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“Informal Fallacies: Nine Common Examples of Faulty Reasoning”

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Fallacies are flawed patterns of reasoning that can lead to incorrect or misleading conclusions.

They can be categorized as *formal* and *informal*. *Formal* fallacies are errors in deductive reasoning where the form or structure of the argument is flawed, making it logically invalid. These fallacies occur when the conclusion does not necessarily follow from the premises, even if the premises are true. Examples of formal fallacies include denying the antecedent and affirming the consequent.

Informal fallacies, on the other hand, involve errors in reasoning that are not solely dependent on the structure of the argument. They often rely on the content, context, or language used to persuade or mislead the audience. Informal fallacies can be more subjective and context-dependent, which can make them harder to identify and analyse than formal fallacies.

In this post, we will look at nine examples of informal fallacies:

Straw Man	Begging the Question	Ad Hominem
Genetic	Appeal to Authority	Slippery Slope
Hasty Generalization	Appeal to Ignorance	Causality

Remember: Just because an argument involves a fallacy, this does not automatically mean the conclusion is false! If an argument involves a fallacy, it means

its conclusion does not necessarily follow from the premises—but the conclusion might be true anyway.

Straw Man Fallacy: Misrepresenting the Argument

The **Straw Man fallacy** involves misrepresenting or distorting an opponent's argument to make it easier to attack or refute. Instead of addressing the actual claims or positions put forth by the opposing side, a weakened or exaggerated version is presented and countered.

Example 1:

Person A: *"I think we should invest more in improving public schools to enhance the quality of education."*

Person B (Straw Man Response): *"So you're saying we should throw all our money into schools and have no funds left for anything else? That's absurd!"*

In this example, Person B misrepresents Person A's argument by exaggerating it and creating a distorted version. Person A suggested investing more in public schools, but Person B responds by framing it as an extreme stance of allocating all funds to schools and neglecting other important areas. By constructing this exaggerated version, Person B avoids addressing the actual argument made by Person A.

Example 2:

Person A: *"I believe it's important to limit screen time for children and encourage more outdoor activities to promote their physical and mental well-being."*

Person B (Straw Man Response): *"So you want to completely forbid children from using any electronic devices and isolate them from the digital world?"*

Begging the Question Fallacy: Circular Reasoning

The **Begging the Question fallacy** occurs when the conclusion of an argument is assumed to be true within the premises. It's sometimes referred to as the circular reasoning fallacy. The argument fails to provide sufficient evidence or support for its claim, assuming what it is trying to prove.

Begging the question fallacy can be deceptive as it creates an illusion of support for the conclusion without offering any *external* evidence or logical reasoning.

Example 1:

Parent: *"It's a good time to go to bed."*

Child: *"Why?"*

Parent: *"Because it's your bedtime."*

The argument assumes the conclusion, which is that bedtime is the time for going to bed. This is also known as a *tautology*, the needless repetition of an idea. In logic, the statement "A is A" is an example of tautology; it is true by definition and thus not worth stating. "If you lose the race, then you will not win" is also tautological.

Example 2:

"This policy is beneficial because it is the best option available, and it is the best option available because it is beneficial."

Ad Hominem Fallacy: Attacking the Person, Not the Argument

The **Ad Hominem fallacy** involves attacking the character or personal traits of an individual making an argument instead of addressing the substance of his or her

argument. This fallacy aims to discredit the person rather than engaging with the actual ideas being presented.

Example 1:

Person A: *“We should invest more in healthcare to ensure everyone has access to quality medical services.”*

Person B (Ad Hominem Response): *“Opponent A is just a greedy doctor who wants to increase his own profits.”*

In this case, the response targets Person A’s *character* by accusing him of being a greedy doctor motivated by personal financial gain rather than engaging with the argument itself. By focusing on the character of the opponent rather than the merits of the argument, the Ad Hominem fallacy deflects attention from the actual topic and tries to discredit the person making the argument rather than addressing the substance of that person’s claims.

Example 2:

Worker A: *“I believe implementing flexible working hours would benefit employees and lead to higher productivity.”*

Worker B (Ad Hominem Response): *“Well, you’re always late to work and never meet deadlines, so your opinion on productivity doesn’t matter.”*

Genetic Fallacy: Judging Based on Origin or Source

This one is closely related to the Ad Hominem fallacy above. The **Genetic Fallacy** involves dismissing or accepting an idea based on its origin or source, rather than evaluating the idea itself on its own merits. This fallacy fails to address the actual content or validity of the argument.

Example 1:

“You can’t trust anything he says. He comes from a family with a history of criminal behaviour.”

