

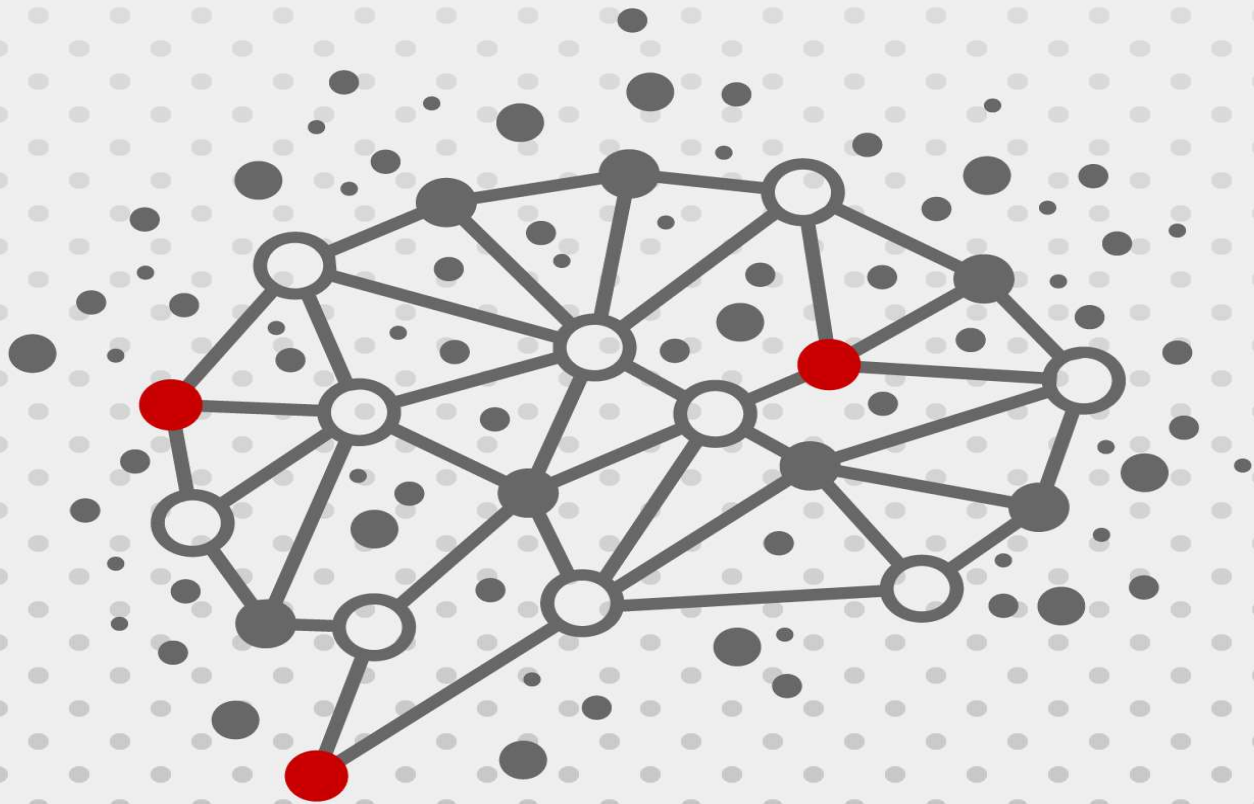
SUMMARY

BY ALYSSA BURNETTE

MINDWARE

TOOLS FOR SMART THINKING

BY RICHARD E. NISBETT



Summary of “Mindware” by Richard E. Nisbett

Written by Alyssa Burnette

Hack your brain’s software and improve your
thinking.

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Introduction

Have you ever made an irrational assumption? We would all like to think of ourselves as smart, reasonable, rational human beings, so you might be tempted to say, “Probably not!” (But even if you do, that’s a lie!) Because, in reality, every single human being on the planet makes irrational assumptions from time to time. And to put this into context, we’ll start by taking a look at a good example of irrational thinking in progress: recently, I sent a text to a close friend. We talk all the time and we have never had any disagreements or unpleasant words in the entire time we’ve known each other. So, the facts of the situation are simple: I love my friend and, judging by her behavior, I have every reason to believe that she loves me in return. But my friend didn’t reply to my text for a couple of days. So, instead of assuming that she might have been busy or that she wasn’t feeling well, I instantly jumped to one conclusion: she hates me and doesn’t want to talk to me any more.

Both of the former conclusions-- that she was preoccupied or ill-- would have made more sense and been more rational. But because I felt anxious about our lack of communication, I gave in to an irrational assumption that had no bearing on reality. And as silly as this example sounds, I bet it’s something you have done from time to time as well. Anybody can pass two people whispering and suddenly, irrationally wonder, “Are they talking about me?” Anybody can look at the people around them and think, “What if they all think I look weird?” All of these are common examples of logical fallacies that humans give into from time to time. But over the course of this summary, we’ll explore why our brains do this and learn how we can hack our mindware to avoid these unreasonable conclusions.



