

THE INEFFECTIVENESS OF EFFICIENCY

Interrupting Cognitive Biases for Critical Thought

By Arin N. Reeves



Our Efficient Brains

Ironically, the three-pound organ ensconced in our skull that is responsible for all of our conscious and unconscious thoughts is the organ we understand the least. The research on how our brains work—how we think—has been amassing at a tremendous rate over the last two decades, and we have learned and continue to learn that a lot of what we think we are thinking is actually not thinking. It is more like reacting or remembering, but it is not analytical or critical thought.

One of the primary reasons that we don't always think when we think we are thinking is that our brains are extremely efficient organs that work very hard to get the most thinking done using the least amount of energy possible. This, of course, makes sense because of the sheer volume of information that our brains have to collect, sift through, process, analyze, and prepare for action on a second-by-second basis. From making sure our hearts know to keep pumping to translating the red signal as a sign for us to press our foot down on the brake to stop the car to making a mental addition to your to-do list, our brains are working so hard that they are constantly scanning for potential shortcuts to operate more efficiently. While moderating the heart is clearly unconscious thought, driving a car initially requires conscious thought until the brain slowly relegates more of the driving activities to the unconscious realm. Driving, eventually, becomes less of a "thinking" activity and morphs into a "remembering how we have done this before" activity.

This focus on efficiency drives our brains to create as many cognitive shortcuts as possible, and these shortcuts are what we refer to as biases (also known as implicit biases, unconscious biases, and latent biases). Most of these cognitive shortcuts, or biases, are helpful, productive biases that allow us to live our lives more fully (imagine if putting on pants or buttoning your shirt had to be a conscious activity every morning!), but many biases may speed up our brain activity at the cost of critical thought and analysis. When biases lull us into thinking that we

are thinking critically when, in fact, we are taking shortcuts based on assumptions, we need to identify and interrupt these biases in order to actually do the critical thinking we intend to do.

For example, please *critically* read the following paragraph:

Aoccdrnig to rscheearch, it deosn't mtttaer in waht oredr the ltteers in a wrod are wittren, the olny iprmoatnt tihng is taht the frist and lsat ltteer be in the rghit plcae. The rset can be a toatl mses and you can sitll raed it wouthit a porbelm. Tihs is bcuseae the huamn mnid deos not raed ervey lteter by istlef, and it lkies to kcae sorht ctus wehn pssoilbe.

A *critical* reading of this paragraph would necessitate a rapid conclusion that the paragraph is technically written in nonsensical words; however, in its efforts toward efficiency, your brain quickly creates some shortcuts to make general sense of the words in order to keep you reading. This is one of the reasons it is often so difficult for us to edit written work accurately.

Though the above example is a harmless, albeit illustrative, one, the same principle is in effect when people are asked to listen to and repeat the following fact: "After being chided by the judge, the defendant stared at the witness while the expert witness was being questioned by the prosecutor." Since it takes more energy for the brain to remember words by themselves, it creates a shortcut by populating the words with images. Over 85 percent of people who have participated in this quick exercise see a male judge (75 percent see a white male judge); over 90 percent of people see a male defendant (70 percent see a male defendant of a racial/ethnic minority background); about 65 percent of people see a male expert (60 percent see a white male expert); and about 60 percent of people see a male prosecutor, with the same percentage seeing a white male prosecutor. These numbers don't change much even when the exercise is conducted with groups of attorneys that include judges.

Our efficient brains scan for all available

information, including media representations and stereotypes to create shortcuts; thus, the shortcuts, while efficient, may be misinformed and inaccurate. More importantly, if we think we are thinking when we are actually shortcutting, we think we have arrived at a conclusion when the thought is more akin to a prejudgment. That's when cognitive shortcuts become dangerous, especially when these shortcuts are happening in the brains of people whose thoughts have direct impact on other people's careers, freedoms, and even lives.

Interrupting Cognitive Biases

How do you recognize the shortcuts you are taking, and how do you interrupt these shortcuts so that you deliberately engage in active thought instead of slipping into unconscious reactions? There are five specific interventions that we have implemented with individuals (including many judges!) in various workplaces, and I invite you to use them, learn from them, and teach those around you to do the same.

1. Be open to the existence and influence of cognitive biases.

Being open to the existence and influence



Dr. Arin N. Reeves, (arin@nextions.com) JD, PhD, is president of the research and advisory firm Nextions LLC. A leading researcher, author,

and advisor on leadership, inclusion, cognitive biases, gender equity, and generational differences, she has written two bestselling books, *The Next IQ: The Next Level of Intelligence for 21st Century Leaders* and *One Size NEVER Fits All: Business Development Strategies Tailored for Women (And Most Men)*. This article is derived from the research, case studies, and practical suggestions that are explored in greater detail in *The Next IQ*.

Surprise is your brain's way of telling you that something you assumed does not align with reality.



of cognitive biases does not mean that you blindly accept these concepts; however, the more you become open to the ways in which cognitive biases shape your thinking, the more empowered you are to decrease the influence of the biases.

For example, people who are given a half-hour primer on cognitive biases can recall information from stories they had been told with more accuracy than people who had not been exposed to information on these biases. The people who had the primer were also more likely to know exactly what they didn't know.

