

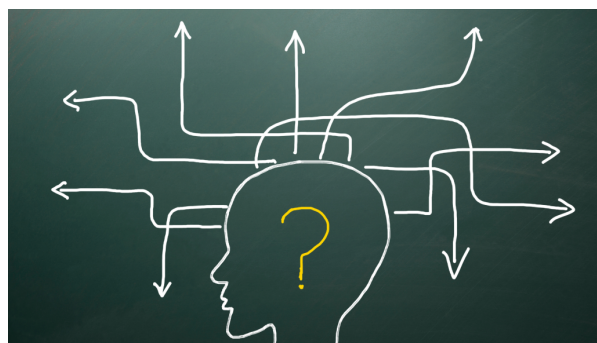
Cognitive Biases and Logic Pitfalls: Behind Reasoning and Decision-Making

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Logical fallacies and cognitive bias go hand in hand. It takes critical thinking skills and positive self-doubt to avoid these traps that contribute to stereotyping, stigmatization, misrepresentation, and other negative outcomes of the lack of media literacy skills. This is the fourth article in the series produced together with the Baltic Media Centre of Excellence, where we explore the intricacies of the human mind and the potential traps in decision-making, while reminding you of 12 common cognitive biases and 10 logical fallacies that often shape our understanding of information.



Cognitive biases and logical fallacies are the silent influencers that mold our perceptions and shape our responses. Thus, knowledge and understanding of what these things are, can in fact contribute to a more critical and informed reading of any media text and any human interaction.

The difference between cognitive biases and logical fallacies might seem a bit unclear at first, as these are actually related concepts which often influence human reasoning and decision-making, but these types of errors are different. Cognitive biases are more related to how individuals perceive and interpret information, often resulting in systematic errors in judgment. Meanwhile, logical fallacies are errors in the structure of arguments that can lead to faulty reasoning. Both can have an impact on the decision-making process and result, therefore being aware of them can help to improve the quality of reasoning.

Cognitive Biases: Understanding the Inner Workings of Thought

In this section we'll go over 12 types of cognitive biases, that we can learn to recognize and train ourselves to prevent similar trains of thought in the future.

- **Confirmation Bias:** Metaphorically speaking, this could be explained as 'the echo chamber of beliefs'. Confirmation bias is the tendency to seek information that confirms our existing beliefs and ignore evidence that contradicts them. As our brains feel more comfortable when no cognitive effort is necessary, reaffirming what we already know feels convenient.
- **Anchoring Bias.** The initial information we receive tends to carry more weight than it deserves. Anchoring bias influences decision-making by anchoring our thoughts to the first information encountered, thus it is always of utmost importance to reevaluate initial information.

- **Availability Bias:** Are easily accessible facts always the most reliable? Of course not! Availability bias is the tendency to overestimate the importance of easily accessible information while underestimating the importance of more difficult information.
- **Hindsight Bias:** You cannot predict the future. Period. Hindsight bias occurs when someone overestimates their ability to predict events and in turn is convinced that they accurately predicted an event before it even occurred.
- **Halo Effect:** Sometimes a single positive trait can cast a long shadow, distorting our judgement of something or someone through the halo effect. Halo effect means that our conclusion is based on a positive trait or quality that echoes over everything else we might find out, so we assume that everything else is also positive.
- **Negativity Bias:** On the other hand, there are times and situations when we focus too much on something negative. Negativity bias mean that we give negative information more weight than positive information, even if the negative information is less important.
- **Framing Effect:** Would you rather believe a text that is full of grammatical errors, or a beautifully written text that has no flaws in grammar and style? Framing effect means that our perception is shaped through presentation. It's the tendency to be influenced by the way information is showcased rather than the information itself.
- **Sunk Cost Fallacy:** This is the tendency to continue to invest time, money or resources in something just because we have already invested in it, even if it is no longer useful.
- **Gambler's Fallacy:** Why do we believe in streaks and patterns in randomness? The gambler's fallacy is the belief that a random event is more likely to happen because it hasn't happened in a while or because it's bound to happen.

- **Overconfidence:** Overestimating one's abilities and underestimating the potential errors characterizes overconfidence. It impacts decision-making by skewing our perception of competence.
- **Self-serving Bias:** Self-serving bias shapes our narratives and influences how we interpret outcomes by attributing our successes to our own abilities, while attributing our failures to external factors beyond our control.
- **Groupthink:** The tendency to conform to group beliefs, even if against our best interest, is a groupthink. If you learn to balance group dynamics with your own critical take, your decisions will be much more informed and not shaped by the thoughts of the majority.

Logical Fallacies: How to Avoid Faulty Reasoning?

To understand and learn how to avoid faulty reasoning, one must first understand what logical fallacies are and what are the 'red flags' that signal that someone (including you) is using faulty arguments. Here we go over 10 of the most frequently used fallacies, giving examples to make it all clearer.

- **Ad Hominem** 'Attacking the Messenger' means that instead of addressing the argument, the person presenting it is attacked. Ad Hominem undermines the quality of discourse.
Example: in an argument on climate change, instead of addressing the argument, someone responds by saying, "You say that because some time ago you worked for an environmental group."
- **Appeal to Authority** means that the argument is based on relying on the authority or expertise of a person without evidence. To avoid this, one must always emphasize and follow the importance of evidence over blind trust.
Example: Without presenting any data someone announces that, "Our boss says that the company is financially stable, and despite the recent losses there is no need to worry."

- **False Dilemma** is a presentation of only two options, although in reality there may be more options.

Example: Ignoring the possibility of alternative solutions or nuanced opinions someone says that "Either you agree with this proposal, or you are against development and growth."

- **Slippery Slope** is an argument that one action will inevitably lead to a series of negative consequences, with no evidence to support this claim.

Example: "If we allow same-sex marriages, the traditional definition of marriage will be altered, thus leading to a breakdown of the institution of marriage, dissolving social values and the disintegration of the family unit as a whole."

- **Straw Man** is an argument where the opponent's argument is twisted or exaggerated to make the attack easier.

Example: When discussing neighbourhood safety after theft rates have gone up, someone might suggest installing more security cameras within the area. A classical straw man argument to that would be: "So you don't trust your neighbours?"

- **Hasty Generalization** is a sweeping statement based on limited evidence or a single example.

Example: "I went to Paris and got scammed at the hostel. Paris is full of scammers!"

- **Circular reasoning** is an argument that uses a conclusion as evidence to support itself. *Example: "The Bible is true because it says it is, and it's the word of God."*

- **Appeal to Emotion** is the use of emotional language to persuade someone without providing evidence.

Example: Without any argumentation or evidence someone announces that, "You must donate as much money as you can to our charity. Think of the children who will suffer without your help."

- **False Cause** is the assumption that because two events occur together, one caused the other.

Example: "Since the new government started their work, the unemployment rates have gone up. The new government is why people are losing jobs."

- **Bandwagon** is the argument that something is true or good because everyone else thinks so.

Example: "This is the smartphone that everyone buys right now, the sales have skyrocketed. It must be the best one."

Cognitive biases and logical fallacies that we've gone over throughout this article are not the only ones. But understanding the basics can have a great impact on the comprehension of human thought and the processes behind reasoning and decision making. From confirmation bias to the bandwagon fallacy, understanding these influences equips us to navigate the information landscape with confidence.