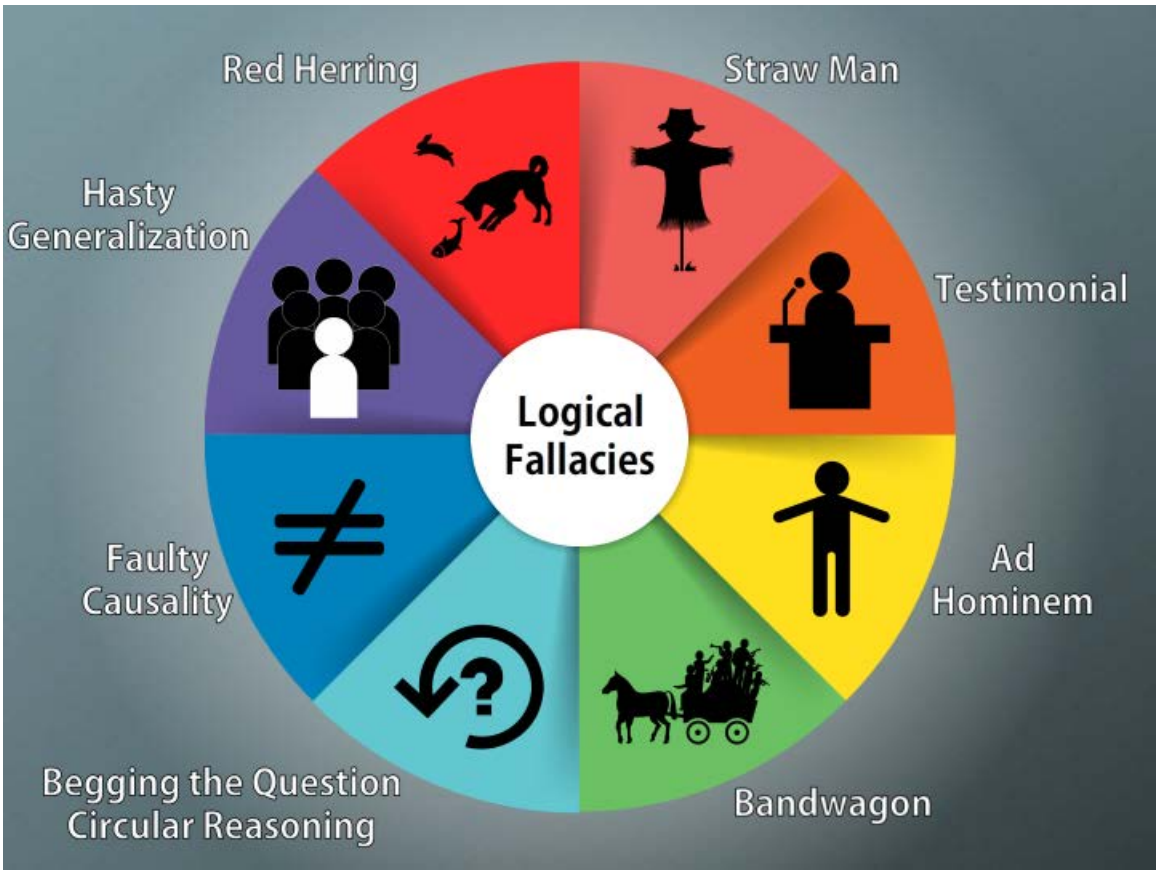
Module 9: Nonfiction
Topic 4 Content: Logical Fallacies

