

How to make better decisions

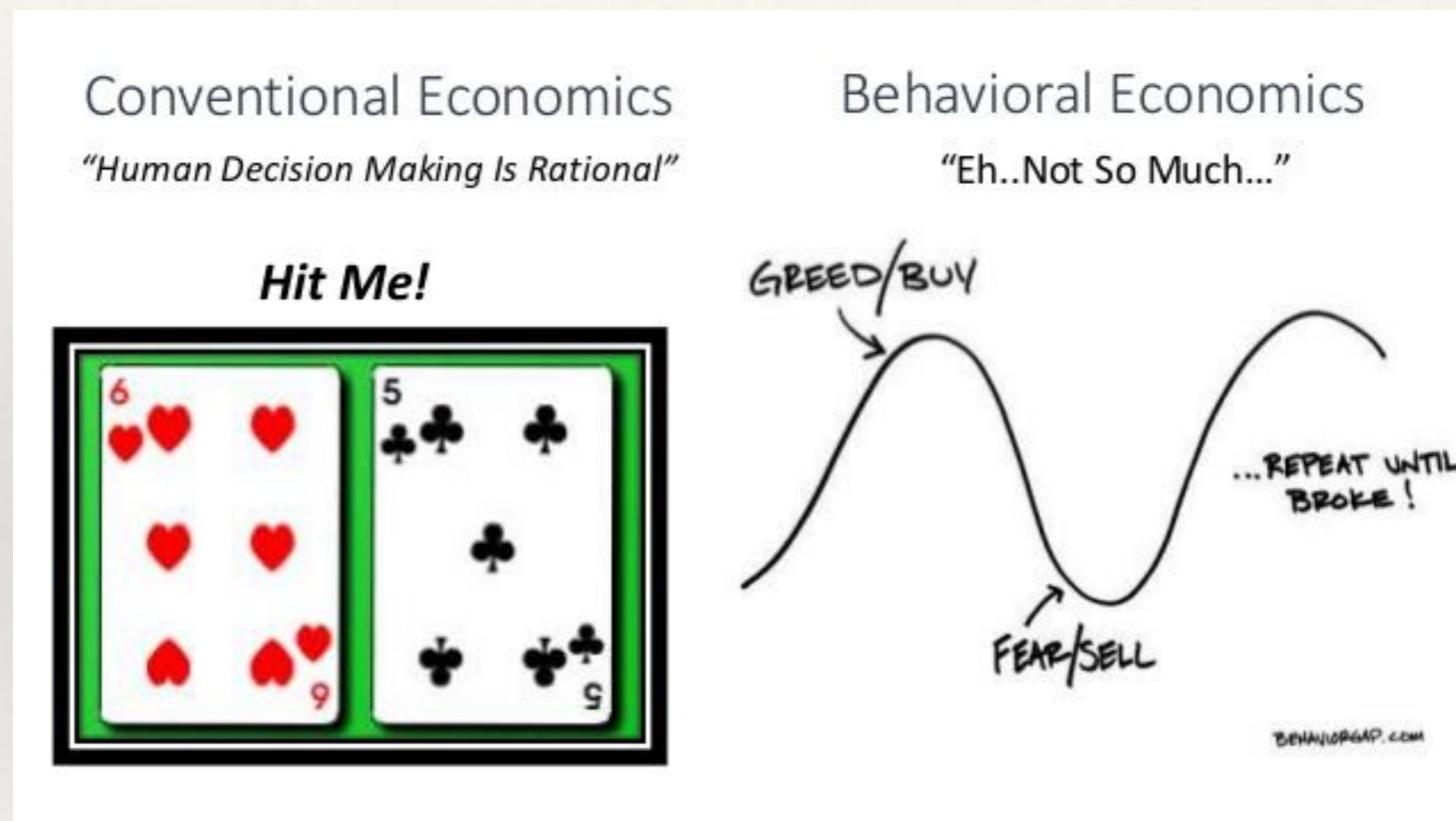
Behavioural economics and cognitive psychology insights

