Train your brain to make better choices

Understanding the decision-making process is essential. It can give us the power to break patterns of behavior and change our lives for the better. Reading time ~ 15 min

Why is it important to understand decision-making?

Every day we make a ton of decisions without even thinking about it — what to eat, what to wear, who to spend our time with, what to say, and how to say it. And it's not limited to our personal lives. Business and work are almost exclusively about making decisions.

However, our decisions are strongly affected by our physiology. Our brain consists of three key regions: the brainstem, the limbic system, and the cortex. The prefrontal cortex is the control center of the brain. It regulates our thoughts, actions, and emotions and helps us make more rational decisions.

When we are emotionally charged or stressed, the limbic system takes over. This brain area is responsible for instinctive behavior and rapid emotional responses. It makes us go into autopilot mode, falling back on pre-set reactions or answers we learned from previous experiences.

What happens when we're stressed?

Stress is our body's physiological response to dangerous situations in an effort to protect us from harm. While stress can be good for you in the short term, it may also cloud your judgment and affect the quality (https://pubmed.ncbi.nlm.nih.gov/27213236/) of your decisions.

Here are some things that happen under stress:

1. **We rely more on instinctual feelings (https://www.sciencedirect.com/science/article/pii/S2352289515300187)** and are more likely to fall back on cognitive biases. Cognitive biases are thinking errors that happen because we tend to take shortcuts when processing information. These shortcuts are

usually helpful when we need to get through the day but can backfire when we have to make important decisions.

2. **We lose focus.** This happens because stress downregulates the prefrontal cortex, an area of the brain that helps us concentrate (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2907136/) on the task.

3. **We take more risks.** Research shows (https://onlinelibrary.wiley.com/doi/10.1111/ejn.13395) that people make riskier choices shortly after experiencing stress and tend to neglect their decisions' negative consequences on others. This insight comes from a 2016 study by Samuel Bendahan et al. published in the European Journal of Neuroscience.

Outside of stressful situations, are most of our decisions rational?

Not really. Most of the decisions we make are not rational. Most of our decisions are made on autopilot and then rationalized by our logical brain with a coherent, plausible explanation.

In his book "Thinking, Fast and Slow," Professor Daniel Kahneman explains that we have two systems for thinking and making decisions. One is rational, and the other one is intuitive.

The rational system is connected to the brain's prefrontal cortex and is capable of in-depth analysis and logical thought. It is also slow and can only perform one task at a time. The intuitive system is fast and automatic. This system is a great multitasker and is responsible for most of the things you say, do, and think.

Why aren't our decisions rational?

Our decision-making process is the product of evolution. Monkeys have the same cognitive biases as humans. Dr. Laurie Santos, a psychologist at Yale University, has been investigating (https://www.ted.com/talks/laurie_santos_a_monkey_economy_as_irrational_as_ours/transcript) how deep-seated these cognition mistakes are. In a series of experiments called Monkeynomics, Dr. Santos taught a troop of monkeys to use money. It turns out monkeys fall victim to the same cognitive biases. For example, they exhibit loss aversion (http://news.yale.edu/2005/06/20/humans-rational-and-irrational-buying-behavior-mirrored-monkeys) – the tendency to prefer avoiding losses to acquiring equivalent gains.

If our biases and irrational decisions are so deeply rooted in our evolutionary past, they may be impossible to change.

"What we learn from the monkeys is that if this bias is really that old, if we really have had this strategy for the last 35 million years, simply deciding to overcome it is just not going to work," Dr. Santos explains, "We need other ways to make ourselves avoid some of these pitfalls."

While we may not be able to change ourselves, being aware of our cognitive limitations can give us the power to reduce irrationality.

Why does our brain prefer fast, intuitive thinking?

Because it's trying to preserve energy. All biological systems conserve energy to guarantee survival. This may seem strange in a world where you can find food on every street corner, but our bodies live by the same laws they did 35 million years ago.

Your brain consumes 20% (https://www.scientificamerican.com/article/why-does-the-brain-need-s/) of the energy your body generates, and decisions that require willpower or self-control are huge energy drains. Exercising willpower takes a heavy toll on mental energy levels and glucose levels – the brain's preferred type of fuel.

Our first impulse is always to use the intuitive thinking system, or the brain's limbic part. Then, all we need to do is make our impulsive decisions look rational. Voilà! Energy is preserved, and our ego is left intact.

For our brain, the best decision is not having to decide at all. The next best thing is to use a pre-set template or go with the default option. These kinds of decisions don't suck up a ton of energy. This is why we frequently end up going with the default option and put off making a decision as long as possible.

We also hate having too many choices – a phenomenon called choice paralysis or analysis paralysis. We end up choosing anything just to get the process over with.