In this example, the person dismisses the credibility of someone’s statements by pointing out the speaker’s family background and its history of criminal behaviour. This fallacy assumes that the person’s family history automatically makes his or her statements unreliable or untrue.

Example 2:

“That research paper can’t be reliable. It was published in a lesser-known journal.”

Appeal to Authority Fallacy: Relying Solely on Expert Opinion

The **Appeal to Authority fallacy** occurs when an argument relies on the opinion or testimony of an authority figure or expert in a particular field, without sufficient evidence or reasoning to support the claim.

Example 1:

“Dr. Smith, a renowned physicist, says that ghosts exist. Therefore, ghosts must be real.”

In this example, the argument is based on the statement made by Dr. Smith, a renowned physicist, who claims that ghosts exist. The fallacy occurs when the conclusion that ghosts must be real is drawn solely based on Dr. Smith’s authority and reputation as a physicist, rather than providing substantial evidence or logical reasoning to support the existence of ghosts. The fallacy assumes that the authority’s opinion is always correct, without critically examining the evidence or arguments for the claim.

Example 2:

“The experts say medicine X is effective and necessary, so you should trust its effectiveness and necessity without question.”

Slippery Slope Fallacy: Predicting Extreme Consequences

The **Slippery Slope fallacy** asserts that a small action or decision will lead to a chain of increasingly dire or extreme events, without providing sufficient evidence to support the claim. It assumes a linear cause-and-effect relationship without considering other factors or possible outcomes.

Example 1:

“If you try one cigarette, you’ll become addicted to smoking. Soon, you’ll be smoking a pack a day, get cancer, and die.”

This example illustrates the slippery slope fallacy by suggesting that trying one cigarette will inevitably lead to a chain of negative outcomes, including addiction, health problems, and death. While it’s true that smoking can be addictive and harmful, this argument overlooks the fact that individuals have different responses to smoking, and not everyone who tries a cigarette becomes a regular smoker. It fails to acknowledge personal agency, potential interventions, and the ability to make informed choices regarding one’s health.

Example 2:

“If we allow students to use smartphones in the classroom for educational purposes, it will lead to complete chaos. Next, they’ll be using them for social media, then they’ll start cheating on tests, and eventually, no one will be focused on learning anymore.”

Hasty Generalization Fallacy: Drawing Conclusions from Insufficient Evidence

The **Hasty Generalization fallacy** occurs when a general conclusion is drawn based on a limited sample size or insufficient evidence. It fails to consider the individual differences or variations within a group and makes sweeping generalizations. Hasty generalizations overlook the need for a larger sample size and more comprehensive evidence to make accurate and justified generalizations about a particular group or population.

Example 1:

“I met one rude person from that country, so all people from that country must be rude.”

In this case, encountering one rude person from a particular country leads to the hasty generalization that all people from that country are rude. This conclusion fails to consider the individual differences within a country and disregards the fact that individuals can vary greatly in their behaviour, attitudes, and characteristics. It unfairly stereotypes and assumes that the behaviour of one person represents an entire group.

Example 2:

“I tried one brand of this product, and it didn’t work for me. Therefore, all brands of this product must be ineffective.”

Appeal to Ignorance Fallacy: Arguing Based on Lack of Evidence

The **Appeal to Ignorance fallacy** asserts that something must be true because it has not been proven false or vice versa. It exploits gaps in knowledge or lack of evidence to make a claim without proper justification.

Example 1:

“There’s no evidence that medicine X is harmful, so medicine X is safe.”

In this case, the argument states that since there is no evidence indicating that medicine X is harmful, it is automatically considered safe. However, this reasoning is flawed because the absence of evidence does not guarantee the truth of a claim. For example, there could simply have been no safety tests conducted on medicine X—in which case there would be no evidence it is harmful—but this would not be the same as conducting the tests and proving that medicine X actually is safe.

Example 2:

“No one has disproven the existence of aliens, so aliens must exist.”

Causality Fallacy: Assuming Causal Relationship without Evidence

The **Causality fallacy** assumes a cause-and-effect relationship between two events simply based on their correlation, without providing sufficient evidence to establish a direct causal connection.

Example 1:

“Every time I wear my lucky socks, my team wins. Therefore, my lucky socks must be the reason for their victories.”

In this example, the individual believes wearing lucky socks directly leads to a particular team’s victories. However, correlation does not automatically prove causation: just because the person wears lucky socks and the team wins, it does not necessarily mean that the socks are the *cause* of the victories. It neglects the possibility of other variables, such as team performance, strategies, or even luck.

Example 2:

“Crime rates increased after the release of that violent video game, so the game must be causing the rise in crime.”