By Corina Vladut

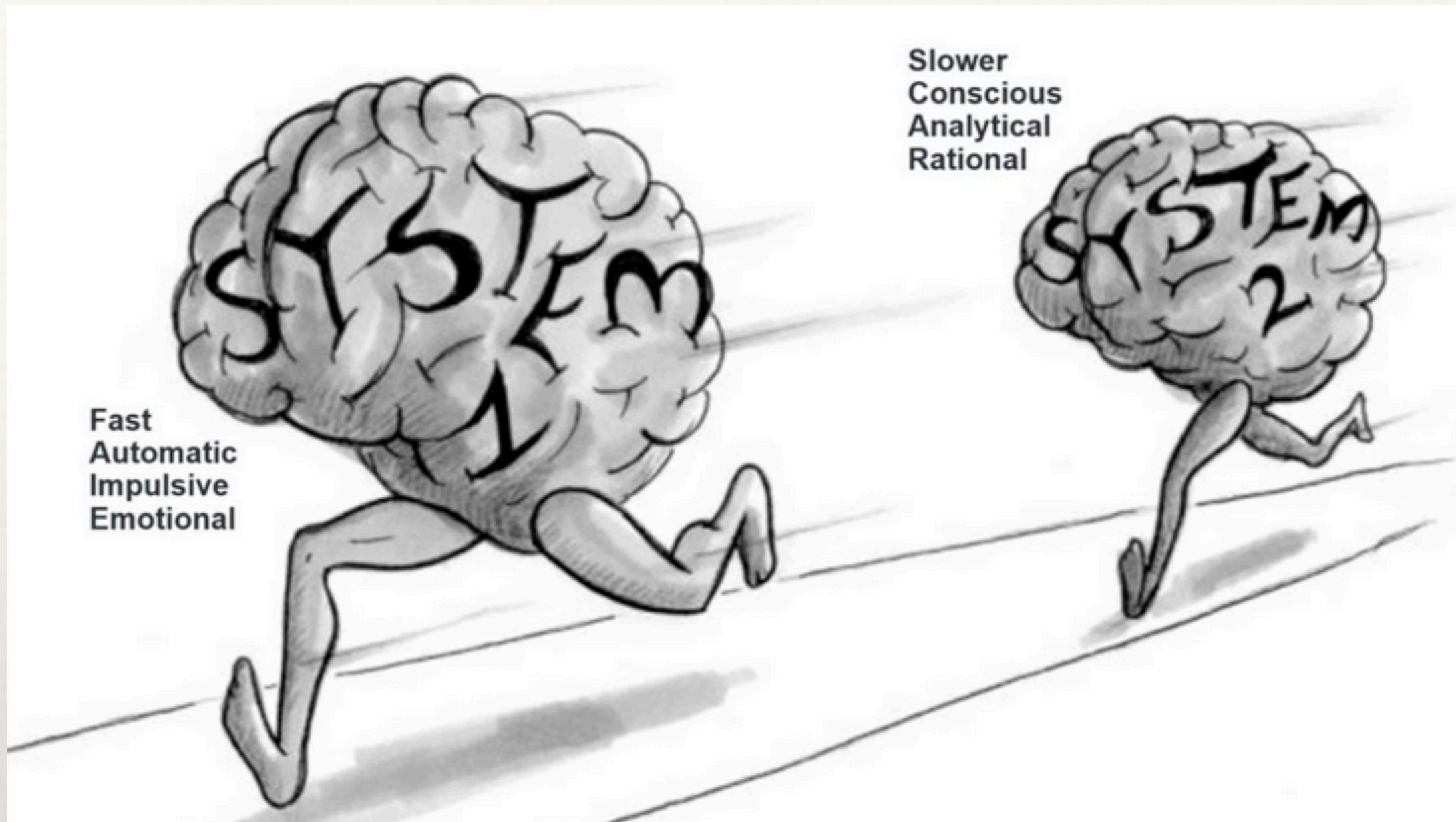
What we're covering

- ❖ Intro to Behavioural economics
- ❖ Kahneman's system thinking
- ❖ Mental heuristics + tips and tricks
- ❖ Summary
- ❖ A final thought on a personal note ;)
- ❖ Resources