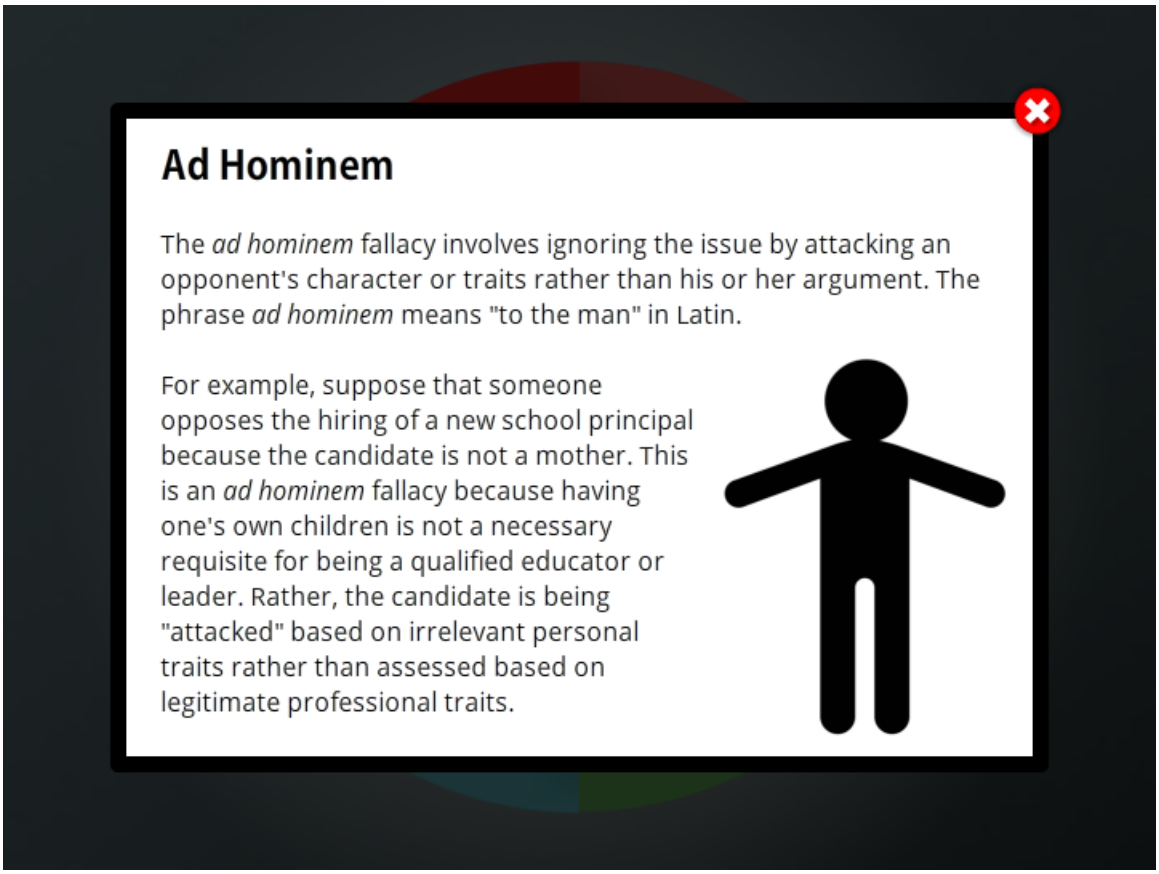
Introduction



How often do you win debates with your friends, teachers, or family members? Is it ever acceptable to trick your way into winning an argument? Have you ever felt that an argument or claim was faulty, but you could not pinpoint exactly why? If so, you may have encountered a logical fallacy, or faulty argument.

Logical fallacies attempt to trick you into thinking a weak argument appears strong by using illegitimate arguments or irrelevant points. Fallacies are easily identified in arguments because they lack real evidence to support their claims. Take a moment to explore some common faulty arguments along with examples. In this interactivity, click each segment of the circle diagram to learn more about logical fallacies.

Ad Hominem



The *ad hominem* fallacy involves ignoring the issue by attacking an opponent's character or traits rather than his or her argument. The phrase *ad hominem* means "to the man" in Latin.

