Chapter 1: What is Critical Thinking Anyway?

The goal of critical thinking is to challenge and question our beliefs and coming to our most fallacy free conclusions as we can possibly come to and to make decisions that are wise. *The purpose of critical thinking is to come to correct conclusions.*

Claim: When a belief (judgment, opinion) is asserted in a declarative sentence, the result is a claim.

Beliefs and claims

- When we come to a conclusion, we have a belief
- A belief is **propositional (can be expressed in a declarative sentence)**
- These beliefs become claims, statements and assertions

Objective claims and subjective claims

Objective claim: whether it is true or not is independent of whether people think it is or isn't. Example: "God exists" or "There is life on Mars"

Subjective claim: whether a subjective claim is true or not is dependent on whether people think it is or not. Example: "Obama is one cool daddy depends on who you ask"

- Objective opinions are factual opinions but that doesn't mean they're right

Relativism: The idea that truth is relative to the standards of a given culture. There is no independent "God's-eye view" meaning culture's standards that can be seen to be more correct than the others'

Moral Subjectivism: The idea that moral opinions are subjective. If you think something is morally wrong, then it is morally wrong for you and you don't need to consider any further truth.

Issues: In this case, an issue is merely a question

Arguments

- An argument presents a consideration for accepting a claim.
- An argument contains two parts, **a premise** (part that provides the reason) and **a**
- **conclusion** (what the premise supports).
- Always think of a conclusion as a stance on an issue (belief, opinion)

Cognitive biases

- Cognitive biases skew our apprehension of reality and interfere with our ability to think clearly, process information accurately, and reason objectively.

- We tend to evaluate an argument based on whether or not we agree with it rather than think of it logically.

Belief bias: Tendency to evaluate reasoning by the believability of its conclusion

Confirmation bias: Tendency to attach more weight to evidence that supports our viewpoint

Negativity bias: we tend to give greater weight to evidence that are scary, negative, produces fear rather than positive evidence. (plane crash speaks more than thousands of safe flights). As critical thinkers, we're not just trying to be pragmatic, we want to understand things and seek the truth.

Loss aversion bias: We are far more resistant to losing something and see things in a way that tries to maintain what we're losing. We want to recognize this trait.

In group bias: you're less critical of opinions from people whom you form a group with. (heat fans tend to agree with heat fans) (ops disagree with other ops). We show more animosity towards groups with an opposing mindset.

Obedience to authority: We tend to not argue with those who we think have authority over us

Overconfidence effect: A lot of people tend to be overconfident. It's good to be uncertain.

The better than average illusion: We tend to think we're doing better than the average people in our situation.

Bandwagon Effect: The tendency to align our beliefs with those of other people.

Availability heuristic: Assigning a probability to an event based on how easily or frequently it is thought of.

False consensus effect: Assuming our opinions and those of the people around us are shared by society at large.

Fundamental attribution error: Having one understanding of the behaviour of people of the ingroup and another for people not in the in-group.
-The best defense against these biases is to make it a habit to think critically and to be especially critical of arguments and evidence that seem to accord with what we already believe.

Chapter 2: Two Kinds of Reasoning

2 complications with premises and conclusions

1. Conclusions used as premises
2. Unstated premises and conclusions

Conclusion indicators

Thus, Therefore, Hence, This shows that, This suggests that, Consequently, So, Accordingly, This implies that, This proves that

2 types of arguments

Deductive arguments: The premise(s) of a good deductive argument, if true, proves its conclusion. The fundamental concept of deductive logic is **validity**. An argument is valid when its premises are logically constructed, leading to a reasonable conclusion. An argument is **sound** when premise(s) are true leading to a logical, true conclusion. Thus making the argument valid.

Inductive arguments: The premise of a good inductive argument doesn't demonstrate its conclusion; it supports it. The more support a premise provides for the conclusion, the stronger the argument becomes and vice versa. These are arguments that are relatively strong or weak.

Example**: After 2pm the traffic slows to a crawl on the Bay Bridge. Therefore, it probably does the same thing on the Golden Gate Bridge.**

An inference to the best explanation (IBE) is an argument whose conclusion explains the cause of something. (Its an Inductive Argument)