

Logical Reasoning



Though there are many techniques to make sure you are using logic well in your paper.

Remember, even good ideas can be ruined by **logical fallacies**. A logical fallacy is an error in reasoning that renders an argument invalid. These can weaken the credibility of your paper and alienate your reader. There is a wide variety of logical fallacies, but many fall into a few basic categories.

Irrelevant Appeals

Irrelevant appeals use information or arguments that are unrelated to the given material. The following examples are types of irrelevant appeals:

Popular Appeal to Authority

This appeal relies on widespread acceptance, not logic.

Example: 85% of students think that college should be free; therefore, colleges should stop charging tuition. (Just because students think college should be free doesn't make it the only viable option.)

Appeal to Ignorance

This appeal relies on the absence of contradictory knowledge or evidence.

Example: Of course unicorns exist. No one has ever proven that they don't.

Example: There's no way that Joey speaks Spanish; I've never seen any evidence that he does. (Lack of evidence doesn't mean it is false)

Ad Hominem

This appeal relies on irrelevant characteristics of persons associated with an opposing argument. In politics, this is often called *mudslinging*.

Example: We can't take this candidate seriously because he used to be an actor.

Straw Man

This appeal uses misquotation or oversimplification to misrepresent an opponent's position as indefensible.

Example: The school principal wants to stop serving cake in the cafeteria. He clearly wants us to go hungry.

Emotional Appeal (Ad Misericordiam)

Though some emotional appeals can be appropriate, this appeal relies on irrelevant emotions instead of logic.

Example: Look at the cute little puppy! How could such a sweet little thing be capable of eating your shoe?

Red Herring

This appeal sidetracks an issue by introducing unrelated information to distract the audience.

Example: Our city wouldn't be in the financial crisis it is in now if the previous mayor had adequately addressed the moral decline of our society! (Maybe there's a connection here, but it seems like the primary purpose is to distract)

Improper Generalization

Improper generalizations summarize a point using inadequate evidence or faulty arguments. The following examples are types of improper generalization:

Hasty Generalization

This appeal makes a broad generalization based on scanty or inconclusive evidence.

Example: Most employers are too picky. I've applied for three different jobs and haven't been hired.

Slippery Slope

This appeal takes several related ideas and inappropriately makes a generalized statement about them all.

Example: If we stop insisting that students wear button-up shirts to class, next thing you know, they'll be coming to class in pajamas.

Questionable Analogy

This appeal takes an analogy and inappropriately generalizes the relationship between the two items.

Example: Forcing people to pay taxes is like cornering them in a dark alley and demanding their money.

False Assertion of a Cause

False assertion of a cause assumes that two different causes or events are somehow related. The following examples are types of false assertion of a cause:

Oversimplified Cause (Post Hoc)

This appeal attributes a causal relationship as being the only possible cause of a certain outcome, when other causes may have contributed to that outcome.

Example: When I wear these shorts and take a test, I get a good grade. I should wear these shorts to every test, so I will get good test scores.

Questionable Cause

This appeal correlates two irrelevant items, concepts, or factors, resulting in questionable or confused causes.

Example: Six months after President Hoover took office in 1929, the stock market crashed. Clearly, his taking office caused the stock market to crash.

Questionable Assumptions

Questionable assumptions reach a conclusion that does not follow according to the context. The following examples are types of questionable assumptions:

Begging the Question (circular argument)

This appeal assumes the point being proven is true based on the initial premises (reasons) alone.

Example: He must be telling the truth. He said so himself.

Equivocation

This appeal assumes that two or more inconsistent terms are the same.

Example: I've heard people say that time is money; therefore, if I have more time on my hands, I'll have more money on my hands.