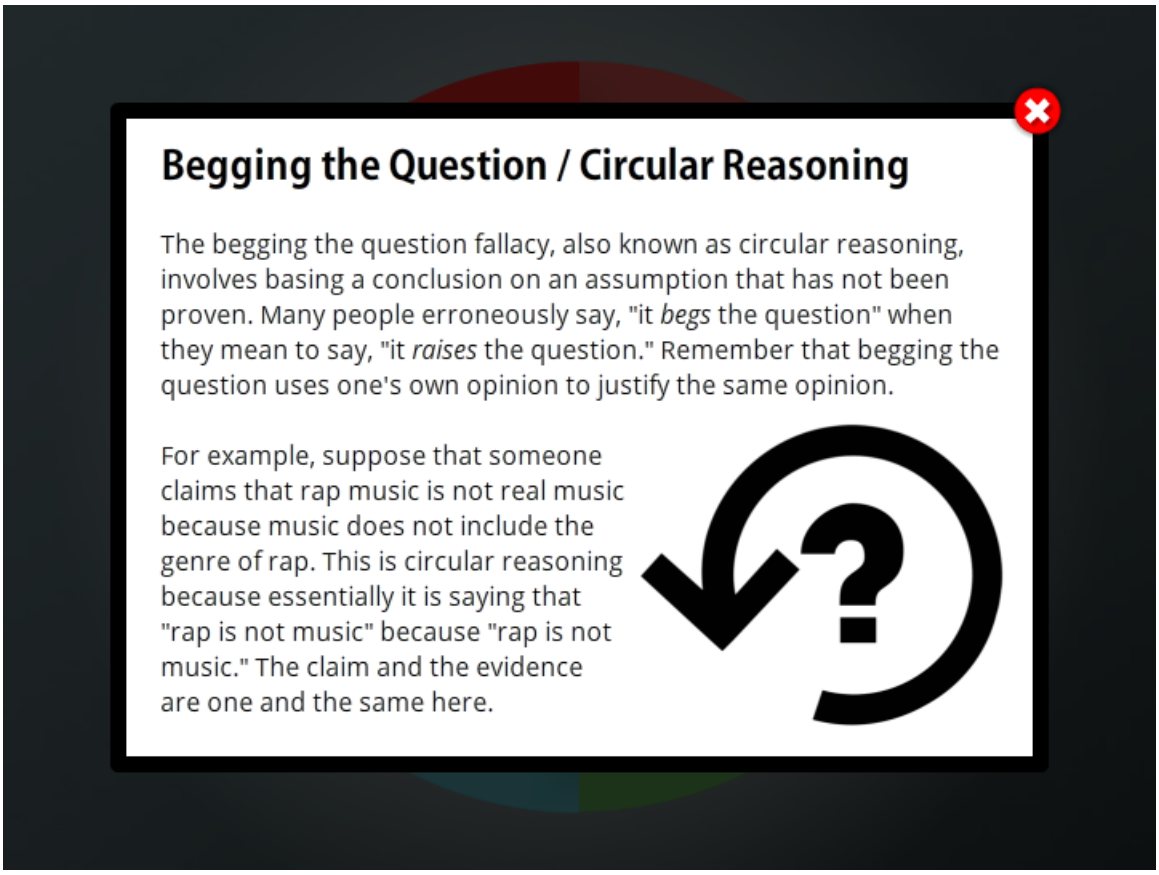
For example, suppose that someone opposes the hiring of a new school principal because the candidate is not a mother. This is an *ad hominem* fallacy because having one's own children is not a necessary requisite for being a qualified educator or leader. Rather, the candidate is being "attacked" based on irrelevant personal traits rather than assessed based on legitimate professional traits.

Bandwagon

The bandwagon fallacy involves encouraging someone to take action or accept a belief simply because everyone else is doing so. This fallacy plays on people's fear of being "the odd ball" of the group who does not conform to what society considers acceptable. It also taps into people's fear of missing out or being excluded.

For example, suppose that you feel compelled to buy the new high-tech smartphone because it seems everyone else has it and you do not want to be the last one to "jump on the bandwagon."