From “economic man” to behavioural economics







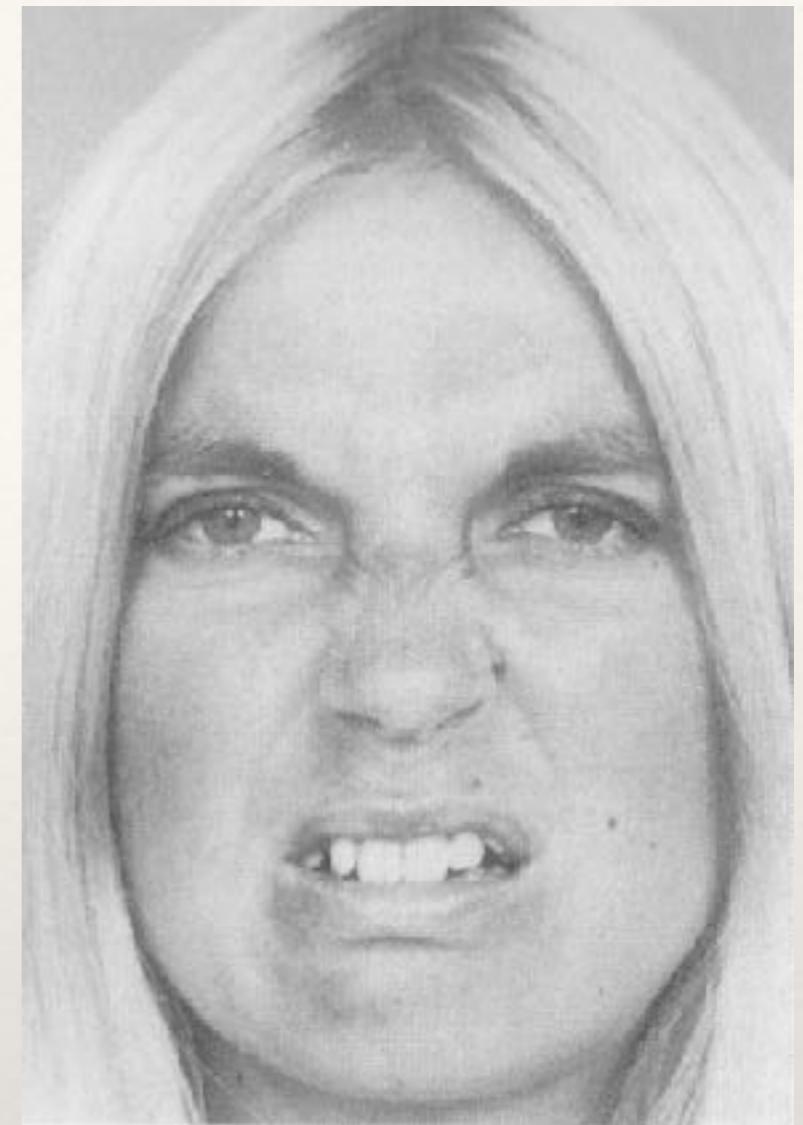
D. Kahneman

The two systems of thinking

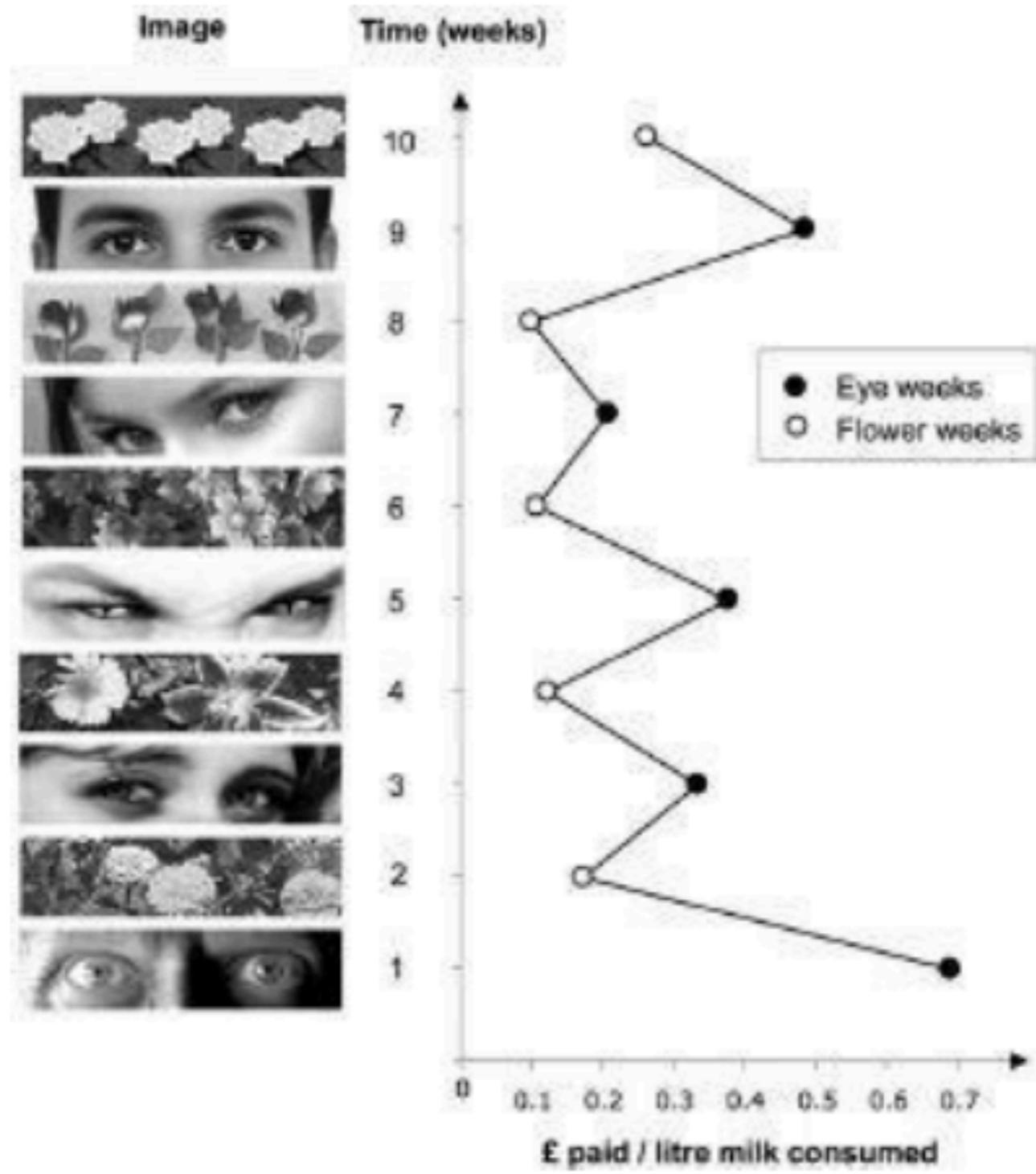
System 1 operates automatically and quickly, with little or no effort and no sense of voluntary control.

=> perceiving, having emotion reactions to things etc

#automatic



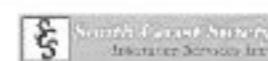
System 1



System 2 allocates attention to the effortful mental activities that demand it, including complex computations.

= subjective experience of agency, choice, and concentration.

#efortfull



BUSINESS FINANCIAL STATEMENT

The following financial statement forms is not mandatory. They are made available as guides to the type of information needed. Any statement in comparable form, or on your accountant's letterhead, are equally acceptable under most circumstances. Please let your tax statements are preferred. Returns should be completed where they are mentioned.

