

# THINKING, FAST AND SLOW

Daniel Kahneman  
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## THE TWO SYSTEMS

Our brain can be thought of as having two personalities, System 1 and System 2. System 1 is automatic and subconscious, whereas System 2 is deliberate and involved in analyzing complex problems, and answering tough questions that stump System 1. Many times, when System 1 can't answer a question, it answers a simpler question. For example: "Would this person be a good Governor?" is a hard question, and System 1 cannot retrieve a readily available answer, so System 1 substitutes a proxy question: "Does this person look like a strong leader?" That's also tough, so we get further substitution: "Does this person have a strong jawline?" It sounds silly, but this is the way our Brain works.

## MY TAKE

When I want to be thoughtful about making any decision, I want to employ System 2, and I want to make sure that I'm answering the right question before I make a decision. A simple deep breath and a "what am I really asking here?" is all it might take, and it is vital to do this when the stakes are high, and in everyday life. Anything ranging from "Would she be a good partner for me?" to "What would be a good breakfast?" should be re-examined in a thoughtful way. Substituting even the basic later question can have dire consequences if the new question is "What would be a tasty breakfast?" I don't think I have to substantiate why eating bananas foster french toast every day is a bad idea.

## BIAS, UNCERTAINTY, & WYSIATI

Unfortunately, we're also incredibly biased creatures, mostly because of a phenomenon that Kahneman calls WYSIATI, or **What You See Is All There Is**. Kahneman profoundly says

*"Our comforting conviction that the world makes sense rests on a secure foundation: Our almost unlimited ability to ignore our ignorance."*

What Kahneman is getting at with this quote, and what he explains in several chapters, is that pretty much all of what we do is guided by what we know, and NOT by what we don't know. This sounds obvious, but think about it in terms of informed decision making. Whether a decision was the right one largely depends on luck for almost everything we do (yikes, hence the lack of comfort). To be an informed decision maker (my take) is to incorporate uncertainty into decisions.

## ACTIONABLE EXAMPLE: THE PREMORTEM

Gary Klein, Kahneman's collaborator and adversary (because he's a proponent of expert intuition whereas Kahneman is wary of it), suggests that for every big decision that a group makes, everyone should consider the following prompt: "Imagine that we are a year into the future. We implemented the plan as it now exists. The outcome was a disaster. Please take 5 to 10 minutes to write a brief history of that disaster."

## PROSPECT THEORY

People are more willing to assume risk when avoiding a loss than they are when seeking gains. Classic Example of two questions:

*Which do you choose...*

- Get \$900 for sure OR
- 90% chance you get \$1000?

*Which do you choose...*

- Lose \$900 for sure, OR
- 90% chance you lose \$1000?

The answers to these two questions differ even though the expected values are the same. We are willing to assume risk to avoid the pain, but not to increase the gain.

## RARE EVENTS

Rare events will almost always be overweighted because of the possibility effect. Prospect theory finds that humans actually assign weights to probabilities that are less sensitive to true expectations because of the ways in which our brain functions – much of which is dictated by System 1.

- To avoid this phenomenon, state both prospects in a scenario: "99% chance to win \$1,000 and 1% chance to win nothing" rather than one or the other.
- denominator neglect
- obsessive concerns, vivid images, concrete representations, and explicit reminders all contribute to the overweighting of rare events

## THE TWO SELVES

*Not related to the two systems*

Kahneman shows through various experiments that there are two selves: The experiencing self, and the remembering self.

Philosophical question: Which is more important? A colonoscopy that had an objectively lower amount of overall pain? or the perception afterwards that it was or wasn't painful?

## OTHER NOTES: BAD IS STRONGER THAN GOOD

Our brain is built to emphasize fear and bad news – that is what helped us survive. An angry face stands out in a crowd of happy faces but the opposite is not true. A study of terrified and happy eyes flashed before people who could not "see" the eyes showed activation in the amygdala – the part of the brain that processes threats. Bad words like "war" and "crime" attract attention faster than good words like "peace" and "love." Think of the difference between these two images, and make sure you're not eating:

A bowl of cherries with a cockroach, a bowl of cockroaches with a cherry.