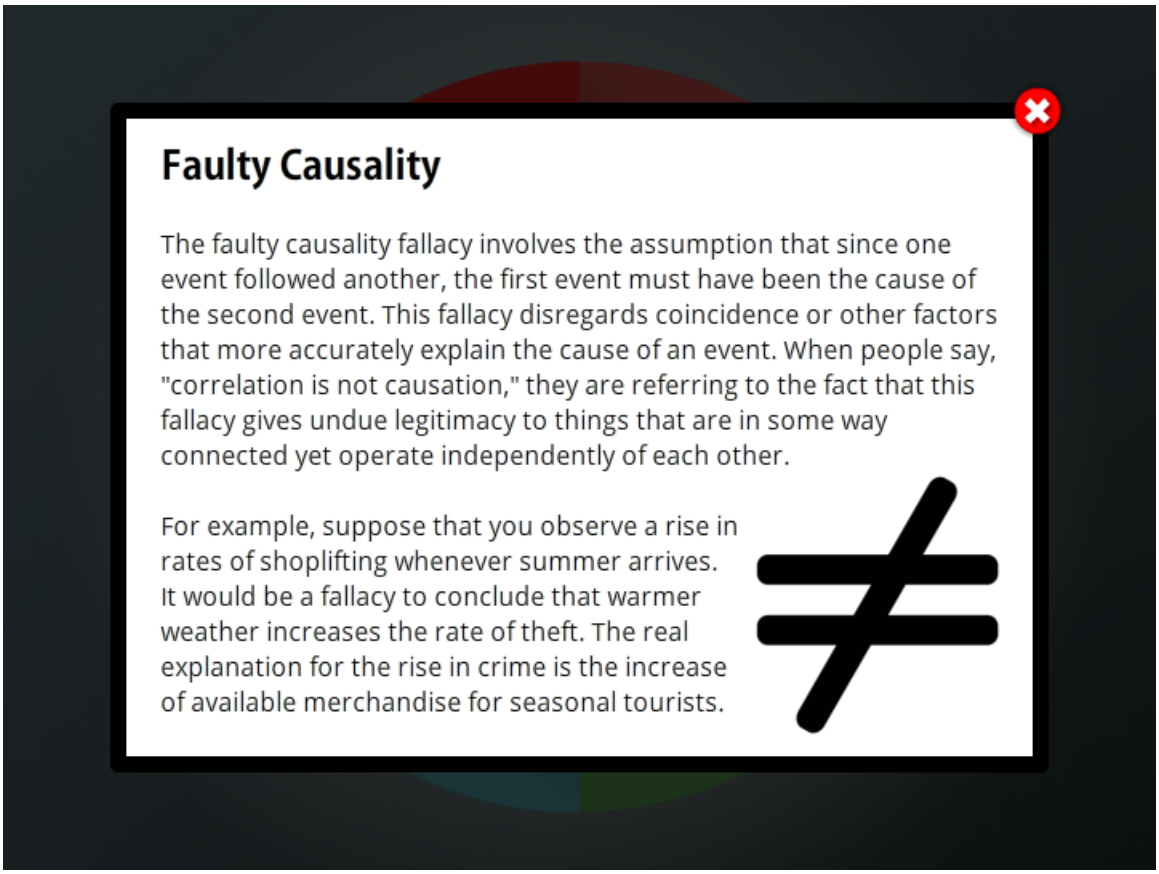
Begging the Question / Circular Reasoning



The begging the question fallacy, also known as circular reasoning, involves basing a conclusion on an assumption that has not been proven. Many people erroneously say, "it *begs* the question" when they mean to say, "it *raises* the question." Remember that begging the question uses one's own opinion to justify the same opinion.

For example, suppose that someone claims that rap music is not real music because music does not include the genre of rap. This is circular reasoning because essentially it is saying that "rap is not music" because "rap is not music." The claim and the evidence are one and the same here.