Financial Statement of _____ (Name) Street Address, City, State ZIP)	
AS OF _____ (Date)	
CURRENT ASSETS	
Cash on Hand (not in bank).....	Trade payable (Schedule 6).....
Cash in Banks (Schedule 1).....	Accrued expenses.....
Stocks and Bonds (Schedule 2).....	Accounts Payable.....
Accounts Receivable (Trade).....	Accrued portions of long-term debt..... (due within one year)
Notes receivable (Schedule 3).....	Other current liabilities (estimated).....
Cash value of life insurance.....	
Other current assets (estimated).....	
TOTAL CURRENT ASSETS	
PROPERTY	
Real Estate (Schedule 4).....	Long term liabilities.....
Business furniture & equip. (Schedule 5).....	Real estate debt (Schedule 4).....
Other assets and investments (itemize).....	Pending or established obligations (Schedule 7).....
TOTAL FIXED ASSETS	
TOTAL ASSETS	
CURRENT LIABILITIES	
Net Sales \$.....	NET WORTH
Net Profit \$.....	TOTAL EQUITY/LOSS
Drawing or owner's salary \$.....	
Contingent liability \$.....	

Puzzle 1

Do not try to solve it but listen to your intuition:

A tennis racket and a ball cost \$1.10.

The racket costs 1 dollar more than the ball.

How much does the ball cost?



“A number came to your mind. The number, of course, is 10¢. The distinctive mark of this easy puzzle is that it evokes an answer that is intuitive, appealing, and wrong.

Do the math, and you will see. If the ball costs 10¢, then the total cost will be \$1.20 (10¢ for the ball and \$1.10 for the bat), not \$1.10. The correct answer is 5¢. It's safe to assume that the intuitive answer also came to the mind of those who ended up with the correct number—they somehow managed to resist the intuition.”

Puzzle 2

All roses are flowers.

Some flowers fade quickly.

Therefore some roses fade quickly.



This argument is flawed, because it is **possible that there are no roses among the flowers that fade quickly**. Just as in the bat-and-ball problem, a plausible answer comes to mind immediately.

Overriding it requires hard work—the insistent idea that “it’s true, it’s true!” makes it difficult to check the logic, and most people do not take the trouble to think through the problem.



Mental heuristics

Biases

Prospect theory

Kahneman & Tversky, 1979

Our willingness to take risks is influenced by the way in which choices are framed, i.e. it is context-dependent. Have a look at the following classic decision problem:

Which of the following would you prefer:

1. *A) A certain win of \$250, versus
B) A 25% chance to win \$1000 and a 75% chance to win nothing?*

2. *How about:
C) A certain loss of \$750, versus
D) A 75% chance to lose \$1000 and a 25% chance to lose nothing?*

=> responses are different if choices are framed as a gain (1) or a loss (2). When faced with the first type of decision, a greater proportion of people will opt for the risk-less alternative A), while for the second problem people are more likely to choose the riskier D).

This happens because we dislike losses (**loss-aversion**) more than we like an equivalent gain. Giving something up is more painful than the pleasure we derive from receiving it.

Anchoring bias

- Was Gandhi more or less than 144 years old when he died?
- How old was Gandhi when he died?

Anchoring = the common human tendency to rely too heavily on the first piece of information offered (the “anchor”) when making decision.

Anchoring

Exploratorium study

- environmental damage caused by oil tankers in the Pacific Ocean
- annual contribution “to save 50,000 offshore Pacific Coast seabirds from small offshore oil spills, until ways are found to prevent spills or require tanker owners to pay for the operation.” This question requires intensity matching: the respondents are asked, in effect, to find the dollar amount of a contribution that matches the intensity of their feelings about the plight of the seabirds.

When no anchor was mentioned -willing to pay \$64, on average.

When the anchoring amount was only \$5 - contributions averaged \$20.

When the anchor was a rather extravagant \$400 - the willingness to pay rose to an average of \$143.

Anchoring - “Dating” bias

- ❖ How happy are you?
 - ❖ How many dates have you had last month?
 - ❖ 0 correlation
-
- ❖ How many dates have you had last month?
 - ❖ How happy are you?
 - ❖ correlation .66

Availability bias

Availability serves as a mental shortcut if the possibility of an event occurring is perceived as higher simply because an example comes to mind easily (Tversky & Kahneman, 1974)

Examples:

- A person may deem pension investments too risky as a result of remembering a family member who lost most of her retirement savings in the recent recession.
- A dramatic event temporarily increases the availability of its category. A plane crash that attracts media coverage will temporarily alter your feelings about the safety of flying.



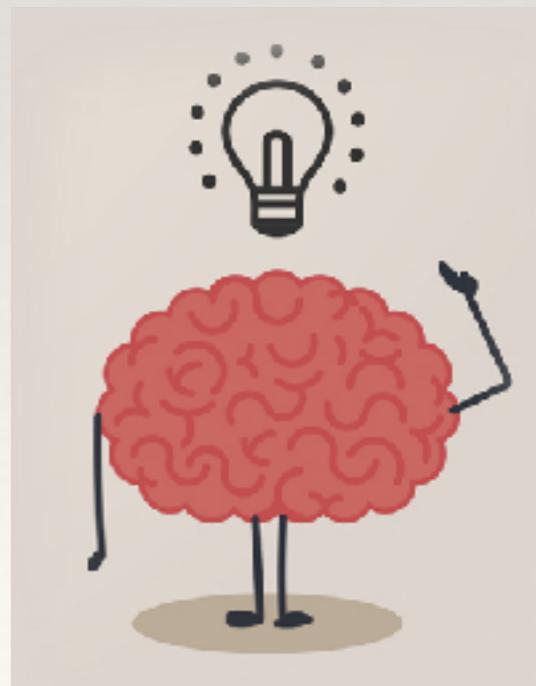
Availability

Make the effort to reconsider your impressions and intuitions by asking such questions as:

“Is our belief that your fear of flight might be due to a few recent instances of flight accidents?”

or

“Could it be that I feel no need to get a flu shot because none of my acquaintances got the flu last year?”