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Does Correlation Imply Causation?

If you're an academic, then you probably know that connecting correlation and causation is one of your hardest tasks in any given research project! In fact, whether you're a researcher or a lawyer, it takes a lot of dedicated effort and solid evidence to prove that a particular action was irrefutably caused by a certain event. That makes sense, right? After all, if you want to prove that someone committed murder, you would need to provide evidence like a knife that has both the victim's blood and the perpetrator's finger prints on it. Your evidence would be even better if you had found that knife in the murderer's apartment, hidden along with some bloody clothes and something belonging to the victim! Why would these things help your case? Because they could prove, beyond a shadow of a doubt, that your suspected murderer was in suspiciously close proximity to the victim with a weapon. When these facts are analyzed alongside the victim's blood and dead body, you can argue that the victim's death occurred as a result of your suspect's actions. In this case, correlation proves causation.

All of these things make sense in the context of a murder investigation. They have to, because if you want to convict someone of taking another human being's life, you need solid evidence to prove that something was caused by a related action. Unfortunately, however, it's a different story when you're outside the confines of a court case. When they're not constrained by a legal burden of proof, human beings can jump to conclusions at the speed of light. As a result, we often assume that correlation implies causation, even when we have little evidence to prove it. But before we dive in to the logistics of human assumptions, let's take a moment to unpack some terminology and take a closer look at the thought problems we'll be examining in this book. For starters, it's important to affirm that correlation does not automatically equal causation! But sometimes it's easy to believe that it does and that's how superstitions get started.

To put this into context, let's take a look at a common superstition: the belief that it's bad luck if a black cat crosses your path. So, imagine that a black cat

crosses your path moments before someone pushes a piano out of a window and the piano falls on your head. (Because we might as well make this hypothetical scenario sound like a Wile E. Coyote and Road Runner cartoon!) Did the presence of the black cat on the street below cause someone in a different building several feet above you to push a piano out of a window? Of course not! The cat and the piano are totally unrelated. In fact, it's highly likely that the person in the high-rise apartment had never seen the black cat and had no idea he was there. But even if the person above had seen the cat, it's also pretty likely that that person didn't say, "Oh look, a black cat! I should toss my grand piano out the window for no reason at all!" Instead, the black cat and the fall of the piano are two totally unrelated events. They might have occurred at the same time, but they have no connection to each other. Therefore, correlation does not equal causation in this scenario.

That sounds like a pretty rational explanation, right? But unfortunately, many people don't see it that way. Because bad things have sometimes happened after someone saw a black cat, superstitious people developed the belief that the presence of a black cat was a bad omen. As a result, people associated black cats with witchcraft or the devil and assumed that they must be a harbinger of nefarious magic. In the middle ages, black cats were burned, tortured, and driven out of town just because of this superstition! But of course, in reality, black cats are no different from any other cats! They are gentle, loving animals, just like any other cat, and they are not bad luck. But their history serves as proof of the dangerous consequences that can arise when people assume that correlation automatically implies causation.

So, now that we've considered an overview of some irrational assumptions and learned about correlation and causation, let's take a closer look and dig beneath the surface. In the next chapter, we'll learn about the impact of irrational assumptions and how you can hack your brain to improve your reasoning skills.



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Jumping to Conclusions

If jumping to conclusions was an Olympic sport, some people would win a gold medal! And, if we're honest, sometimes you and I are in that category as well. No one likes to think of themselves as a silly or irrational person, but the truth is that all of us can easily jump to conclusions without considering all the facts. It's as natural as breathing. Here's why: the simplest answer is that human beings naturally seek out evidence that reinforces our own conclusions. Whether those conclusions are positive or negative, we often want to believe that we're right, so we look for any evidence that will support our beliefs.

For example, let's say you believe that two co-workers are secretly talking about you behind your back. You believe that because you often see them whispering together and because they stop whispering whenever you come near them. No one likes to feel as though people are talking about them, so you might feel hurt or offended as a result of this behavior. And you might also start to analyze other moments or social cues for additional evidence of your co-workers' duplicity. For example, you might reflect on the time that they didn't invite you out to lunch or did not offer to bring you a coffee. When reading all these things together, you might consider your "evidence" to be conclusive proof that your co-workers dislike you and are gossiping about you behind your back. But in reality, it might be that they are simply planning a surprise birthday for you! And those other pieces of "proof" that they dislike you might be indicative of nothing more than garden-variety forgetfulness. But if you were presented with this example, what conclusion might you draw from the evidence? Would you first assume that your coworkers are gossiping about you or that they're planning a surprise birthday party for you?