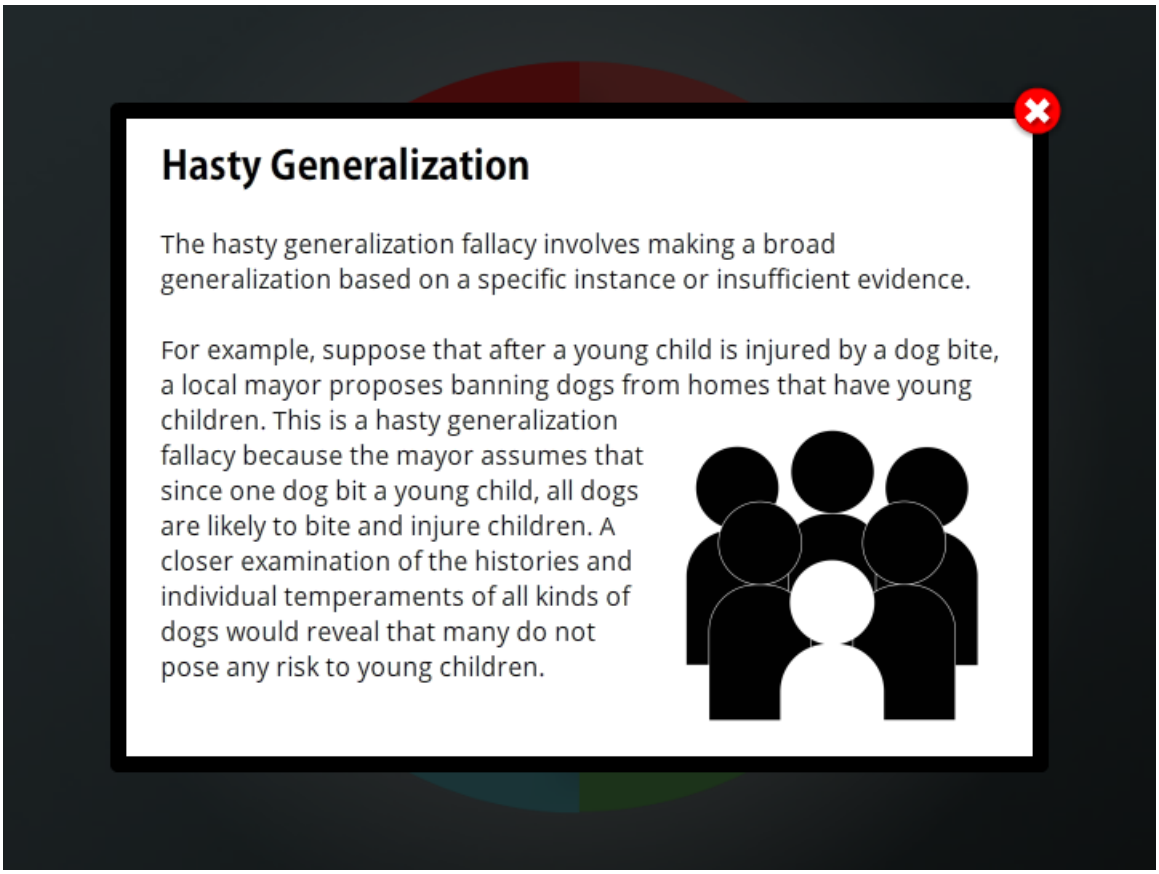
Faulty Causality



The faulty causality fallacy involves the assumption that since one event followed another, the first event must have been the cause of the second event. This fallacy disregards coincidence or other factors that more accurately explain the cause of an event. When people say, "correlation is not causation," they are referring to the fact that this fallacy gives undue legitimacy to things that are in some way connected yet operate independently of each other.

For example, suppose that you observe a rise in rates of shoplifting whenever summer arrives. It would be a fallacy to conclude that warmer weather increases the rate of theft. The real explanation for the rise in crime is the increase of available merchandise for seasonal tourists.