Survivorship bias

Everybody loves a good success story - > our perception of reality is “interfered” with

= tendency to assume and apply what worked for someone else to our own situation, without looking at every side of the story

History remembers winners, but rarely losers, and as such, we generally overvalue the lessons we can learn from the people who made it.



Mind-blown so far?
Wait, there is moreeeeeeeeeee



OR 2 BAT MEN?

Confirmation bias

Confirmation bias = ensuring that we find evidence that supports our existing way of thought. It tells us what we want to hear.

That's why it's so difficult for people to change their minds about something once they have decided on a particular position. i.e political views.

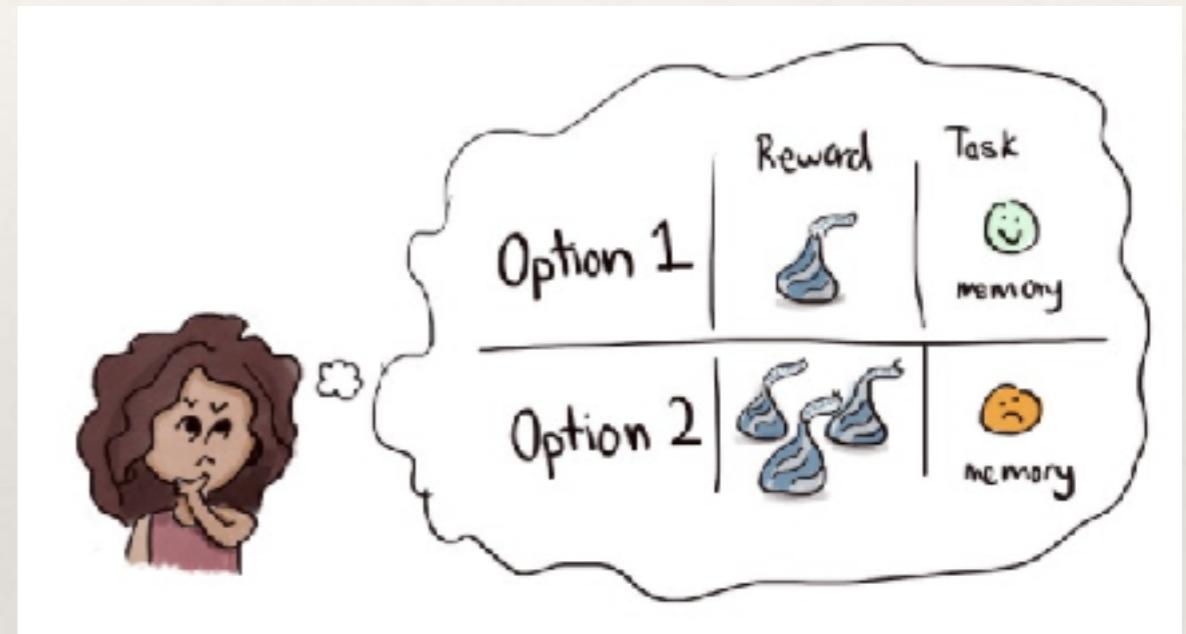
The longer you believe something, and the stronger your position, the more likely you are to torture reality to fit a false narrative that supports you.



Distinction bias

Option 1: I'll give you *one* chocolate candy if you think of a time in your life when you experienced personal success.

Option 2: I'll give you *three* candies if you think of a time in your life when you experienced personal failure.



Distinction bias

In studies, about two-thirds of people opt for more chocolate. More is better, right?

- negative memory for more chocolate = were significantly less happy than those who chose a positive memory for less chocolate.
- no significant difference between the two groups when it came to feelings about eating the candies.

Distinction bias

2 different modes - compare vs experience

When making a choice, we are in comparison mode — sensitive to small differences between options. But when we live out our decisions, we are in experience mode- there are no other options to compare our experience to.

Humans are not very good at predicting how quantitative differences, those involving numbers, affect happiness. In the experiment, people assumed 3 chocolates would bring them three times the happiness. But it didn't.

We make the same mistake in real life all the time. We think a 1,200 square foot home will make us happier than a 1,000 square foot home. We think earning \$70,000 a year will make us happier than earning \$60,000 a year.

Distinction bias

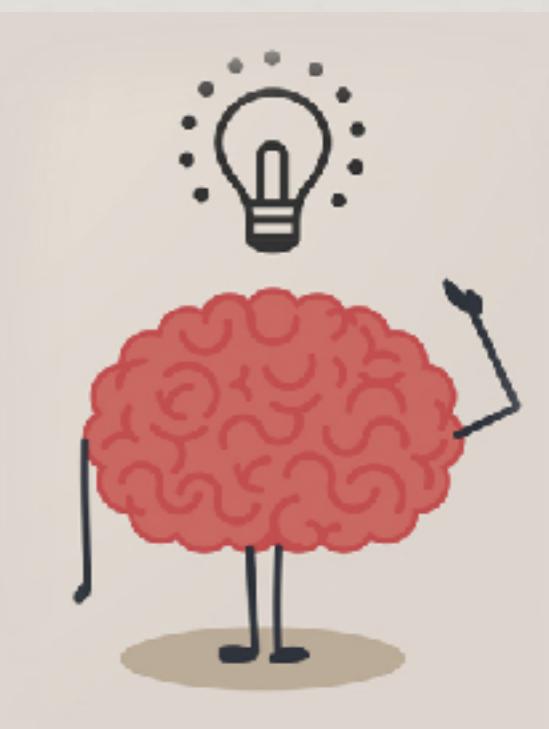
1. Don't Compare Options Side by Side

+ Evaluate each choice individually and on their own merit.