For example, a 2000 study (https://faculty.washington.edu/jdb/345/345%20Articles/Iyengar%20%26%20Lepper%20(2000).pdf) by Sheena Iyengar and Mark Lepper showed that shoppers were less likely to buy jam when they had more options to choose from. In the study, 30 percent of shoppers made a

purchase when the selection was limited to 6 types of jam. However, only 3 percent made a purchase when there were 24 types of jam to choose from. These findings were published in the Personality Process and Individual Differences journal.

Making decisions is simply too much work. That's why our brains opt out of making them whenever they can.

Does timing influence our decisions?

Timing directly influences our decisions. Present bias makes us focus on the here and now instead of thinking about the future. According to Professor Dan Ariely (https://www.bbc.com/news/science-environment-26258662), this is one of the most important biases: "That's the bias that causes things like overeating and smoking and texting and driving and having unprotected sex." Ariely demonstrates how present bias works by explaining that if offered half a box of chocolates in a year's time or a whole box in a year and a day, most of us wouldn't hesitate to wait an extra day to double our chocolate. But if offered half a box of chocolates right now or a whole box of chocolates tomorrow, we'll probably choose to take half a box of chocolates now. Waiting a whole extra day seems impossible when faced with the immediate promise of chocolate. Present bias makes our brain act like a 3-year-old kid in a toy store.

Does the time of day influence our decisions?

Yes. Mornings are the best time to make decisions. The main reason is that every decision we make drains our energy, which means that we experience a phenomenon called "decision fatigue" toward the end of the day. We have more resources to use our prefrontal cortex at the beginning of the day. According to Professor Baba Shiv (https://www.youtube.com/watch?v=SS4F1U5FuNM#at=141), our biochemistry also has a lot to do with it. Dr. Shiv says serotonin levels are higher in the mornings, which helps calm our brain so we can think rationally.

A 2010 study (http://blogs.discovermagazine.com/notrocketscience/2011/04/11/justice-is-served-but-more-so-after-lunch-how-food-breaks-sway-the-decisions-of-judges/#.Ufi562TOlgJ) by Shai Danziger et al. is a great example. It found that judges were likelier to grant parole requests early in the morning and immediately after taking breaks. The longer the judges worked, the less likely they were to grant parole to prisoners.

Danziger thinks that the judges' behavior can be easily explained. All repetitive decision-making tasks drain our mental resources. We start suffering from "choice overload" and start opting for the easiest choice. And when it comes to parole hearings, the default choice is to deny the prisoner's request. The more decisions a judge has made, the more drained they are, and the more likely they will make the default choice. Taking a break replenishes them. This finding was published (https://www.pnas.org/doi/full/10.1073/pnas.1018033108) in PNAS.

The decision-making part of the brain is like a muscle — the more we work it, the more tired it gets. So it's best to make major decisions before midday whenever possible. If you have to make an important decision later in the day, make sure to schedule a break beforehand.

What we can do to be more objective?

- **Make your decisions in the morning.** Mornings are the best time to make decisions. Your serotonin and dopamine levels are high, and you're not bogged down by decision fatigue. If you have to make an important decision in the afternoon, try taking a nap or taking a break to reset your brain.

- **Eat first.** We all know the rule about not going grocery shopping on an empty stomach. Apply a similar rule here, and don't make decisions when you're hungry. Eat before meetings or phone calls where you are expected to make decisions.

- **Limit your choices.** We often settle for default options or let others decide for us because decisions are too much work for our brain. This is especially the case when we have more than two options to choose from. You can help your brain by cutting out the extra options you don't need. Narrow your choices down to a tiny shortlist, and you'll have an easier time making a final decision.

- **Open a window.** Keeping CO2 levels low in your home or workspace is important (https://thinkprogress.org/exclusive-elevated-co2-levels-directly-affect-human-cognition-new-harvard-study-shows-2748e7378941/) for all cognitive functions, not just decision-making. Adding plants will certainly help, but try to keep fresh air circulating as well, particularly in high-traffic areas.

- **Use a foreign language.** If you know one, this could be really useful. Particularly when there are lots of emotions involved, or you want to protect yourself against things like emotional

marketing strategies. Try explaining the situation to yourself in a foreign language and see if you process the information differently. Researchers Boaz Keysar et al. found (https://www.jstor.org/stable/41489753?seq=1) that using a foreign language reduces decision-making biases. You can check out the 2012 paper in Psychological Science.

- **Go to sleep**. It will help lower stress levels, which is important for rational decision-making. For example, research shows (https://www.sciencedirect.com/science/article/pii/B9780124201682000302#:~:text=Sleep%20loss%20can%20also%20increase,the%20willingness%20to%20take%20risks.) that losing a whole night's sleep caused people to adopt much riskier gambling strategies.

- **Meditate**. A 2013 study (http://pss.sagepub.com/content/25/2/369) concluded that 15 minutes of mindfulness meditation could help people make smarter choices. This finding was made by Andrew Hafenbrack and his team and published in Psychological Science. Meditation significantly reduces the risk of making impulsive decisions. Next time you need to make a decision, use meditation techniques, take a few deep breaths and think about the pros and cons of your next move pragmatically and mindfully.