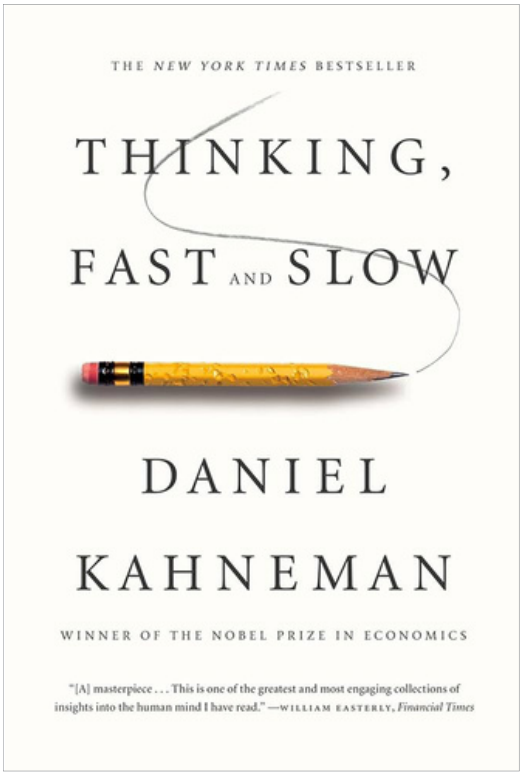
Recommended Read:

Thinking Fast and Slow *by Daniel Kahneman*

In this book, Daniel Kahneman and his collaborators undertook psychological experiments to demonstrate human thinking using 2 ways of thinking (System 1 and System 2) and provided a useful framework for understanding when, how and why people think quickly, slowly, well, or poorly. Explaining how people misjudge, inaccurately remember, and make flawed decisions, even when they think they are being rational. The implications of these decisions span from individual actions to fields such as investment management, medicine, law, and economic/public policy.

Part 1: Two systems

Kahneman guides us through an exploration of the quirks of human cognition in this book. The book begins by introducing 2 ways of thinking. System 1, automatic, with little or no effort but prone to systematic errors that are commonly referred to as cognitive biases and System 2, that requires deliberate thinking effort and concentration but is often lazy. System 1 is biased, drawing conclusions from available evidence, the *What You See Is All There Is (WYSIATI)* effect. It often unconsciously substitutes hard questions with easier, emotional ones without noticing. System 1 is 'fast' and jumps to conclusions, while System 2 is 'slow' and serves to monitor and control thoughts and actions suggested by System 1. *"Uncertainty and doubt are the domain of system 2".*



Part 2: Heuristics and Biases

Inthis section, Kahneman dives into the more deliberate System 2 and proves that it also has flaws. *Anchoring* is a flaw where the brain gets tricked by the starting position. For example, considering how much to pay for a house will be more likely influenced by the listing price com- pared to the property's true valuation. Similar to the halo effect which increases the weight of first impressions.

Another flaw is *availability heuristics*. In general, heuristics are quick and easy rules of thumb used to form judgements. Mass media amplifies *availability heuristics,* where a few cases of a negative event such as an oil spill produce a widespread misconception of the frequency of the event. Fear takes over, leading to additional reporting and the formation of the self-staining availability cascade. And then, the *representativeness heuristics* – though known to be unreliable, people trust stereotyped descriptions and tend to ignore base rates and statistical facts. *"A reliable way to make people believe in falsehoods is frequent repetition because familiarity is not easily distinguished from truth."*

People are eager to latch on to causal explanations even in instances where the correct explanation is purely statistical. When our attention is called to an event, associative memory automatically looks for any cause already stored in memory, from which we draw conclusions. *"We can be blind to the obvious, and we are also blind to our blindness."*

Part 3: Overconfidence

This section ofthe book focuses on overconfidence. The book asserts that people tend to be overconfident about their judgements and predictions and are prone to place too much faith in their intuition, despite having been wrong many times before. System 1 minimises the role of luck in the success of a person or a business venture. For example, successful CEOs are thought to possess exceptional skills while equally skilled CEOs may have done less well because of unforeseeable or uncontrol- lable reasons, an *outcome bias*. System 1 also rewrites people's memories of the past, where they remember for example, predicting outcomes of an election or a murder trial when they in fact made no such prediction - *hindsight bias* is at play. In the same way, experts, such as doctors, baseball coaches and politicians are often blamed for failing to predict events that no one could have predicted except by a lucky guess. Financial ana- lysts, for example, convince themselves that they have insight into the future even while their track record says otherwise. Social and commercial incentives play a role in reinforcing this illusion. No one wants to hear "who knows?" from an advisor. *"True experts know the limits of their knowledge".*

Kahneman offers a few ways to correct for overconfidence; to rely less on human judgement and use algorithms. One way is to ensure that expert opinion isn't ignored completely but be incorporated into the algorithm as an additional variable. And in professional settings, set up processes that facilitate quick decision-making and where feedback is provided to correct errors, while at the same time creating an environment that fosters the development of sound expert intuition. Another way to correct for overconfidence is to compare project projections (inside view) against past experiences gathered by others (outside view), to avoid the *planning fallacy* often fuelled by optimism. For planners who want a check on their optimistic outlook, a *premortem* is recommended – an exercise where you look back from a future date, assume the project failed and write up an account to identify overlooked risks. *"Confidence is a feeling, which reflects the coherence of the information and the cognitive ease of processing it. It is not a judgment of accuracy."*

Part 4: Choices

Thissection of the book discusses the relationship between the psychological value or desirability of money i.e. *utility* and the actual amount of money. A rational choice involves quantifying and calculating expected utility from every choice such that utility is not simply monetary value. For example, a $100 note would bring more happiness to a less fortunate person than a rich one. Utility should therefore be assigned to changes from a *reference state* instead of an outcome. People grow attached to the status quo and their choices become biased to it, because of being loss averse. This is why the subjective difference between a loss from $1000 to $900, matters less, psychologically than from $100 to 0. Loss aversion is similar to the *sunk-cost fallacy*, where resources continue to be invested in the hopes of recouping the original investment even though a loss is almost certain. *"Because defeat is so difficult to accept, the losing side in wars often fights long past the point at which the victory of the other side is certain, and only a matter of time."*

Part 5: Two selves

Thelastpart of the book distinguishes between the *experiencing self* – what we feel in the moment and the *remembering self* – how we recall those experiences. Often it is our memories rather than our actual experiences that shape our decisions. The remembering self registers peaks of pleasure and pain rather than the summed up overall experience. Such that a vacation with one bad day may be remembered poorly, despite pleasant experiences on the other days. *"The remembering self is sometimes wrong, but it is the one that keeps score and governs what we learn from living, and it is the one that makes decisions."*

Overall, the book equips the readers with tools to recognise and counter biases. To avoid the sin of intellectual sloth, be more alert, less willing to be satisfied with superficially attractive answers, more sceptical about our intuitions. To recognise the role of randomness and chance which often shape outcomes; for failure or success.