2. Know Your “Must-Haves” Before You Look

3. Optimize for things you can't get used to

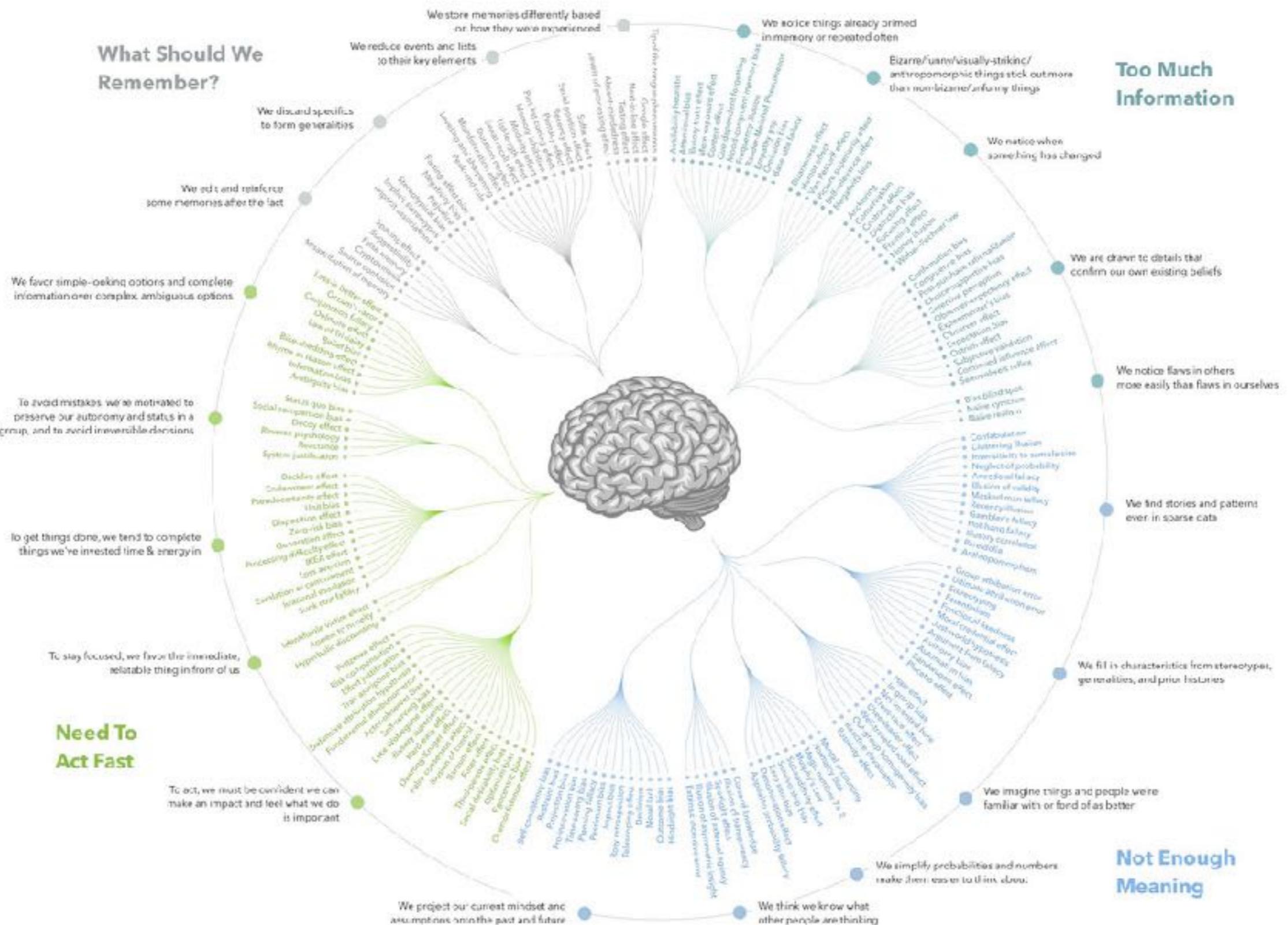
As a rule of thumb, your happiness will adjust back to anything that is stable and certain like your income, the size of your house, or the quality of your TV. These things do not change day to day so you can expect your happiness level to fade. On the other hand, **infrequent or uncertain positive events**, like quality time with friends or an exciting road trip, occur too sporadically to get used to. Inserting more of these hard-to-adapt-to experiences in your life will create longer lasting happiness.



Well, not much more..

Except this huge list of biases!!!!!!

COGNITIVE BIAS CODEX, 2016



Bonus for the scientists
(wink emoticon)

HOW SCIENTISTS FOOL THEMSELVES — AND HOW THEY CAN STOP

COGNITIVE FALLACIES IN RESEARCH



HYPOTHESIS MYOPIA

Collecting evidence to support a hypothesis, not looking for evidence against it, and ignoring other explanations.



