

# Thinking fast and slow



# WHAT WE'LL GET TO GRIPS WITH

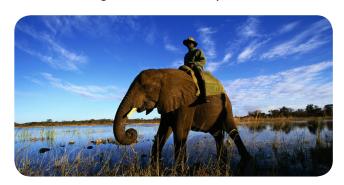
- 1. What's this all about?
- 2. Why is it important to understand and use it?
- 3. How can you apply it?

# WHAT'S IT ALL ABOUT?

# System one: fast; system two: slow.

It's about the two agents who live in your brain: system one and system two. System one is the fast thinker and system two is the slow thinker. Daniel Kahneman has made this idea popular, but it's not new—it's been around for many years.

A similar idea is the elephant and the rider, popularised by Jonathan Haidt. Also neuroscientist, David Rock, talks about the need to focus on what we want to achieve as our brains aren't as good as we think they are.



# System one runs automatically...

This is your brain that operates automatically and quickly. It's effortless and we have little voluntary control over it. It runs in the background.

#### It's great for:

- familiar situations: getting on a train from Waterloo to Wellington
- repetitive tasks we know well: making a cup of tea
- predicting short-term: I've eaten the Subway Spicy Chicken Buffalo sandwich before and it was delicious. I'll enjoy it a second time.

#### ...but it's limited

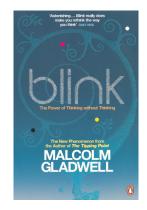
When situations or problems become more difficult, system one calls on system two. And system one is difficult to turn off. To see this in action, watch the video The Backwards Brain Bicycle – Smarter Everyday 133: <a href="https://www.youtube.com/watch?v=MFzDaBzBlL0">www.youtube.com/watch?v=MFzDaBzBlL0</a>

Once we know something or believe something intuitively, we may well fight the evidence that says it's wrong.

# **BUT WHAT ABOUT THIN-SLICING?**

Thin-slicing is looking at something for a short time and concluding what it's about. Then, when we examine it in more detail, we find our first intuitive thoughts were valid. Gladwell put forward this idea in **Blink**.

Kahneman dismisses thin slicing, but also puts forward that expert intuition is valid.



For example, an experienced medical professional might examine a patient very quickly and conclude correctly they were suffering from a particular condition. And they'd be right.

We can trust expert intuition if:

- situations happen regularly enough to be predictable
- people practice enough to learn about, and from, these situations.

So, what's your view on intuition? Do you rely on it? Do you trust yours and others?

# Transfer some system two analysis and expertise to system one...

This is what we do all the time. We drive a car, type, use language, play the piano—anything that needs us to learn—via system two effort—and transfer it to system one. It becomes our expert intuition.



# ..but watch out for so many pitfalls

System one is cognitively easy, and who doesn't want an easy life? We may well use our simple, system one brain if situations or problems:

- seem familiar
- feel true
- · don't require much effort
- · seem clear
- make you feel good
- put you in a good mood (or you're in one already)
- have been primed to suggest particular answers.

# A QUICK WORD ON GOOD MOOD: YOU WIN SOME; YOU LOSE SOME

The good news is if we're in a good mood and feeling happy, our intuition will kick in and operate more accurately. If we're unhappy, our intuition won't work very well. Mood affects system one: when we're uncomfortable and unhappy our system one intuition suffers.



The bad news is when we're in a happy mood, we'll use our intuition and our creativity, but our gullibility will increase. We tend not to go to system two and aren't vigilant enough. We may make more logical errors. So feeling good may be dangerous.

But then we need our system two brain to step in and say: hang on, let's examine this in more detail.

# **USE SYSTEM ONE TO COMMUNICATE**

One of the key advantages of system one is when we want to communicate and get our points across. Why do we want your readers or listeners to work harder than they need to (system two) when system one will make it easier for them?

Kahneman: "If you care about being thought credible and intelligent, do not use complex language when simpler language will do...couching familiar ideas in pretentious language is taken as a sign of poor intelligence and low credibility."

It's not just simple language that leads to cognitive ease, it's making our messages memorable. What works?