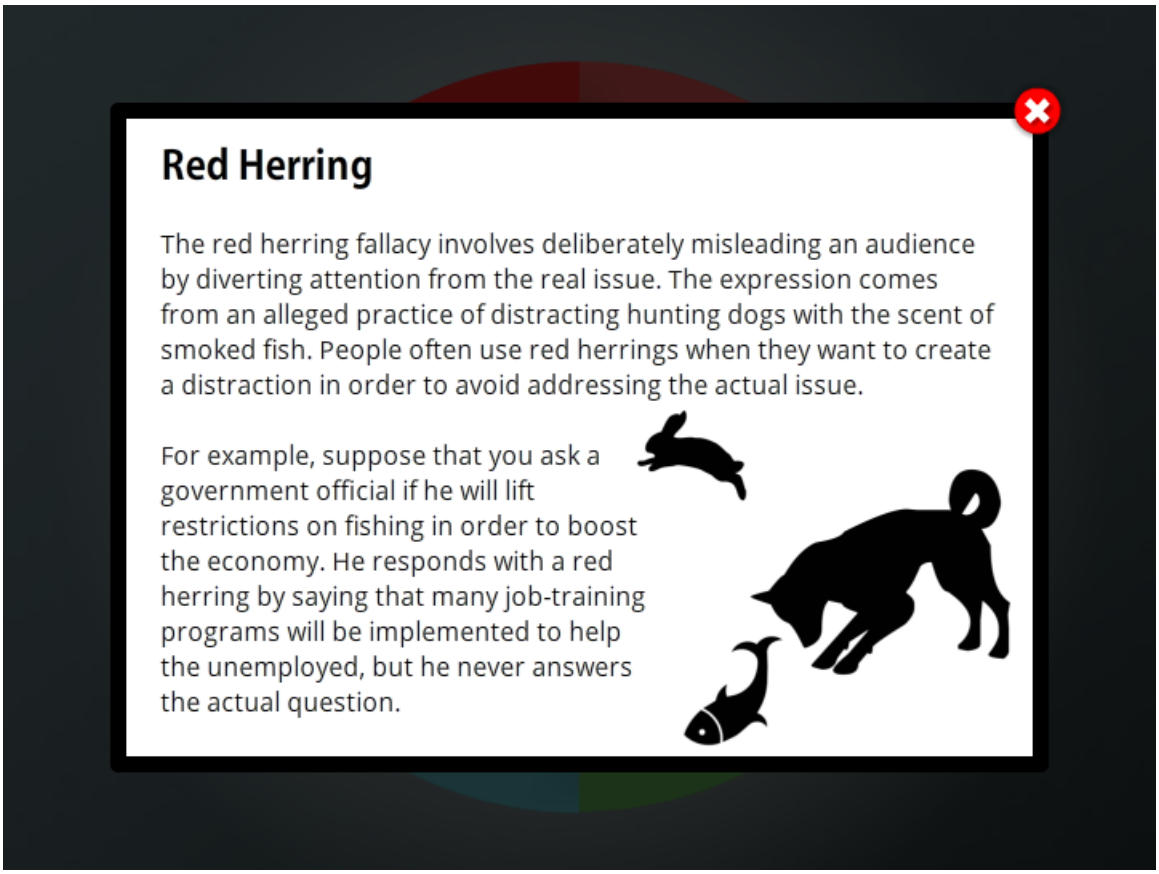
Hasty Generalization



The hasty generalization fallacy involves making a broad generalization based on a specific instance or insufficient evidence.

For example, suppose that after a young child is injured by a dog bite, a local mayor proposes banning dogs from homes that have young children. This is a hasty generalization fallacy because the mayor assumes that since one dog bit a young child, all dogs are likely to bite and injure children. A closer examination of the histories and individual temperaments of all kinds of dogs would reveal that many do not pose any risk to young children.