TEXAS SHARPSHOOTER

Seizing on random patterns in the data and mistaking them for interesting findings.



ASYMMETRIC ATTENTION

Rigorously checking unexpected results, but giving expected ones a free pass.



JUST-SO STORYTELLING

Finding stories after the fact to rationalize whatever the results turn out to be.



DEVIL'S ADVOCACY

Explicitly consider alternative hypotheses — then test them out head-to-head.



PRE-COMMITMENT

Publicly declare a data collection and analysis plan before starting the study.



TEAM OF RIVALS

Invite your academic adversaries to collaborate with you on a study.



BLIND DATA ANALYSIS

Analyse data that look real but are not exactly what you collected — and then lift the blind.

Humans are remarkably good at self-deception. But growing concern about reproducibility is driving many researchers to seek ways to fight their own worst instincts.

Summary

- ❖ Decision-making is underpinned by a fast-thinking **System 1** & a slow-thinking **System 2**
- ❖ **Heuristics** are mental shortcuts that can produce systematic errors (biases)
- ❖ Biases emerge when the fast-thinking of S1 is not fact checked by S2
- ❖ Be aware of the:
 - ❖ **loss-aversion** bias -are you responding to losses more strongly than gains?
 - ❖ **anchoring** bias - don't let numbers influence your thinking
 - ❖ **availability** bias when trying to make predictions and identify likelihoods
 - ❖ **survivorship** bias when presented with success stories
 - ❖ **confirmation** bias - check if your data compatible with your beliefs
 - ❖ **distinction** bias when comparing options

Final thoughts on irrationality...

“Now, if people were simply perfectly rational creatures, life would be wonderful and simple. We would just have to give people the information they need to make good decisions, and they would immediately make the right decisions. Sadly, life is not that simple and most of the problems we have in modern life are not due to lack of information, which is why our repeated attempts to improve behaviour by providing additional information does little (at best) to make things better.

Rational perspective = more optimistic view of life vs depressing behavioural economics perspective (thinking about the people we interact with both professionally and socially as myopic, emotional, vindictive, unsure about what they want, easily confused, etc.)”

What can we do for us and others?

- Self-awareness
- Design challenges

"As long as we build the world around us assuming that people have limitless cognitive capacity and no emotions to interfere with our decisions, we will fail, and we will fail often and on larger scales. But, if we truly understand human limitations and build around this understanding, we will end up with products and markets that are much more compatible with our human ability and will ultimately allow us to flourish.