- · Repetition
- · Rhyming
- · Easy language
- · Font and attractive layout

The first three are basics of rhetoric and we could add heaps more.

# But system one lets you down...

Our system one brain likes neat patterns and is happy to jump to conclusions: if A, then B. It doesn't keep track of alternatives. Our system one brain constructs a story that makes us feel comfortable. Why? Because it's coherent, rather than complete. It's how we can make sense of a complex world.

#### ...and leads to biases

# Overconfidence and optimism

As long as we can believe in the quality of our story, we may not search out other evidence. Doubt and ambiguity are discounted.

# Framing and anchoring

How an issue is framed allows us to jump to a story we're comfortable with.



#### Affect

We'll jump to conclusions based on our beliefs and not search for evidence to the contrary. We let our emotional preferences cloud our judgment.

#### **Substitution**

Our system one brain substitutes a simpler question for a more complex one.

#### **Availability**

We retrieve information that's easy and available. And if we've had an emotional experience that's likely to stay with us, it's available and easy to retrieve.

# The sunk loss fallacy

We persist with projects because we're emotionally committed to them and have sunk so much effort and resources into them.

#### Affective forecasting

We don't know our future selves that well.

# **Overlooking statistics**

When we're given statistics, we're likely to make accurate inferences. But when we're given statistics and a story, we tend to go with the story.



# **Overlooking luck**

We want to find a causal link. But maybe it was just luck. We'll invent a story that sees causes that don't exist.

# The hindsight illusion

We love revising history. It's often such a good story.

These are just some possible biases.

# SYSTEM TWO TO THE RESCUE

# The simple argument

We need our system two brain to evaluate. It requires us to slow down; search for, and work through, evidence; and be aware of how system one works. But it takes effort and why use effort when system one can give you a decision and conclusion fix?

# System two needs discipline and self-control...

And that's hard work. System two follows rules, compares and considers options. But we pay a price for it. It's tiring and switching between tasks or, even worse, multi-tasking will drain our system two brain. It operates slowly and allows for critical thinking.

But if it gets tired or overloaded, system one is a huge attraction. When system two gets busy and is overloaded, we lose our self-control and ability to direct our thoughts.

Cognitive, emotional and physical effort all draw from the same source, ie glucose. So, all three deplete our system two brains and diminish self-control. So, being tired will make Tim Tams attractive, even though you're determined to diet. The experiment with Israeli parole board judges also illustrates this point. (More people got parole when the judges weren't hungry: first thing in the morning and after lunch were good times for prisoners wanting parole.)

# ...and being in a state of flow is great.

When you're absorbed and fully concentrating on something your system two brain is working well. (You're also probably happy as well.) The neuroscientists agree as well.

# Memory versus experience is a problem...

One important thing your system two brain will find hard to grapple with is memory versus the actual experience. Our remembering self is often in control. And we often remember the last part of an event or meeting.

So, confusing memory with experience is a cognitive illusion. The experienced self does not have a voice; the remembering one does. And it may be sometimes wrong. But it keeps score, governs what we learn from living, and governs our decisions.

System two may well be able to distinguish between the experiencing and remembering self. But watch out. One of our favourite quotes is:

"I've learned that people will forget what you said, people will forget what you did, but people will never forget how you made them feel." Maya Angelou

# ...and beware of assuming system two will get it right for you

When we're dealing with complex problems or difficult situations, here's an ideal situation. Take for example the issue of how to provide more affordable homes in New Zealand. You could define this issue in a huge number of ways and also come up with a massive number of options. It would take us years to use our system two brains to work through them all and arrive at an answer.

And in reality we never do this. Instead, we work through a limited number of options (and values) to arrive at an acceptable policy. Or we accept this is such a complex (wicked) problem we need a more iterative, trial and error approach. Does this involve intuitive thinking? Very possibly. Does it also involve focusing on the actual experience (what worked), rather than memory (high profile opposition to new public housing in Remuera). Yes.

We need system two thinking, but in reality, it'll never be able to look at every possible option.







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