Thinking Fast and Slow

POINT of Reference:

At 499 pages, this is a High-effort read. The author is a Nobel Prize winner in economics. The book is not only a high-effort read, but also a "heady" one.

Genre

Business

Decision Making

Problem Solving

Cognition

Cognitive Psychology

Steeped in psychology, the book is a combination of an educational journey on the tenets of cognition along with self-help value related to how we think and make decisions.

Key POINTs

Thinking about Thinking

Walks the reader through HOW human beings think and process information. Challenges one to use critical thinking skills on our own thinking processes.
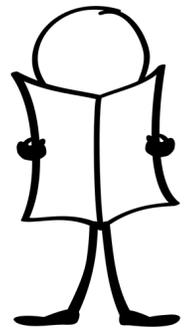
System 1 and System 2

Human beings have two systems of thinking. System 1 is built on object and pattern recognition, is faster, and it requires fewer caloric resources. System 2 is built on focused analytical thought and reasoning, and it requires greater caloric resources. Our preference is to use System 1 thinking wherever we can to conserve energy and improve speed of response.
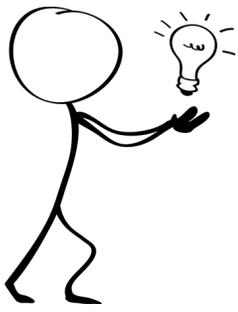
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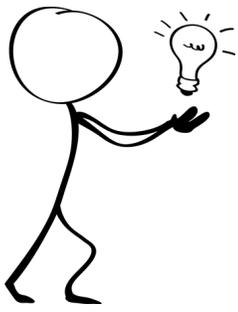*Get to the **point**, fast!*

Main POINTs

We all have system 1 and 2 thinking "engines" in our brains. System 1 is the thinking engine that is automatic, requires low effort, and is fast. This is where we use pattern recognition to deal with those things in our lives that are common and frequent. System 2 is the thinking engine that is conscious, requires focused effort, and concentration. It's slow(er), logical, and provides us the ability to deal with abstract and complex issues.

We have a predisposition to use System 1 because it has a lower energy requirement. Seriously, it requires few calories of energy to execute. Your brain uses roughly 20-25% of your body's daily energy intake. For the average person, that comes out to about 300-400 calories per day to operate. Yes, 3-400 calories per day to operate your brain. Your brain runs on glucose. Ever do a bunch of "thinking work" and all of a sudden you find yourself craving sugary foods? That's because fructose converts rapidly to glucose,which is what your brain uses to run. Carbs convert to glucose a bit slower, and protein is down a list further and converts even slower. Finally, the slowest to convert to glucose is stored fats. Yep, it's science.

Both systems (or engines) of thinking are valuable to us as human beings. However, of the two, System 1 is more error-prone. We humans are tuned to look for and see patterns; one could

Extra POINTs

Being aware of how we think as human beings is tremendously insightful when leading teams, running meetings, and asking organizations to behave differently. Our thinking processes impact our cultural dynamics more than we realize. The content of this book helps business leaders discern organizational behavior and, more importantly, work through how to derive effective decision making.

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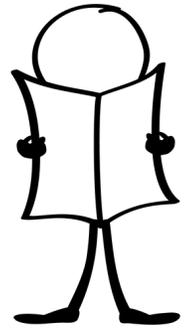
argue that we are over-tuned to see patterns. When we see a pattern that we recognize, System 1 takes over and responses are automatic. But, what happens when the pattern we thought we saw really wasn't the pattern that's programmed into our brains? Errors. Incorrect outcomes. Poor quality decisions.
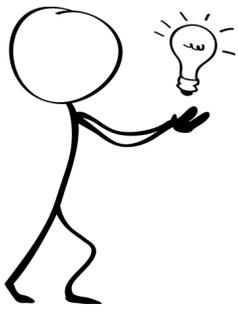
You have probably seen a puzzle like the one on the right. You don't have to look too hard on social media to find one of these floating around. When you seen them on social media they're usually accompanied by a cute little quip like:

> *"If you can read this, you're among the top 1% of the most brilliant people on the planet."*