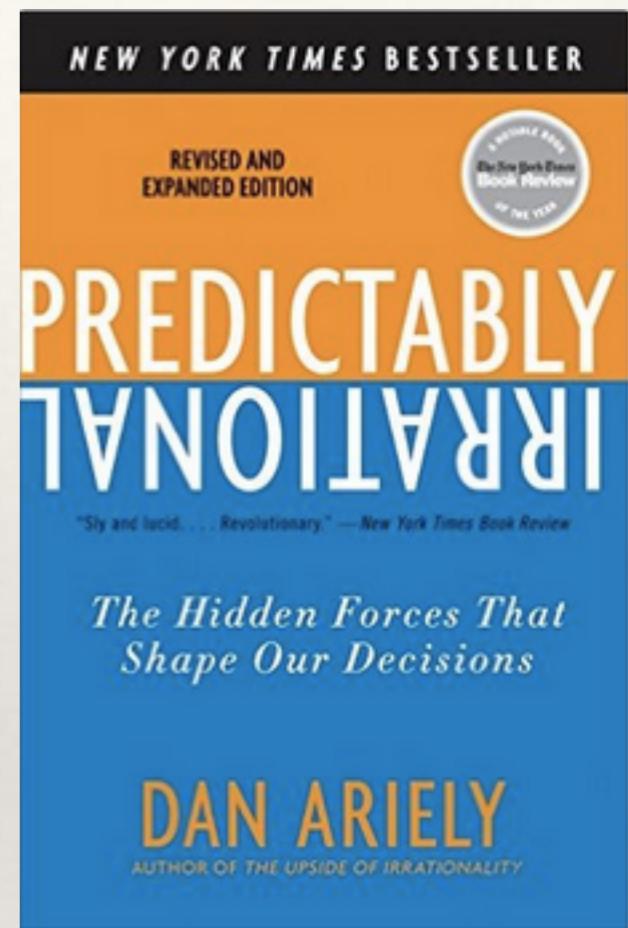
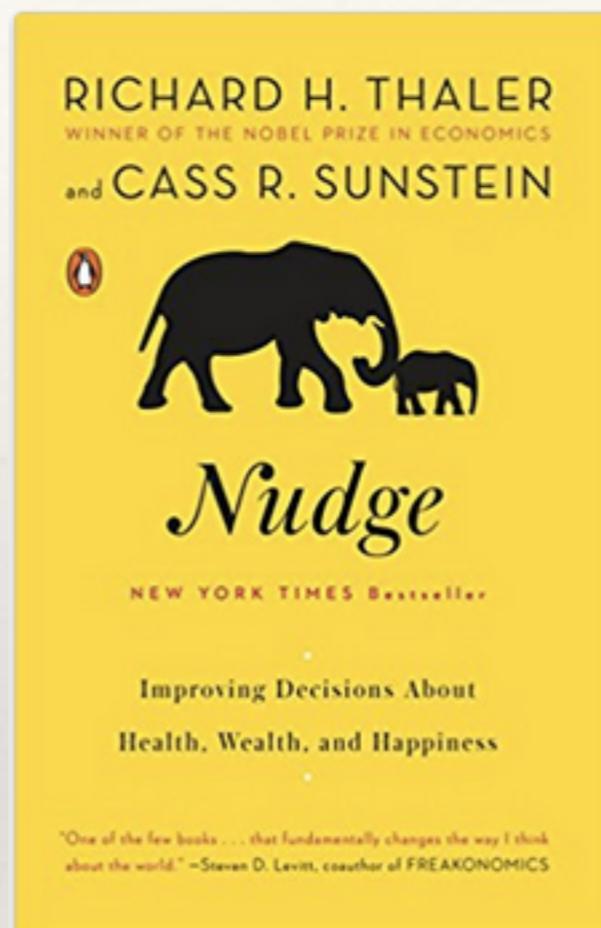
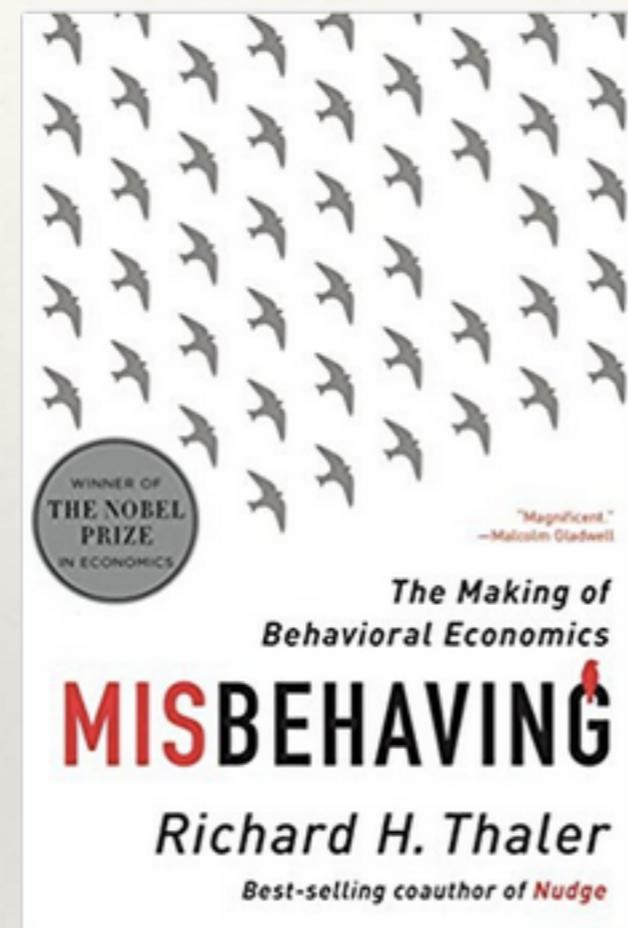
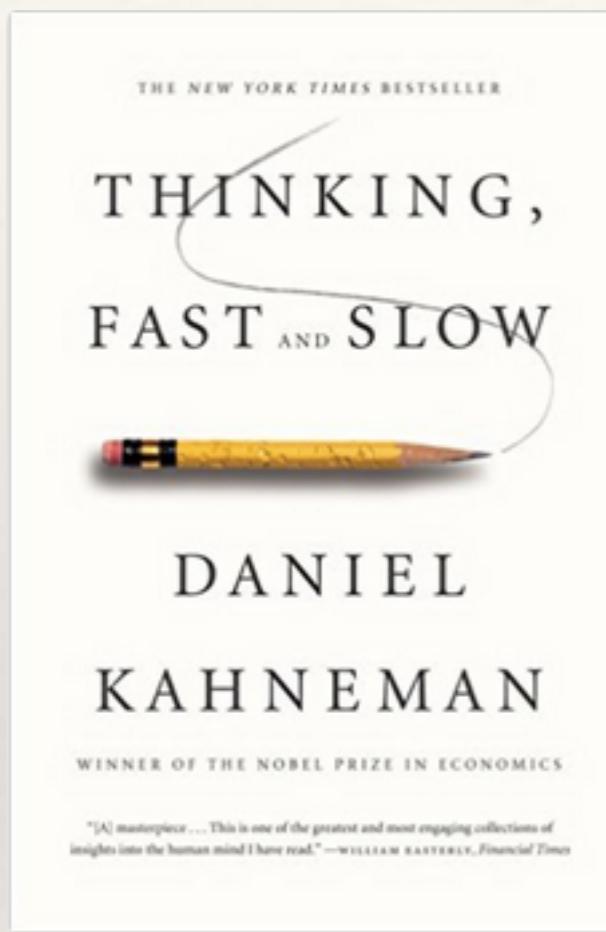
In the same way that we would never design a car assuming that people have an infinite amount of hands and legs to operate the car, we must also recognise our social, cognitive, emotional, and attention limitations as we design our environment. This is a challenge, but this is also the path of hope. "

“Momento mori” / “Remember your fallibility” / “Remember your irrationality.”

“Whatever the phrase is, recognising our shortcomings is a crucial first step in the path to making better decisions, creating better societies and fixing our institutions.”

–Dan Ariely

Resources



Other favourites

The willpower instinct: How Self-Control Works, Why It Matters, and What You Can Do to Get More of It

Drive: The Surprising Truth About What Motivates Us

Questions

The number of **questions** allowed is 3.
How many questions do you want to ask?