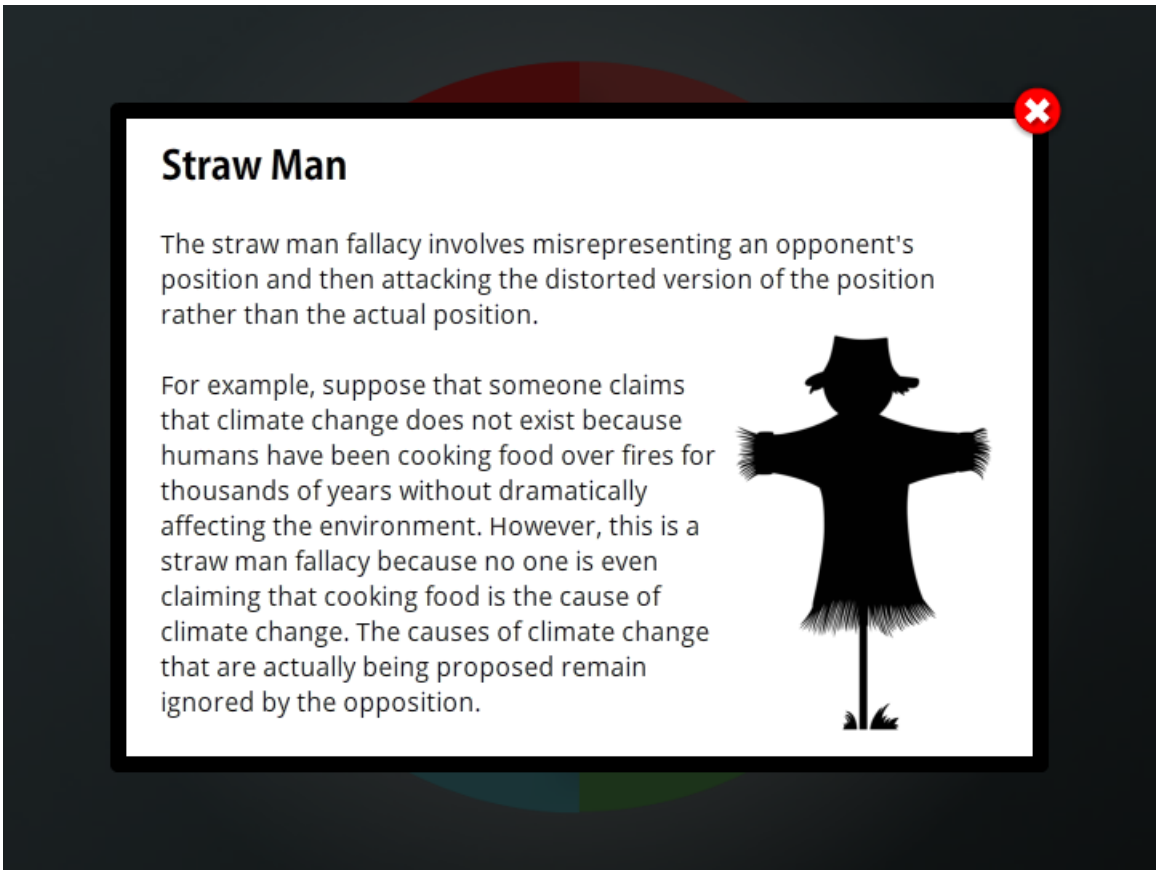
Red Herring



The red herring fallacy involves deliberately misleading an audience by diverting attention from the real issue. The expression comes from an alleged practice of distracting hunting dogs with the scent of smoked fish. People often use red herrings when they want to create a distraction in order to avoid addressing the actual issue.

For example, suppose that you ask a government official if he will lift restrictions on fishing in order to boost the economy. He responds with a red herring by saying that many job-training programs will be implemented to help the unemployed, but he never answers the actual question.