Most of us would probably choose the former scenario because we probably have more experience with unkind gossip than with the pleasant surprise of a birthday party. Although we understand that both scenarios are equally viable, we might consider the negative option to be more likely because it fits

into our personal experience. And because we can connect it with an existing frame of reference in our heads, we assume it must be correct. So, as we consider this example, it becomes obvious that pretty much every human being has indulged these logical fallacies at one point or another. But why do we make unfounded assumptions? And why do we automatically attempt to gather evidence that will prove our point? Why are we not more concerned with objective truth? The author observes that this occurs because of a psychological principle known as the “representativeness heuristic.” To understand the representativeness heuristic and how it works in practical application, we can turn to the insights of psychologist Kendra Cherry. Cherry describes the representativeness heuristic by asserting that:

When making decisions or judgments, we often use mental shortcuts or "rules of thumb" known as heuristics. For every decision, we don't always have the time or resources to compare all the information before we make a choice, so we use heuristics to help us reach decisions quickly and efficiently. Sometimes these mental shortcuts can be helpful, but in other cases, they can lead to errors or cognitive biases. The representativeness heuristic is one heuristic that we use when making judgments. In this particular case, we estimate the likelihood of an event by comparing it to an existing prototype that already exists in our minds. Our prototype is what we think is the most relevant or typical example of a particular event or object.

The representativeness heuristic was first described by psychologists Amos Tversky and Daniel Kahneman during the 1970s. Like other heuristics, making judgments based on representativeness is intended to work as a type of mental shortcut, allowing us to make decisions quickly. However, it can also lead to errors. When we make decisions based on representativeness, we may be likely to make more errors by overestimating the likelihood that something will occur. Just because an event or object is representative does not mean its occurrence is more probable.”

Cherry’s explanation can help us identify the flaws of the representativeness heuristic. Once we are aware of these flaws, we can then apply our knowledge in our everyday lives to avoid making common logical mistakes and stop

jumping to conclusions. But now that we're aware of these logical fallacies, it's time to learn how to combat them.



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How to Think Logically

As you've probably guessed, the best way to combat logical fallacies is to improve your critical thinking skills. If you want to avoid irrational assumptions and logical pitfalls, then you have to hack your brain's software and give your mind a system update. By doing so, you'll be able to make informed decisions that are grounded in sound logic and facts. So, how can you sharpen your critical thinking skills? Well, it starts with identifying the common traps that seek to ensnare your brain and steer you off course. For example, just consider the many different arguments that are thrown at you from television, movies, music, and advertisements. Commercials play on your emotions by convincing you that you are fat, ugly, or unhappy and that their product can alleviate your distress. Similarly, politicians speak to your hopes or fears and promise you that they will create the world you want to see.

As a result, when you make decisions that are based on your reactions to this stimuli, your choices are not based on facts or on objective truth. Rather, you're buying those jeans because you hope they can make you look like Kate Moss. You're voting for that person because they made you afraid of what would happen if they weren't elected. So, if you want to beat these common traps, you'll have to change the way you think. You can do so by analyzing the logical premise of any piece of information. For example, just consider the content of a commercial that sells jeans. By flaunting celebrities like Kate Moss or Kim Kardashian, the company presents their product as something that beautiful people like. This is meant to entice you into believing that these jeans will make you beautiful by association. To break down the logic of this argument, you can divide the information into two separate premises.

Let's say the first premise posits that these jeans will make you look as attractive as Kate Moss. The second premise is that this company is using a convincing marketing technique to sell their product. You can then evaluate the probability of these premises by analyzing the available factual information. Is it likely that a simple pair of jeans will make you look like

Kate Moss? This is improbable because, no matter what you're wearing, you don't have her exact body type. At the end of the day, you still have your body, complete with all the characteristics that you like and dislike. So, no matter what you put on, you will still simply look like you in a new pair of jeans. This means that the clothing is unlikely to be as life-changing as the commercial promises. Therefore, the most plausible premise is that this clothing company has identified a convincing marketing strategy that will make people want to buy their clothes.

Although this is only one example, the good news is that you can apply this logical strategy to any scenario you encounter! Whether you're trying to understand a social situation, determine who to vote for, or consider a potential purchase, you can use this simple logic hack to improve all of your decisions.



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Final Summary

If jumping to conclusions was an Olympic sport, many of us would have gold medals! That's because human beings can quickly fall prey to irrational assumptions and illogical pitfalls if we don't actively guard against them. However, the author believes that it's possible to hack your brain's decision-making abilities by improving your relationship with logic.

By simply evaluating the logic and likelihood of any information, you can arrive at a logically sound conclusion. This in turn will help you to make an informed decision and avoid jumping to conclusions. And as a result, you will be able to simplify your life and steer clear of stressful assumptions and miscommunications!



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