Sorry to burst your bubble, but that's not true. All normally functioning human beings process language the same
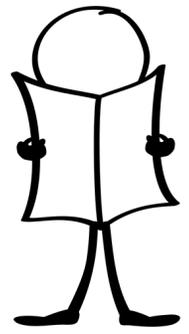
TH15 M3554G3 53RV35 TO PR0V3 H0W 0UR M1ND5 C4N D0 4M4Z1NG TH1NG5! 1MPR3551V3 TH1NG5! YOUR M1ND 4UT0M4T1C4LLY P70C3S53S 1T W1TH OUT 3V3N R3LJY TH1NK1NG 4B0UT 1T…5Y5T3M 1!

way…through pattern recognition…using the System 1 engine. We don't read every single letter of every single word. We read through patterns, meaning that we look at the first letter, the last letter, and the number of letters, and we retrieve the word that's programmed. And, that's not just limited to those populations whose language is rooted in Cyrillic or Roman alphabets. The pattern recognition usage of System 1 thinking is universal to the human species, which means it functions in all language bases around the world including: Amharic, Arabic, Armenian, Bengali, Burmese, Chinese, Cyrillic, Devanagari, Georgian, Greek, Hebrew, Japanese, Khmer, Korean, Lao, Latin, Sinhala,

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Thai, and Tibetan. You may still be one of the most brilliant people on the planet; it's just not because of your ability to read a word jumble though.

System 1 thinking is important to us. Psychology Today[1] published an article in 2019 that reported that people make an average of 35,000 decisions in a day! Now, those are all levels of complexity. From the simple decisions like "what color shoes to wear?" or, "where shall we eat dinner?" To more complex decisions like "how do we solve these issues with our user acceptance tests?" or, "should we invest $10M in this strategic business project?" (*Although, in my world, sometimes the dinner decision is harder than the investment one.* 😉) System 1 thinking is the prevailing "engine" in large volume of decisions that we face every day. We need System 1 thinking.

A parallel in computers might be installing a separate graphics processing unit (GPU) which can handle all the visual processing (presentation to the monitors), so that the central processing unit (CPU) can handle the more intensive processing required by applications being used. In this analogy the GPU is System 1 and the CPU is System 2. We do this in the computer system to speed up the overall functionality of the computer. It's the same result for us humans…we use System 1 to speed up the overall functionality of our decision making. The reality in the computing world is that GPUs do a lot of "heavy lifting" which makes this a loose analogy, but I'm sure you get the *point*. When problems and decisions are routine and under time constraint, System 1 kicks in.

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[1]Guttman, J. (2019) *Decision-Making: Facing the challenge of making 35,000 a day.* Psychology Today. Retrieved on January 2021 from https://www.psychologytoday.com/us/blog/sustainable-life-satisfaction/201907/decision-making-facing-the-challenge-making-35000-day#:~:text=It's%20unbelievably%20daunting%20because%20people,make%20the%20%E2%80%9Cright%E2%80%9D%20choices.
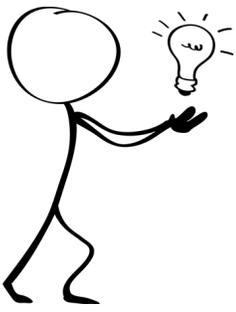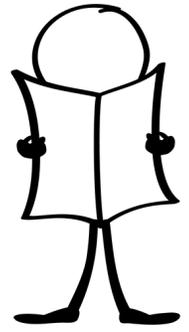
System 2 is the more methodical, analytical, and debating "engine." It's anchored in logical judgements and a decisioning process which seeks to bring-to-bear additional information. System 2 is a more demanding cognitive process and subsequently (or comparatively) it's much slower. When problems and decisions are complex and uncertain, System 2 kicks in. Even when using the System 2 engine, we are still subject to System 1 patternicity-thinking; this is where biases come into play. We may put more weight on information we received recently because it is fresh in our minds and coded with patterns (recency bias.) We may place more merit on information coming from someone we like (halo bias) versus someone we don't (horns bias.)

Systems 1 and 2 thinking engines are both enormously useful when applied at the right time and the right place. Properly balanced we derive a good balance between speed and quality of decision making. There's a lot to be learned by business leaders from this great work based in cognitive science. The impacts and insights on organizational decision making are great. ∎