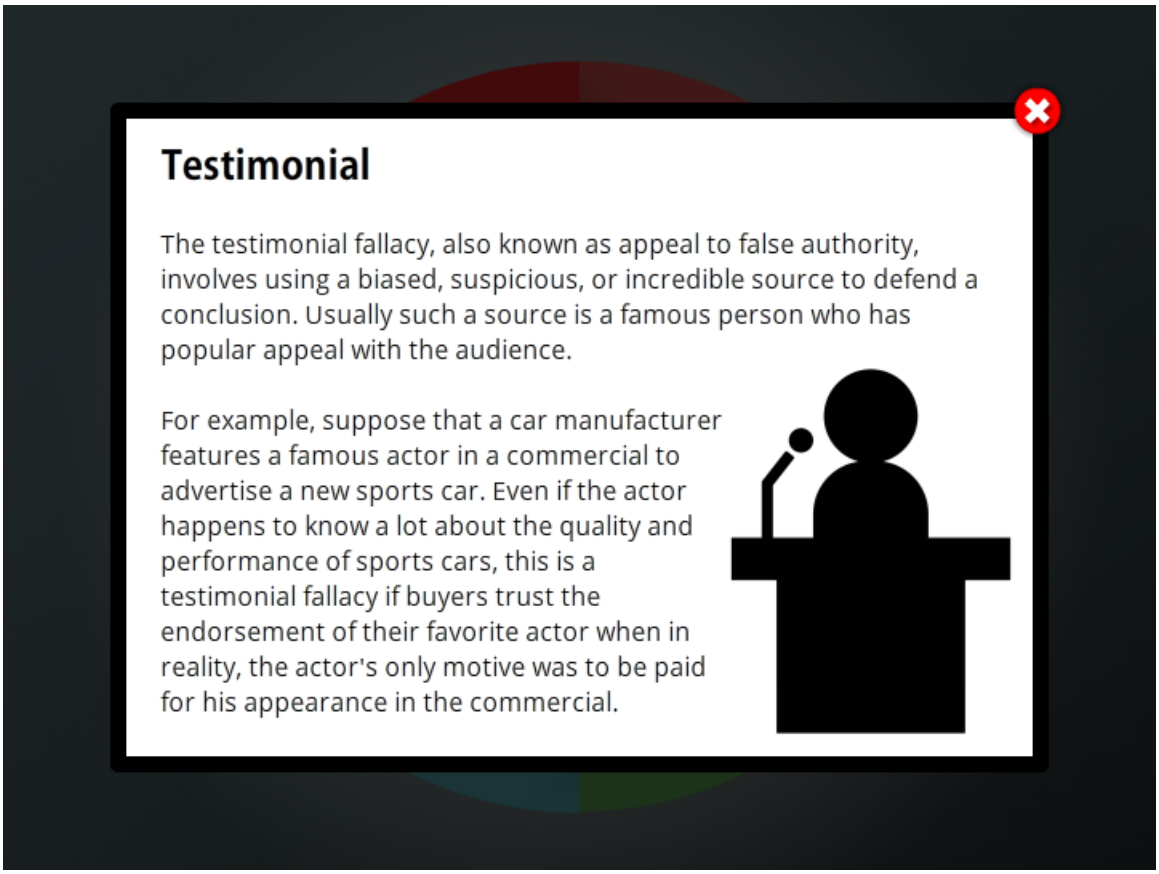
Straw Man



The straw man fallacy involves misrepresenting an opponent's position and then attacking the distorted version of the position rather than the actual position.

For example, suppose that someone claims that climate change does not exist because humans have been cooking food over fires for thousands of years without dramatically affecting the environment. However, this is a straw man fallacy because no one is even claiming that cooking food is the cause of climate change. The causes of climate change that are actually being proposed remain ignored by the opposition.

Testimonial



The testimonial fallacy, also known as appeal to false authority, involves using a biased, suspicious, or incredible source to defend a conclusion. Usually such a source is a famous person who has popular appeal with the audience.

For example, suppose that a car manufacturer features a famous actor in a commercial to advertise a new sports car. Even if the actor happens to know a lot about the quality and performance of sports cars, this is a testimonial fallacy if buyers trust the endorsement of their favorite actor when in reality, the actor's only motive was to be paid for his appearance in the commercial.