2. Pay attention to surprise.

Surprise is your brain's way of telling you that something you assumed is not aligning with reality. Every single day, dozens of impressions formed by cognitive biases are challenged when they are confronted by real-world data. Most of us, however, note the surprise very briefly without much consideration or reflection. Taking a moment to pay attention to what surprised you and asking yourself why you were surprised is very helpful in interrupting current and future biases.

When a group of randomly selected judges were asked to observe their surprises over the course of one day, they were surprised by what surprised them. The following is a sample of their observations and reflections.

"One of the counsel in my court, I was surprised by her voice. I don't know why, but I was expecting her voice to be shrill. I realized this when she started speaking and I noted that her voice was not as annoying as I had expected it to be. I think she may have reminded me of someone I knew when I was younger who had an irritating voice."

"I was on a panel at a conference, and I met two of the other panelists in person for the first time that day. We had all spoken in preparation, and I had not realized that I had images of these two in my mind until I met them and realized that I was surprised by their appearance. I expected one woman to be a lot

older, and when I saw how young she looked, I wondered for a moment if she would be a good panelist even though I had been impressed with her during our phone calls."

"Yes, I'm surprised by certain information or testimony because I expected to hear something else. It does make me more skeptical of certain pieces of evidence than others. I believe I am objective in my analysis, but I did notice patterns of needing to be convinced more with certain things than others."

"I was set to meet with a potential supporter for my upcoming election campaign, and I was surprised by how friendly he was and how he wanted to discuss how he can be helpful instead of putting me in a position to convince him why he should support me. I had heard so many different things about this person, and none of them bore out in this meeting."

"I am often surprised by who is in my courtroom in support of the defendant. Sometimes I see a small family when I am expecting a large one. Sometimes I am expecting parents, and I am surprised to see no parents or family at all. I think we are humans and who we see in support of a defendant has to affect how we see the defendant."

Paying attention to surprise for a week gives you a few data points that you can use to help you map your biases. Who is most likely to surprise you? In what areas are you most likely to be surprised? Are you more likely to be surprised in the late afternoon as compared with the early morning? Mapping moments of surprise gives you some insight into when you may need to be particularly attentive to the possibility of unconsciously relying on cognitive biases.

3. Ask "Why?" 25 times to test your decisions for bias.

At key decision points, especially when

a decision you make will affect how others move forward, stop and ask yourself “Why do I think this?” and challenge each of your answers with another “Why do I think this?” until you have asked yourself the question 25 times. The following is a sample from a senior leader in an organization asking himself these questions about his selection for a critical hire.

1. *Why do I think this person is the best choice for this position?*
2. *Why do I think the other people who*

were finalists would not be good fits for this job?

3. *Why do I think he will be as good as I think he will be?*
4. *Why do I think that he has demonstrated excellence in his previous experience?*
5. *Why do I think that his past experience really matters to this job?*
6. *Why do I think that where he got his experience has prepared him for this job?*
7. *Why do I think he would be a good fit for our team?*
8. *Why do I think I believe what I've heard from his references?*
9. *Why do I think his particular educational pedigree tells me how he will do his job?*
10. *Why do I think I haven't asked for data if that particular pedigree actually results in the success that I think it does?*

We are only 10 questions in, and you can start to see how the questioning process excavates ways in which cognitive biases may have offered shortcuts to this leader in the hiring process that he may not have realized. Asking these questions takes time, but not asking these questions increases the odds that cognitive biases influenced your decision at times when analytical reasoning based on data should have led your thinking.

4. Reduce physical, emotional, and cognitive stressors in the environment.

Given that our brains are driven by a need for efficiency, it is critical for us to understand what makes our brains more likely to engage cognitive biases when we should be actively thinking in an analytical way. The more there are personal or environmental stressors that demand our brain's resources, the more likely we are to rely on cognitive biases for our decision making.

Physical stressors such as hunger, fatigue, pain, discomfort, etc., use up so much of our brain's resources that we are more likely to rely on biases when making decisions under these circumstances. Similarly, emotional stressors such as worrying about someone,

being sad or anxious about a personal matter, feeling rejected or embarrassed, etc., use up so many resources that biases take over to get the job of thinking done. Cognitive stressors are primarily present when we are multitasking. Multitasking requires our brain to think about two or more things at once, and to efficiently do so, our brains rely on cognitive biases to engage in this multi-thought process.

5. Expand your networks and information sources to expand your perspectives.

Our cognitive biases lead us to be more comfortable with people who look/think/act/believe like we do, and our cognitive biases become more pronounced when the people we trust rely on the same biases in their thought processes. In the same way, our cognitive biases lead us to certain information sources that agree with our biases and our biases are strengthened as these information sources reinforce those biases on a consistent basis. Relying on the same people and information resources for perspective locks us into limited perspectives.

Expanding your personal and professional networks to include people whose life experiences, political perspectives, and analytical styles are very different from yours allows you to strengthen your analytical thinking processes because the cognitive biases are continuously challenged by different perspectives that don't support them. Expanding your sources of information also accomplishes the same objective.

Think Again to Think Critically

Cognitive biases are dangerous when they become the foundation for decisions that we think we are basing in analytical thought. Cognitive biases lead to errors of fact in these situations, which eventually lead to errors in judgment. Understanding and interrupting these biases via the strategies discussed above allow us to actually think when we are supposed to be thinking so that our decisions are rooted in the objectivity of critical thinking instead of the ineffective efficiency of cognitive biases. ■